A PROJECT REPORT

ON

"PLACEMENT PREDICTION SYSTEM"

Submitted to

UNIVERSITY OF MUMBAI

In Partial Fulfilment of the Requirement for the Award of

BACHELOR'S DEGREE IN
COMPUTER ENGINEERING
BY

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UNDER THE GUIDANCE OF
PROF. Amer Syed

DEPARTMENT OF COMPUTER ENGINEERING
Anjuman-I-Islam's Kalsekar Technical Campus
SCHOOL OF ENGINEERING & TECHNOLOGY
Plot No. 2 & 3, Sector - 16, Near Thana Naka,
Khandagaon, New Panvel - 410206

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CERTIFICATE

This is certify that the project entitled

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submitted by

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is a record of bonafide work carried out by them, in the partial fulfilment of the requirement for the award of Degree of Bachelor of Engineering (Computer Engineering) at ***Anjuman-I-Islam's Kalsekar Technical Campus, Navi Mumbai*** under the University of MUMBAI. This work is done during year 2020-2021, under our guidance.

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Project I Approval for Bachelor of Engineering

This project entitled ***PLACEMENT PREDICTION SYSTEM*** by ***Patni Aamir Sattar, Bandar Zishan Yusuf, Shaikh Nousheen Mohammed Sadique, Shaikh Zara Misbah Anjum*** is approved for the degree of ***Bachelor of Engineering in Department of Computer Engineering.***

Examiners

1. .....
2. .....

Supervisors

1. .....
2. .....

Chairman

.....

Declaration

We declare that this written submission represents our ideas in our own words and where others ideas or words have been included, We have adequately cited and referenced the original sources. We also declare that We have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in our submission. We understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

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ABSTRACT

Engineering students are skeptical about what they want to pursue after graduation. With wide options available, ranging from campus recruitment to Masters, students are perplexed, adding factors like salaries and different job opportunities makes it even worse. There aren't any reliable platforms where a student can predict the outcomes from the start of engineering and take actions to bridge this gap for a better future. Students studying in Engineering colleges feel the exigency to know where they stand in comparison to others, and what kind of placement they would get.

The training and placement offices come in the picture when a student enters final year, but they are of no use to a student planning for future studies.Placement of students is one of the most important objectives of an educational institution. Institutions make great efforts to achieve placements for their students.The objective is to predict the students getting placed for the current year by analyzing the data collected from previous years students.Prediction about the student's performance is an integral part of an education system, as the overall growth of the student is directly proportional to the success rate of the students in their examinations and extracurricular activities. Therefore, there are many situations where the performance of the student needs to be predicted, for example, in identifying weak performing students and taking actions for their betterment.

The students have no platform to check their current position and build on their strengths. The platforms currently available, have not been trained on real and complete data sets, and do not learn from their wrong predictions which reduces the accuracy, in the long term. We aim to develop one. To ensure effective results, the model will be trained on a real data set and a vast number of qualitative as well as quantitative parameters will be considered.This model is proposed with an algorithm to predict the same. The data has been collected by the institution for which prediction is going to be done and by applying suitable data pre-processing techniques or to analyze previous year's student's historical data and predict placement possibilities of current students and aids to increase the placement percentage of the institutions.

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Chapter 1

Introduction

Campus placement of a student plays a very important role in a college. Campus placement is a process where companies visit colleges and identify students who are talented and qualified, before they complete their graduation. Therefore, taking a wise career decision regarding the placement after completing a particular course is crucial in a student's life. An educational institution contains a large number of student records. Therefore, finding patterns and characteristics in this large pool of data, will help find parameters that are the most important for this placement procedure. Nowadays educational institutes are growing in high numbers. Aim of every higher educational institute is to get their students a well-paid job through their placement cell. One of the largest challenges that higher learning establishments face nowadays is to boost the placement performance of scholars.

The main approach of the project is collecting the historical data of previous years students from institution and find the probability of current year students getting placed. In this model, it predicts the probability of a student getting placed or not.This will help teachers to take proper attention towards the progress of the student during the course of time. It will help to build reputation of the institute for having such a sophisticated system in place which helps the students to train and practice for campus placements. The present study concentrates on helping the students, bridging the gap between the industry and the curriculum, and showing them the path to a better future.

This model is design to predict whether a particular student getting placed or not in campus recruitment. To check the prediction the data collected from student are percentage, arrears, backlogs, cgpa and their domain knowledge. A high placement rate is a key entity in building the reputation of an educational institution. Hence such a system has a significant place in the educational system of any higher learning institution. Students are most benefited by this application. The students can manage their profile and give tests about programming languages, logic building and other such topics. The college has the student's quantitative data like CGPA, marks, internships, projects and certifications.The students get the statistical data

that will help with analytic and knowing how to improve themselves to get a better package. Statistical analytic also help the TPO to verify the data and if incorrect, TPO can change the data to maintain the accuracy.

1.1 Purpose

Planning for future role constitutes an important role in any Engineering student's life. This necessitates a system to assist the academic planners to design a strategy to improve the performance of students that will help them in getting placed at the earliest The higher educational institutions have capacity of knowledge such as academic performance of students, statistical details of students and various types of information in the hidden form. Now a day's data Mining techniques have a great importance in educational data set as it is rising daily. It is one of the computational processes that extract useful patterns or relationships from raw data. In educational field it is to increase learning process such as identifying, evaluating variables, extracting data set from the learning process. The campus placement of the students plays an important role in an educational institution.The main purpose of Prediction system is that it could help in the academic planning of an institution. A placement prediction system helps students to have an idea about where they stand and what to be done to obtain a good placement. A placement predictor is a system that could predict the chances or the type of company a pre-final year student has chances to be placed. This system is necessary for predicting student's placement using Data Mining Techniques by considering the student data-set which is uploaded by TPC.

1.2 Project Scope

The System would store all the academic as well as personal details of the students who wish to be placed and the Companies who offer jobs to the students. The details of the Companies as well as the students may be updated or modified or deleted to keep the information up to date.

- The system provide a fully automation of the placement process which is being carried out in an institution.
- The system is cost effective because the minimum requirement to use this is a specific browser with a proper internet connection.
- The system has a fully user-friendly environment to use which provide an ease to the end user.
- It contains a database which will be used for storing the student personal, academic, etc records.

1.3 Project Goals and Objectives

1.3.1 Goals

Our project main goal is to create placement guidance system which will use the concept of Machine learning. We intend to combine both qualitative and quantitative parameters for the decision making process. To do so we consider the academic history of the student as well as their skill set like, programming skills, communication skills, analytical skills and teamwork, which are tested by the hiring companies during the recruitment process. Though many research has been done previously on placement prediction using different methods, none of them gave consideration to qualitative parameters to a large extent, which plays a vital role in placement of any student. Thus, by taking this into account our aim is to achieve a system with greater than 85 % of accuracy.

Other project goals include the following:

- To simplify the overall placement process.
- To easily manage student data.
- To increase efficiency and accuracy of student data.
- To predict the chances of student getting placed.

1.3.2 Objectives

Predicting the placement of a student gives an idea to the placement office as well as the student on where they stand. Not all companies look for similar talents. If the strengths and weaknesses of the students are identified it would benefit the student in getting placed. The placement Office can work on identifying the weaknesses of the students and take measures of improvement so that the students can overcome the weakness and perform to the best of their abilities. Thus the key lies in assessing the capabilities of the student in the right areas and subjecting them to the right training which is essentially our objective behind creating such system.

- The main objective of placement prediction system is to analyse the company data and students data and make use of it to predict the overall chances of a particular student getting placed.
- To make placement process hassle free.
- This placement system is developed to override the problems prevailing in practicing manual system.

1.4 Organization of Report

The report is organized as follows : The introduction is given in Chapter 1.It describes the fundamental terms used in this project.It describes the Goal,Objectives and scope of this project. The Chapter 2 describes the review of the relevant various techniques in the literature systems. It describes the pros and cons of each technique with how to overcome those cons using new technology.

The project planning includes members and capabilities of this project ,roles and responsibilities of each member,Budget of Project and Project timeline is describe in Chapter 3. The Chapter 4 describes Functional and Nonfunctional Requirements of project.Along with this it also explain features of system and constraints of system.

The Chapter 5 includes Design Information with Class Diagram, Sequence Diagram , Component Diagram and System Architecture. Implementation of each module is explained in Chapter 6. Chapter 7 shows final Test Cases and Test Results. Chapter 8 includes Screenshot of outputs and Conclusion and Future Scope of Project is described in Chapter 9.

Chapter 2

Literature Survey

2.1 Paper-I : Predicting Student's Campus Placement Probability using Binary Logistic Regression

Students aspiring for technical education generally select educational institutions with good track record in campus placements. Many a times the reputation of such institute is determined by the pay packages offered by recruiters to its students. In this context it is pertinent to investigate and identify those factors that may influence the student campus placement chances in technical education.The State of Andhra Pradesh which has a high concentration of technical education institutes was chosen as the study area. A careful review of literature lead to the identification of six hypothetical determinants of student campus placement in technical education. A random sample 250 MBA student's placement data were gathered from different institutes and six predictor binary logistic regression model was fitted to the data to estimate the odds for the student campus placement. Estimated Results of the study indicate that the chances of campus placement is influenced by four predictors: CGPA, Specialization in PG, Specialization in UG and Gender.

2.1.1 Advantages of Paper

a. Automatically Detect patterns from data.

b. Independently predict result.

2.1.2 Disadvantages of Paper

a. Companies parameters and requirements are not included.

b. It only consider the parameters like percentage and backlogs credits.

2.1.3 How to overcome the problems mentioned in Paper

a. Companies actual requirement is stated before the placement process.

b. Student technical capabilities should be one of the most important criteria.

2.2 Paper Title-2: STUDENT PLACEMENT PREDICTION USING MACHINE LEARNING

In this paper the focus on machine learning technique to predict placement status of the student provided through text input. The placement prediction is done by machine learning using Naïve Bayes and K-nearest neighbor (KNN) algorithm. The algorithm considers the parameters such as USN, Tenth and PUC/Diploma results, CGPA, Technical and Aptitude Skills.

2.2.1 Advantages of Paper

a. Placements are always based on the individual performances of the students.

b. The study of the classification model for placement is based on classification approach which enables the recruiter to find the write kind of evaluation methods to select students for specific job.

2.2.2 Disadvantages of Paper

a. Student with low percentage are not selected.

b. This paper does not spot student potential and technical capabilities.

2.2.3 How to overcome the problems mentioned in Paper

a. Selection criteria is not only based on students percentage but also different parameters.

b. A different process is applied to check for student skills for technical or other potentials.

2.3 Paper Title-3:Students Placement Prediction using Machine Learning

The objective is to predict the students getting placed for the current year by analyzing the data collected from previous years students. This model is proposed with an algorithm to predict the same. The data has been collected by the institution for which prediction is going to be done and by applying suitable data pre-processing techniques. This model is prepared by using Logistic Regression algorithm. This algorithm independently predict the results and we then compare the efficiency of the

algorithm, which is based on the dataset. This model will helps the placement cell to focus on the potential students and help them to improve their technical and social skills. Keywords: Placement Prediction, Logistic Regression, Dataset, Machine Learning, Accuracy, Probability.

2.3.1 Advantages of Paper

a. All the required parameters are being considered for the placement process like percentage, cgpa and other domain knowledge.

b. It improve the student's performance, a work Has been analyzed and predicted using the algorithms.

2.3.2 Disadvantages of Paper

a. For model training it does not perform separation of training and testing.

b. There is not solution for missing values.

2.3.3 How to overcome the problems mentioned in Paper

a. The dataset must be divided into two parts training and testing which is to given to the model for training.

b. One in every of the foremost common plan to handle the matter is to require a mean of all the values of the same column and have it to replace the missing data.

2.4 Technical Review

As we all know that in almost every institution placement process plays a very vital role,thus the whole process of placement should be managed properly. Keeping this thing in mind we are building a web-based application i.e Placement Prediction System which will try to eradicate this problem.
For developing this system we are using Web-app,PhpMyadmin, and visual studio.

- Web-App
  A web application (or web app) is an application software that runs on a web server, unlike computer-based software programs that are stored locally on the Operating System (OS) of the device. Web applications are accessed by the user through a web browser with an active internet connection.It is an application program that is stored on a remote server and delivered over the Internet through a browser interface.Web services are Web apps by definition and many, although not all, websites contain Web apps.Web applications do not need to be downloaded since they are accessed through a network. Users can access a Web

application through a web browser such as Google Chrome, Mozilla Firefox or Safari.For a web app to operate, it needs a Web server, application server, and a database. Web servers manage the requests that come from a client, while the application server completes the requested task. A database can be used to store any needed information.Web applications have many different uses, and with those uses, comes many potential benefits.

Figure 2.1: Web-App

- PhpMyAdmin
  phpMyAdmin is a free software tool written in PHP, intended to handle the administration of MySQL over the Web. phpMyAdmin supports a wide range of operations on MySQL and MariaDB. Frequently used operations (managing databases, tables, columns, relations, indexes, users, permissions, etc) can be performed via the user interface, while you still have the ability to directly execute any SQL statement.phpMyAdmin is a free and open source administration tool for MySQL and MariaDB. As a portable web application written primarily in PHP, it has become one of the most popular MySQL administration tools, especially for web hosting services.phpMyAdmin is a free software tool written in PHP, intended to handle the administration of MySQL over the Web. phpMyAdmin supports a wide range of operations on MySQL and MariaDB. Frequently used operations (managing databases, tables, columns, relations, indexes, users, permissions, etc) can be performed via the user interface, while you still have the ability to directly execute any SQL statement.

Figure 2.2: PhpMyAdmin

- Visual Studio
  It is used to develop computer programs, as well as websites, web apps, web services and mobile apps. Visual Studio uses Microsoft software development platforms such as Windows API, Windows Forms, Windows Presentation Foundation, Windows Store and Microsoft Silverlight. It can produce both native code and managed code.Visual Studio includes a code editor supporting IntelliSense (the code completion component) as well as code refactoring. The integrated debugger works both as a source-level debugger and a machine-level debugger. Other built-in tools include a code profiler, designer for building GUI applications, web designer, class designer, and database schema designer. It accepts plug-ins that expand the functionality at almost every level—including adding support for source control systems.

Figure 2.3: Visual Studio

2.4.1 Advantages of Technology

- Web-App:
  a. Accessibility across devices for users.
  b. Customisation for different devices.
  c. Allowing multiple users access to the same version of an application.
  d. Web apps don't need to be installed.

e. Web apps can be accessed through various platforms such as a desktop, laptop, or mobile.

f. Protecting your data.

- phpMyAdmin:

a. Graceful maintenance operations, with no additional cost other than what will be spent for owning the database management systems itself.

b. Supports and acts flexible for majority of the commonly used file formats, which comes in handy for documentation purposes while working on the database management systems.

c. Separate panels for database manipulation, SQL query editing, status tracking, etc.

d. Assists in displaying all the active plugins from the connected databases.

- Visual Studio:

a. Accurate Coding. With Visual Studio IDE, users are provided live coding assistance regardless of the programming language they are utilizing.

b. Cross-platform support like windows,Linux,mac.

c. Quick Debugging.

d. Rigorous Testing.

e. Team Collaboration.

f. Customization Options.

2.4.2 Reasons to use this Technology

- Web-App:

a. Improved Efficiency.

b. 24 / 7 Accessibility.

c. Higher Levels of Security.

d. Easy Customisable and Scalable.

e. Easy Installation and Maintenance.

- phpMyAdmin:

a. My SQL database management.

b. Multiple-server administration.

c. Global or subset database searches.

d. Live charts to monitor My SQL server activity.

e. Web interface.

- Visual Studio:

a. Code editor.

b. Debugger.

c. Designer.

d. Web-designer development.

Chapter 3

Project Planning

3.1 Members and Capabilities

Table 3.1: Table of Capabilities

SR. No	Name of Member	Capabilities
1	Patni Aamir	Python,Java,ML Algorithm
2	Bandar Zishan	Python,ML Algorithm
3	Shaikh Nousheen	GUI design,SQL database,Java
4	Shaikh Zara	GUI design,SQL database,Java

Work Breakdown Structure

3.2 Roles and Responsibilities

Table 3.2: Table of Responsibilities

SR. No	Name of Member	Role	Responsibilities
1	Patni Aamir	Team Leader	Algorithm Implementation, Back-end development
2	Bandar Zishan	Member	Algorithm Implementation, Back-end development
3	Shaikh Nousheen	Member	GUI design,Database design,Documentation
4	Shaikh Zara	Member	GUI design,Database design

3.3 Assumptions and Constraints

3.3.1 Assumptions

The placement prediction system using machine learning is introduced by assuming that it will provide the result in the form of whether the student is a suitable candidate for fulfilling the criteria for a particular company or not.Also it will be able to store student information and will be able to determine the capabilities of a student in a particular domain.

We cannot consider the placement of students just by their academic performances because some students may be good at aptitude, technical and communication skills due to their low score in their academic that may tend to be their drawback. For predicting the placement of a Student needs parameters like cgpa, logical and technical skills Academic performances may be important but the model is design to predict the placements based on the parameters of the students.

3.3.2 Constraints

- The response time of a particular function should be minimum.
- All applications to the companies are to be made only through online system of the Training and Placement System.
- The corporate end and the college end will be able to post there, requirements and send messages directly to the student, or maybe even globally.
- The present work will be using a ML algorithm which is training itself, so the accuracy of the system will increase over time, making the system more reliable over time.

3.4 Project Management Approach

- We are following Spiral Model as an approach in our project.

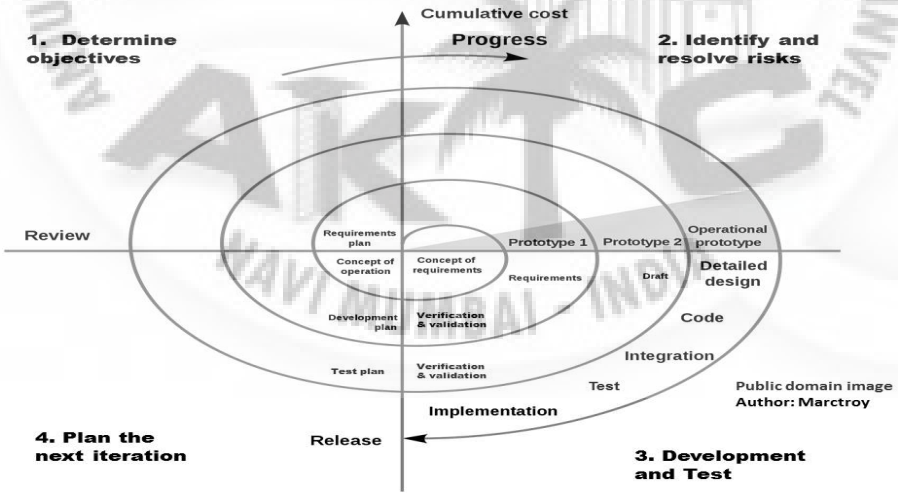

Figure 3.1: Spiral Model

Project will follow Spiral model for development. Spiral model is used where requirements are not freezed and wherever changes can be made at any instance of time. For developing this application we slowly get clear idea about requirements hence this is best suitable model for our application development. Also

we developed modules one by one and tested them as soon as they developed. Spiral model is one of the most important Software Development Life Cycle models, which provides support for Risk Handling. In its diagrammatic representation, it looks like a spiral with many loops. The exact number of loops of the spiral is unknown and can vary from project to project. Each loop of the spiral is called a Phase of the software development process.The exact number of phases needed to develop the product can be varied by the project manager depending upon the project risks. As the project manager dynamically determines the number of phases, so the project manager has an important role to develop a product using the spiral model.

- **Advantages of using Spiral Model**

  a. Risk Handling: The projects with many unknown risks that occur as the development proceeds, in that case, Spiral Model is the best development model to follow due to the risk analysis and risk handling at every phase.

  b. Good for large projects: It is recommended to use the Spiral Model in large and complex projects.

  c. Flexibility in Requirements: Change requests in the Requirements at later phase can be incorporated accurately by using this model.

  d. Customer Satisfaction: Customer can see the development of the product at the early phase of the software development and thus, they habituated with the system by using it before completion of the total product.

3.5 Ground Rules for the Project

a. Project should also be build from users prospective.

b. We will keep positive attitude towards Project and team members and everyone will respect each other.

c. Everyone will take initiative by sharing ideas, telling improvements in each other work.

d. If any member got stuck at something he/she should ask for help to one another.

3.6 Project Budget

The tools we are using such as phpMyadmin,Visual studio or the web-app is a free platform for every user to develop different software or application as per their requirements.So these things overall does not cost any charges for implementation.

3.7 Project Timeline

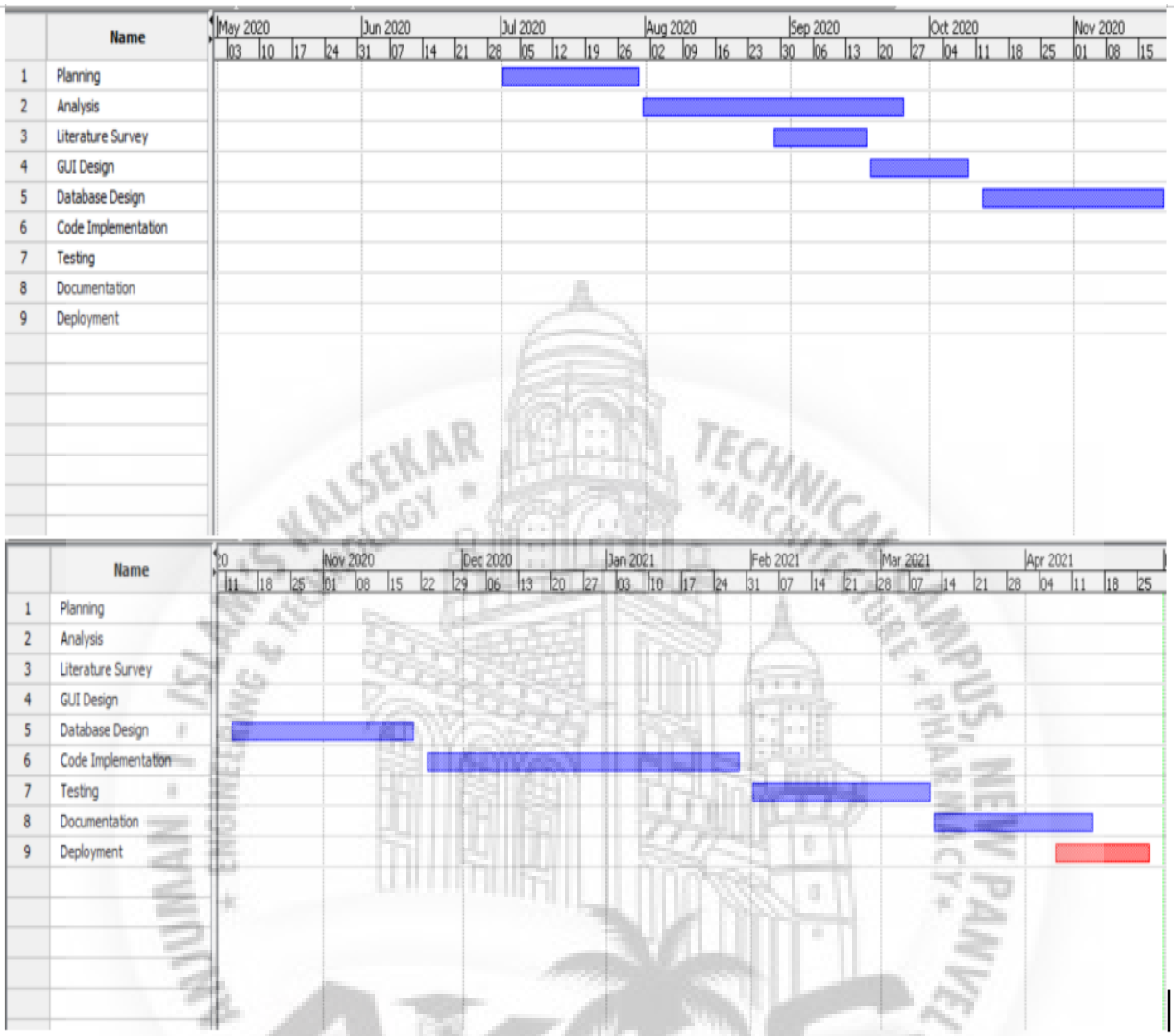

Figure 3.2: Project Timeline

Chapter 4

Software Requirements Specification

4.1 Overall Description

4.1.1 Product Perspective

The present system generally consider academic performances as a single parameter to judge whether a student can be placed or not during the campus placements. generally the parameter used to judge the capability of the student, performance in the academics during the first three years of engineering .Academic performance is not only important for getting selected in an interview but also depends on the awareness of student during the aptitude tests and interviews. For calculating the probability of a student getting placed by some data mining algorithms, sometimes gives a probability of more than 100% which is not feasible and denotes a wrong interpretation to the student .Negative probability is shown from certain algorithms which gives an wrong interpretation to the student. Academic performance is not only the parameter for judging the student. But other parameters like aptitude and technical knowledge should be also considered in order to determine the outcome for the student's future.Then we decided to come up with some solution that includes technologies and the solution which will provide the better solution for this.

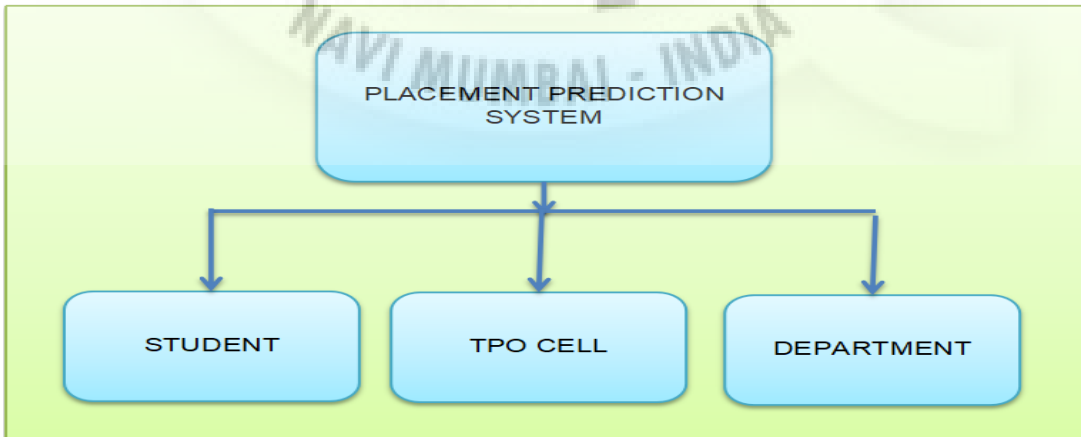

Figure 4.1: Basic components of system

4.1.2 Product Features

- The system will provide an ease to the placement process by reducing large number of manual or paper work.
- It predicts the probability of students getting placed and helps in uplifting their skills before the recruitment process starts.
- This system is designed for a need of company to carry out operations in smooth and effective manner.
- It will also help Faculty as well as placement cell in an institution to provide proper care towards improvement of students in a duration of course.
- This system has the significant place in the educational system of any higher learning institution.
- The college will have the statistics of all the students and what are the different domains they fall into.

4.1.3 User Classes and Characteristics

Different users will use the product differently depending on their needs hence user class will change according to the need of the user. But the basic characteristics of the classes will remain the same where the user will primary interact with main class of system that is authentication. The rest of classes are dependent on what type of user is accessing system.Different users will use the product differently depending on their needs hence user class will change according to the need of the user. But the basic characteristics of the classes will remain the same where the user will primary interact with main class of system that is authentication. The rest of classes are dependent on what type of user is accessing system.

4.1.4 Operating Environment

Our system is platform independent. That is it will run in any Mobile handset or laptop or PC. The only important thing is that the system should have a proper internet connection and a good version of browser for accessing the website application. Operating environment also consist of Fire base database. Fire base instance is implemented.

4.1.5 Design and Implementation Constraints

- Interface: The software must have a simple and User friendly Interface.
- Security: The files in which the information regarding securities and portfolios should be secured against malicious deformations.

- Fault Tolerance: Data should not become corrupted in case of system crash or power failure.

4.2 System Features

- Authorized Login.
- Registration.
- Perform Mock test and Technical test.
- Perform Prediction.
- Display Prediction.

4.2.1 Authorized Login

This module contain authorization of all the 3 users(Student,TPC,Department) through a login interface containing username and password.

4.2.2 Registration

This module provides registration to a particular student so that the student entry must be created into the database.

4.2.3 Perform mock test and technical test

This feature provides the student to perform a mock test or technical test so that they will be aware of their capabilities in a particular domain.

4.2.4 Perform Prediction

This module performs the prediction algorithm(Random forest algorithm)based on the criteria which is provided into that function

4.2.5 Display Prediction result

This section is used to display the predicted result of a student chances of getting placed into a company using a Pie-chart and Bar-graph.

4.3 External Interface Requirements

4.3.1 User Interfaces

- All users should register first to get all services.
- All the data asked in forms should be accurate to get best results.
- To fill form properly hints and tool tips are added to every input field.

4.3.2 Hardware Interfaces

- System with 1 GB RAM.
- 2 GB of available disk space.
- 1280 x 800 minimum screen resolution.
- Pentium processor.
- Mobile handset with browser.

4.3.3 Software Interfaces

- Visual Studio.
- Internet Connection.
- Browser.
- Operating System : Windows, Linux,MAC IOS

4.3.4 Communications Interfaces

The requirements associated with any communications functions required by this product, including messages, web browser, network server communications protocols, electronic forms, and so on. Communication standards that will be used, such as FTP or HTTP. Communication security or encryption issues will handle by using java scripts.

4.4 Nonfunctional Requirements

4.4.1 Performance Requirements

- The users must get the response within seconds. i.e. the response time of a particular function should be minimum.

- Completely separate business login at server side from the student interface ensures good performance.
- The system would exhibit high performance because it would be well optimized.

4.4.2 Safety Requirements

- The database containing the overall information should be prevented from causing any kind of damage because if it goes down the whole system will go down.
- The data which will be updated by the user will be committed in the database.
- The database should be maintained properly to ensure advance safety.

4.4.3 Security Requirements

- The major security aspect or requirement for the system should be preventing the data from any kind of major or minor attack which will cause loss in the confidentiality of the data.
- The data is stored to a cloud database rather than a local database to provide more security.

Chapter 5

System Design

5.1 System Requirements Definition

Placement Prediction System is a total management and informative system, which provides the up-to-date information of all the students in a particular college.Proposed system is an online application that can be accessed throughout the organization and outside as well with proper login provided.It is divided into Student,TPC and Department each performing its own role required.It will perform the prediction on the data-set being provide by the student in the data set.Different zones based on Student Marks and pointers must be classified for a particular company cut-off criteria.

5.1.1 Functional requirements

1. Through this application the chances of student for a particular company can be known by measuring different parameters required for placement.
2. Our system contain **Registration Module** by which all the 3 users (Student,TPC, Department) can register themselves and get authenticated.
3. The System would provide the facility of viewing both the personal and academic information of the students and also the company.
4. Based on the different criteria the prediction of chances of getting placed will be performed.
5. After prediction the probability of a particular student getting placed will be displayed using a pie-chart and Graph.

Use-case Diagram

Use case diagram are usually referred to as behaviour diagram used to describe a set of actions(use case) that some system or systems(subject) should or can perform in collaboration with one or more external users of the system(actors). Each use case should provide some observable and valuable result to the actors or other stakeholder of the system.

The below figure shows the use case diagram of our system which contains the following component.

- Profile data
- Apply for company
- Update marks
- Job approval status
- Chances of getting placed
- Change password by student
- Add/update/delete job/company
- Show student info
- Approve student
- No of enrolled student
- List of student getting placed

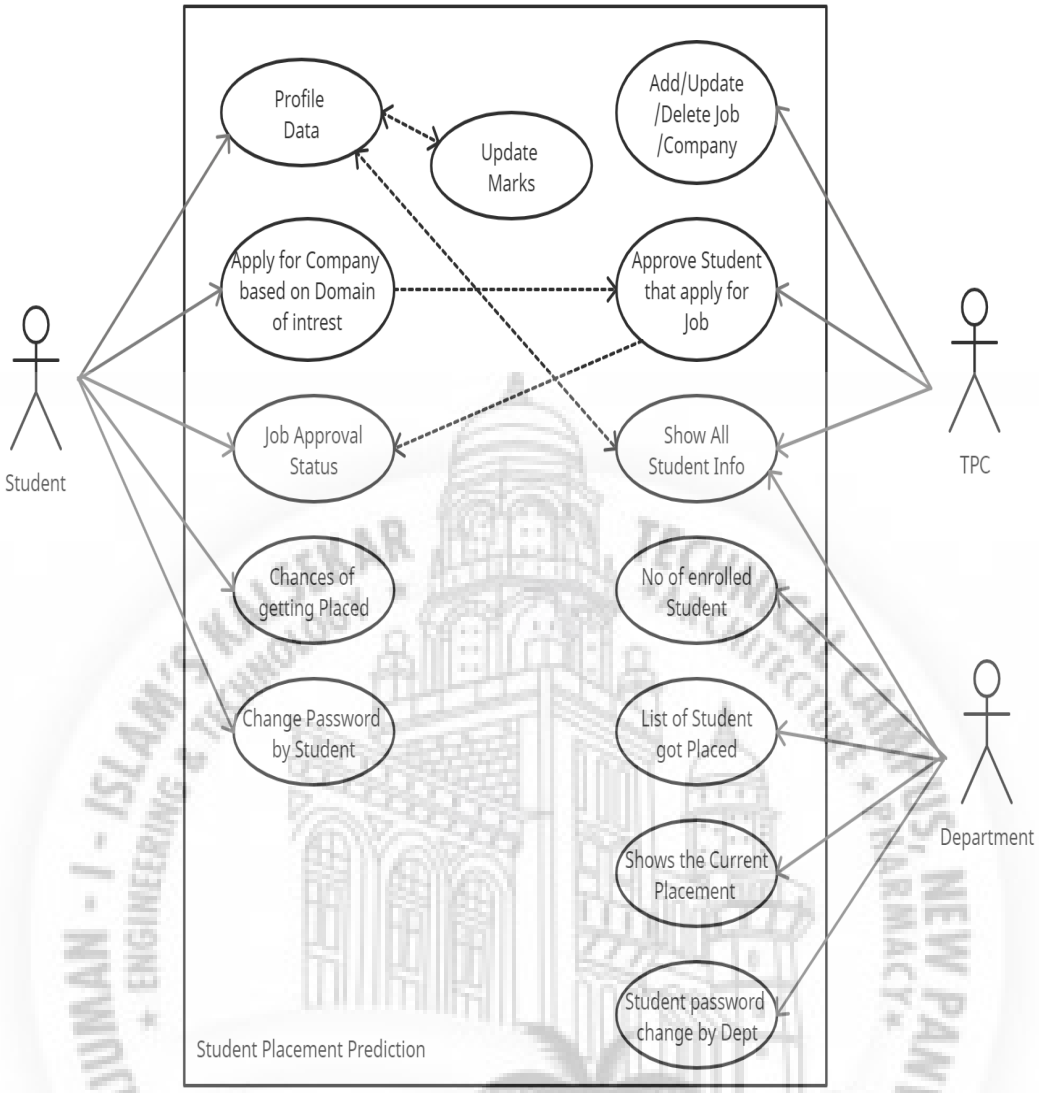

Figure 5.1: Usecase Diagram for Placement Prediction System

Data-flow Diagram

DFD Level 0 : DFD Level 0 depicting main outcome of the system,The User Interface for Student,TPC and department will preform different functionalities as per their accessibility and requirements.

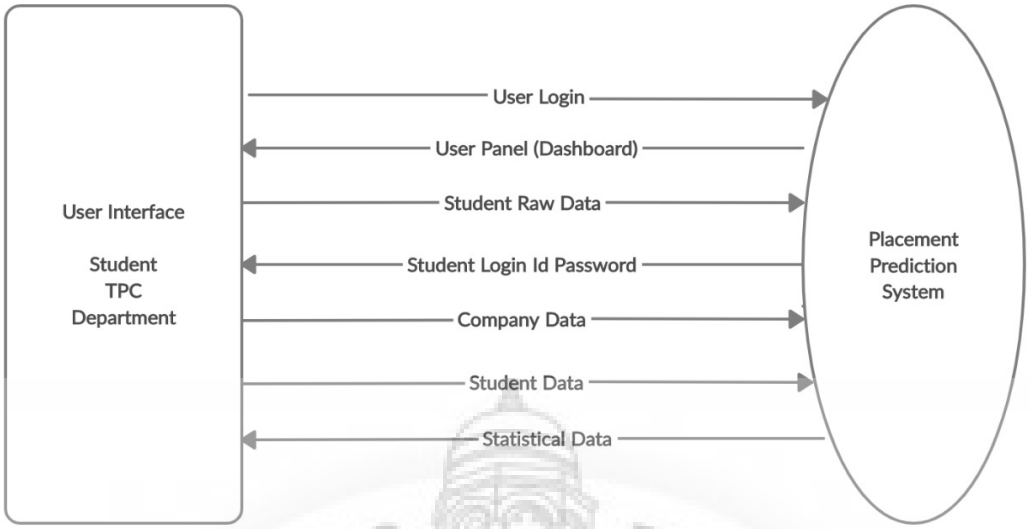

Figure 5.2: DFD Level 0 for Placement Prediction System

DFD Level 1 : DFD Level 1 for Placement Prediction System showing their main process flow in the system via registration details being stored into Database and performing Sign-up and Login into the system.

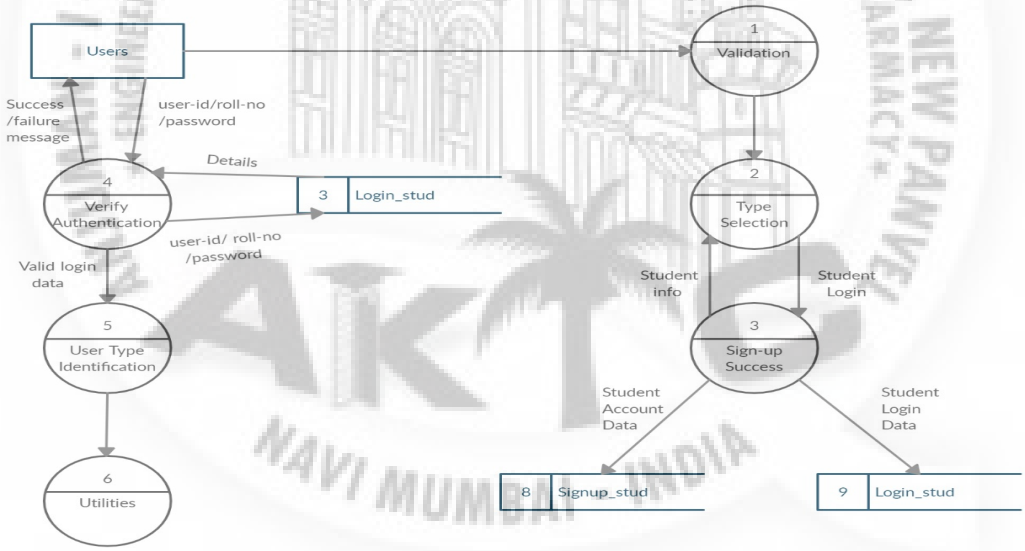

Figure 5.3: DFD Level 1 for Placement Prediction System

DFD Level 2 : DFD Level 2 for mentors showing their detail login process flow in the system via authentication modules, ,from product searching to product buying flow is there in dfd level 2 ,shopkeeper will receive the product and pack the product,delivery boy deliver it to customer and take payment.

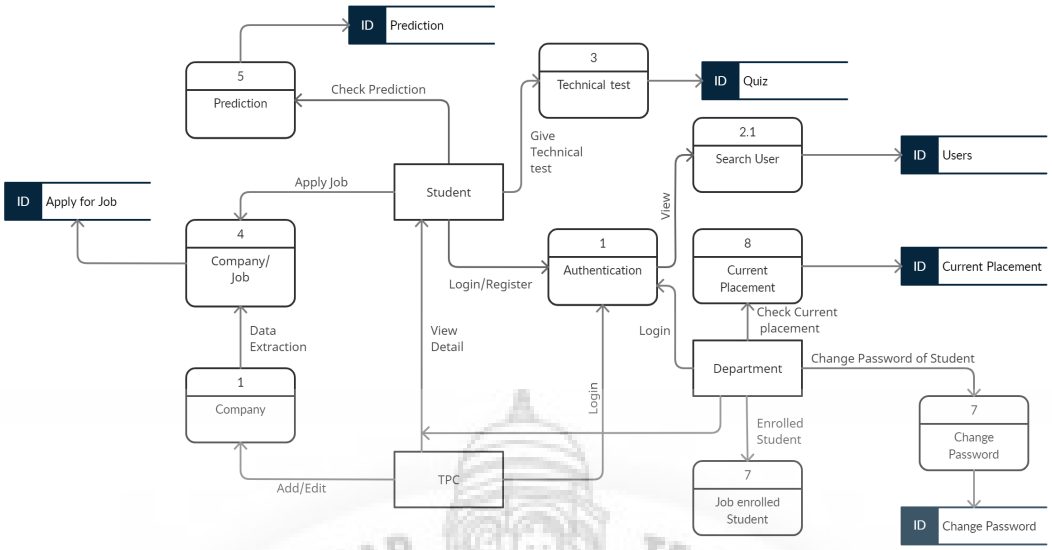

Figure 5.4: DFD Level 2 for Placement Prediction System

5.1.2 System requirements (non-functional requirements)

These are non-functional system properties such as availability, performance and safety etc. They define functions of a system, services and operational constraints in detail.

a. Availability - Application will be available 24*7.

b. Usability - Application implementation is feasible using technologies that are accessible to the end-users.

c. Portability - The interfaces are compatible with Desktop.

d. Performance Efficiency -Application is able to perform well in a proper time constraint.

e. Multi User System -Application is able to consider the presence of more than one user in the same environment. All the features of the system operates properly for all users and provides proper transparency.

f. Time Efficiency - Time taken for the executing of system is less.

5.2 System Architecture Design

System architecture of our system gives the overview of the project.

- The student can add personal info,marks,check prediction,apply for company,add domain of interest,view job approval status.
- The student can also perform mock test and technical skill test.

- The TPC can Add,Delete and edit company,add placement offer,Manage company data,validate and create student dataset.
- The department will have update of No of students assigned,No of student placed and number of students to be placed.

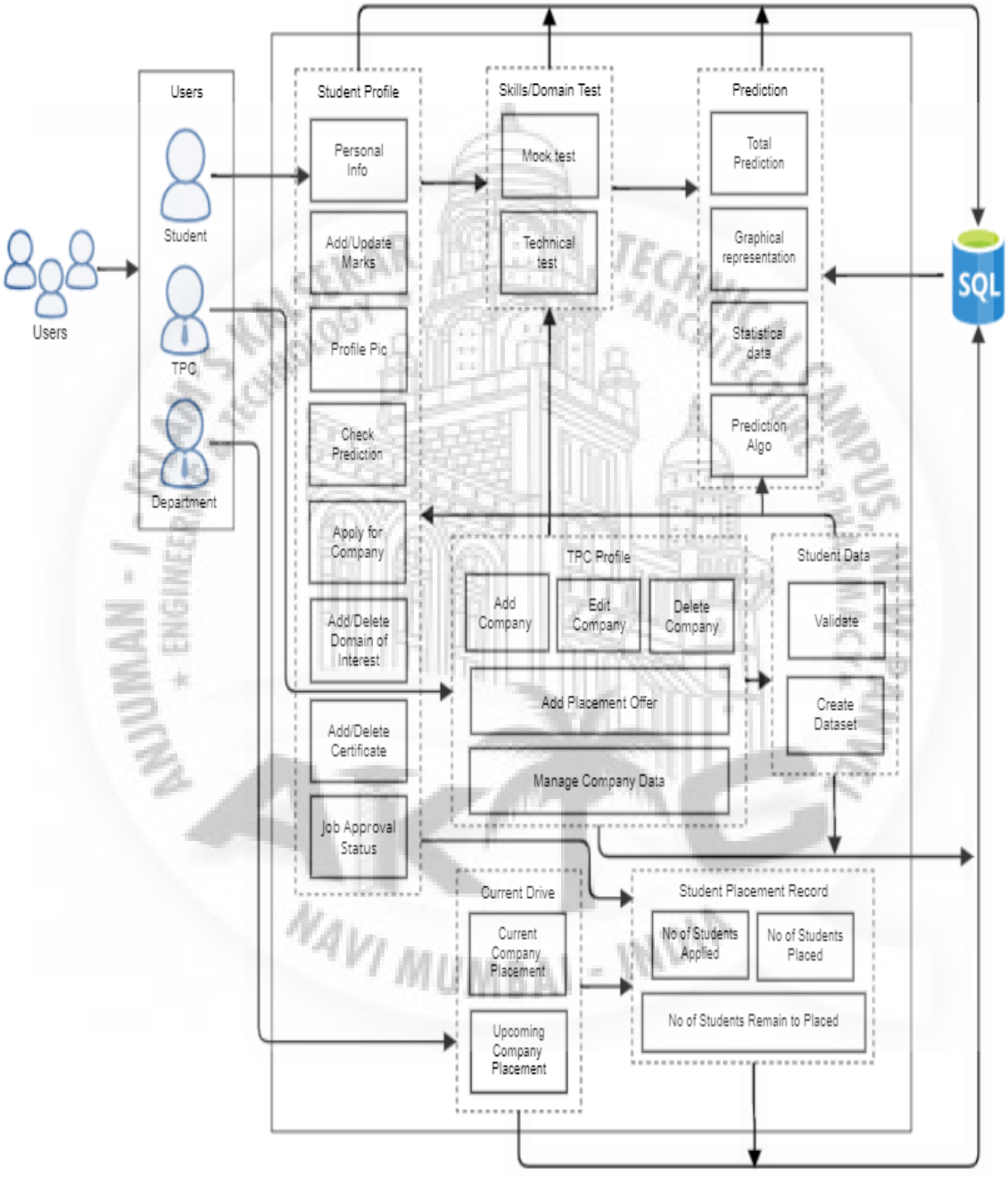

Figure 5.5: System Architecture for Placement Prediction System

5.2.1 Activity Diagram

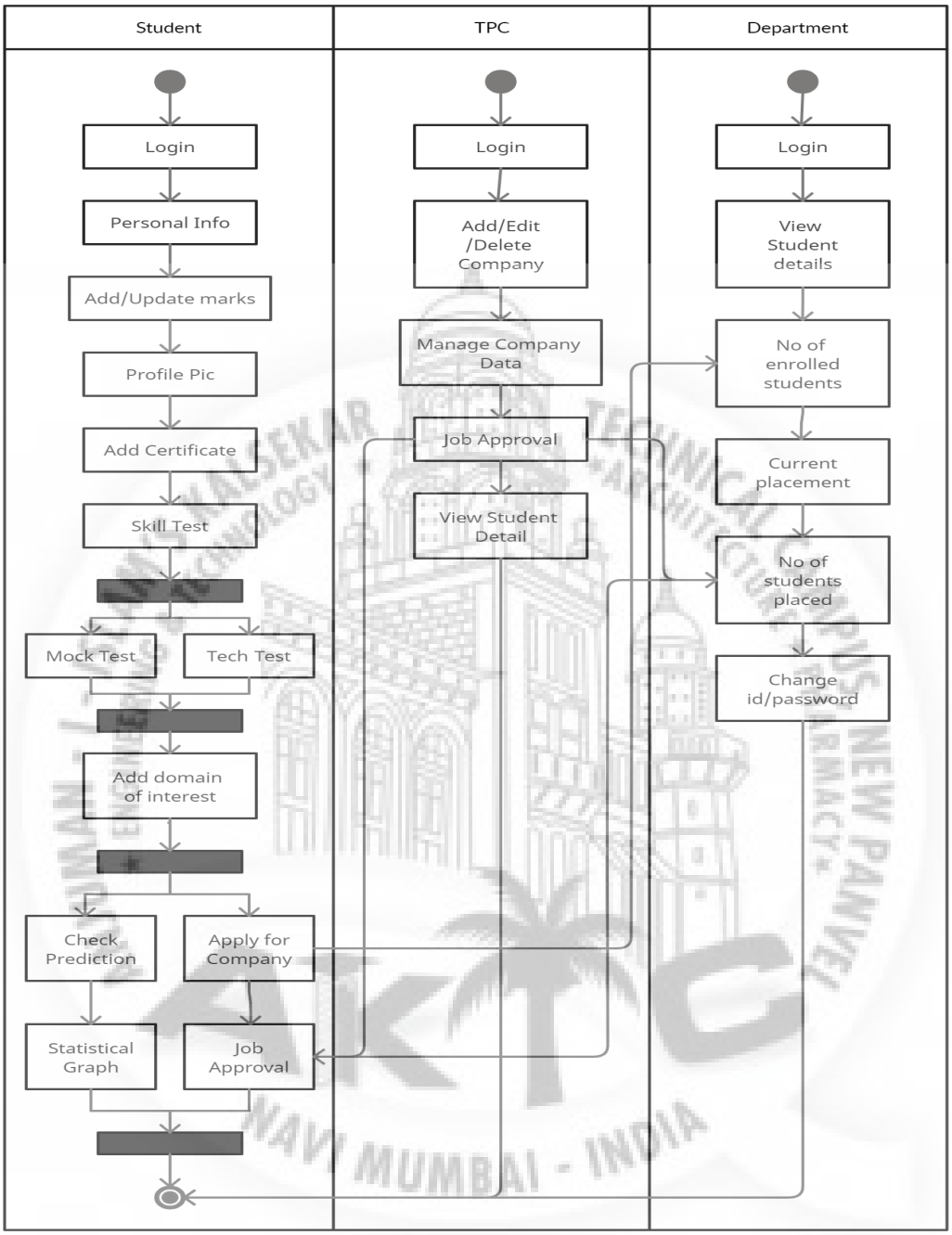

Figure 5.6: Activity Diagram for Placement Prediction System

5.3 Systems Integration

System integration (SI) is an engineering process concerned with joining different components as one large system. SI is also used to add value to a system through new functionalities provided by connecting functions of different systems. It ensures that each integrated subsystem functions as required.

5.3.1 Class Diagram

A class diagram in the Unified Modeling Language (UML) is a type of static structure diagram that describes the structure of a system by showing system's classes, their attributes, operations, and the relationship among objects. Class diagram showing each modules interconnection and relation between how one module is interacting with others.

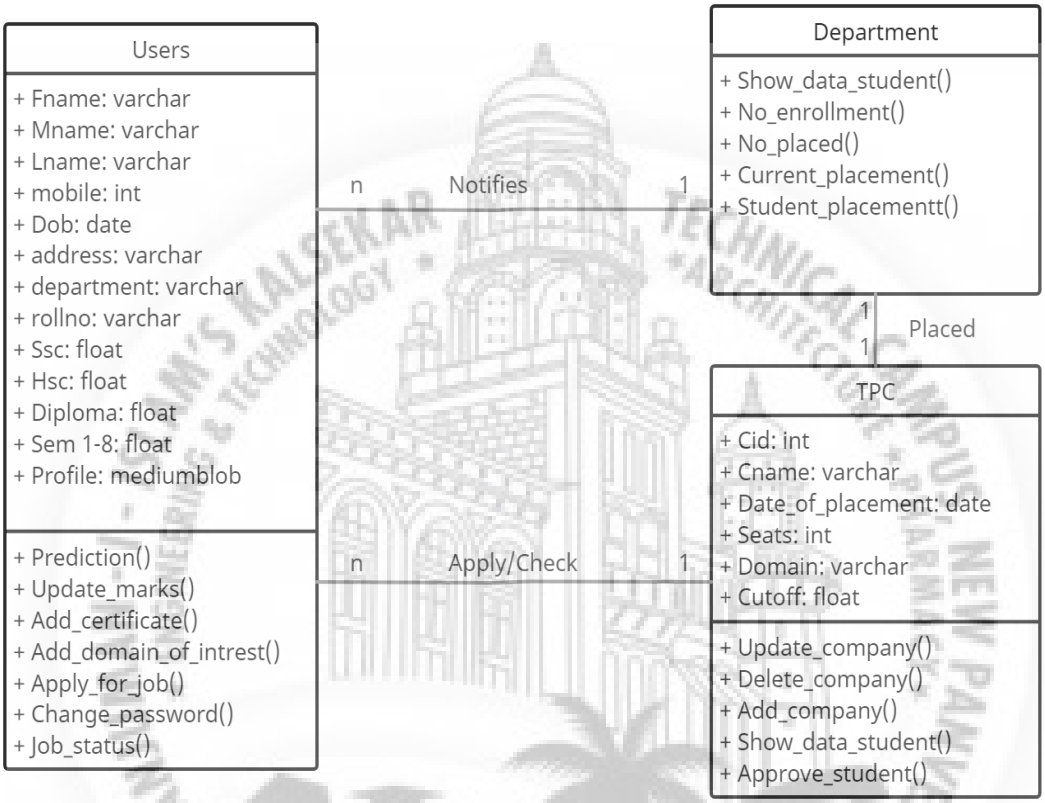

Figure 5.7: Class Diagram for Placement Prediction System

5.3.2 Sequence Diagram

A sequence diagram is an interaction diagram that shows how objects operates with one another and in what order. It is a construct of a message sequence chart. The following figure describe the sequence diagram for Placement Prediction System. It shows the sequence of Student,Department and TPC.

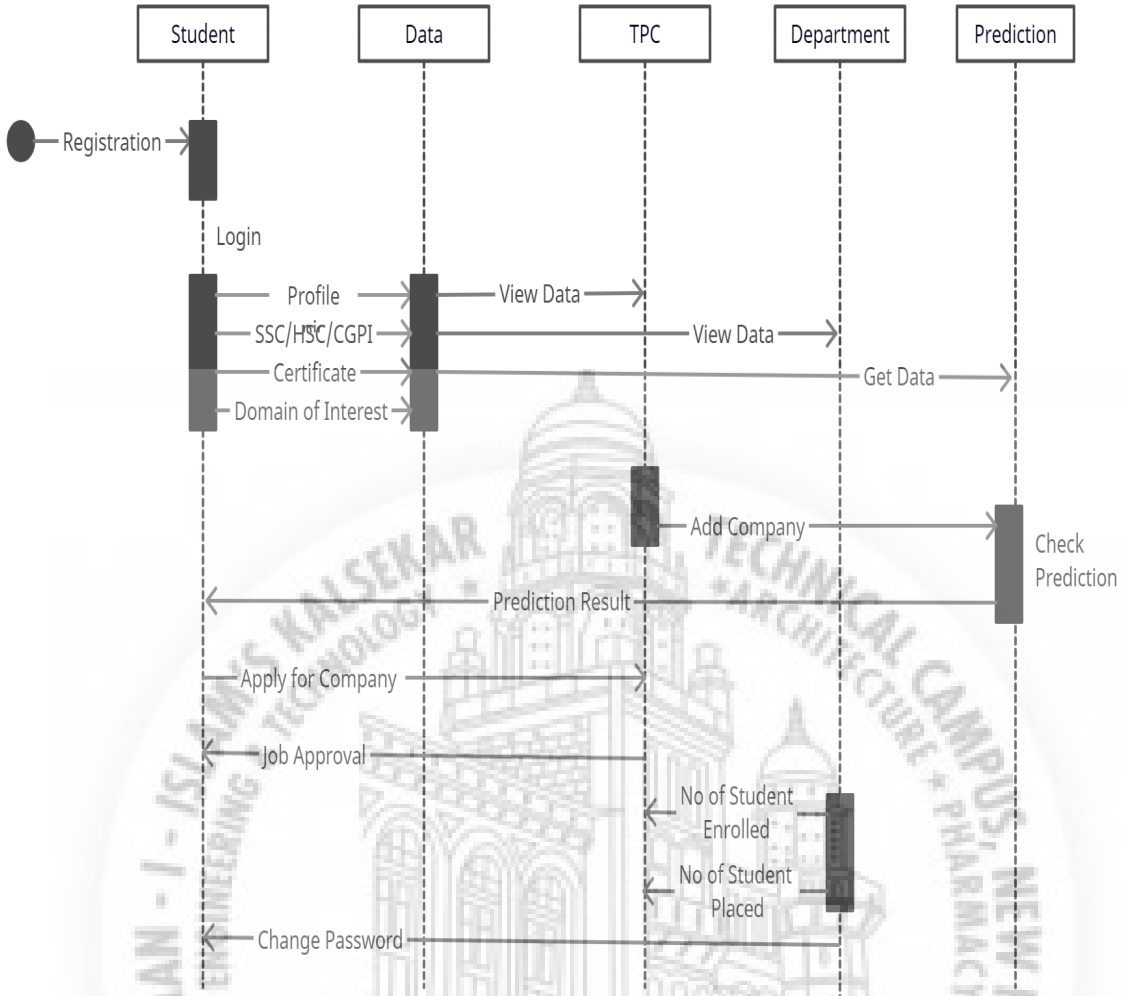

Figure 5.8: Sequence Diagram for Placement Prediction System

Chapter 6

Implementation

6.1 Module 1 -Prediction Process

The following file consist line of codes which is implemented using python language.The main function of this is to perform the process of prediction.The file contains code which will use to compile the algorithm used for prediction i.e.Random forest algorithm.

It contains all the necessary libraries which is required for prediction and it also contains the metrics function for calculations and finally it shows the student their desire chance of getting placed in companies by presenting it in graph format in the form of 'YES' and 'NO'.

- predict.py

```
#importing all needed libaries
import sys
import pandas as pd
from matplotlib import pyplot as plt
import numpy as np
path = sys .argv[1]

#reading CSV file
df = pd .read_csv(path)

#print(df)

#Calculating size of Independent col
sizes = df ["status"].value_counts(sort=1)
#print(sizes)

#drop all un-needed from DATASETS
df.drop(['ID'],axis=1,inplace=True)
df.drop(['Name'],axis=1,inplace=True)
df.drop(['date'],axis=1,inplace=True)
df.drop(['domain'],axis=1,inplace=True)
df.drop(['require'],axis=1,inplace=True)
df.drop(['found'],axis=1,inplace=True)
#print(df)
#drop all rows who have NA values
df =df.dropna()
```

```
27
28 #Convert non-numeric to numeric
29 #for status col
30 df.status[df.status == 'yes'] = 1
31 df.status[df.status == 'no'] = 2
32
33 #print(df)
34
35 #define dependent variable
36 Y = df ['status'].values
37 Y = Y.astype('int')
38
39 #define independent variable
40 X = df.drop(labels = ['status'],axis=1)
41
42 #split the datasets
43 from sklearn.model_selection import train_test_split
44 X_train, X_test, Y_train, Y_test = train_test_split (X,Y, test_size=0.9,
       random_state=15)
45
46 #print(X_train)
47
48 from sklearn.ensemble import RandomForestClassifier
49 e_estimators = 5
50 #calling Random Forest Classfier for Prediction
51 modal = RandomForestClassifier (e_estimators,random_state=15)
52
53 #fitting in modal
54 modal.fit(X_train, Y_train)
55
56 #calculating prediction
57 prediction_test = modal.predict(X_test)
58
59 #print(prediction_test)
60
61 #importing metric for accuracy
62 from sklearn import metrics
63 p = metrics.accuracy_score(Y_test, prediction_test)
64 #calculating it to percentage
65 m=p*100
66
67 #print("Accuracy = ",p)
68 #displaying it
69 print(m)
```

6.2 Module 2 - Main php file

This part consist line of codes developed using php.This is used for multiple functions working together as follows

- Provide the connection to the database.
- Login and Registration for students,TPC,Department.
- It includes inserting,updating,deleting and extracting the data from the data-set.
- Displaying student details to TPC and Department.
- It provides job status function.
- Displaying the Pie chart.
- Displaying the different zones depending on the chances of getting placed.
- All the complex queries required for the application has been included in this file.

- app.php

```
<?php
class App
{

//###############      TopLoginQuery      ##################
function tpoLoginForm()
{
$con = mysqli_connect ('localhost','root','','placement') ordie ('
    Unable To connect');
if(isset($_POST['tpologin']))
{
$username = $_POST ['username'];
$password = $_POST ['password'];
$result = mysqli_query ($con,"SELECT * FROMadminloginWHEREusername ='"
    . $_POST ["username"] . "' andpassword = '". $_POST ["password"]."'")
    ;
while($row = mysqli_fetch_array ($result)){
$check_username = $row ['username'];
$check_password = $row ['password'];
}
if($username == $check_username && $password == $check_password ){
session_start();
$_SESSION['tpoid'] = $username ;
echo '<script type="text/javascript">location.href = "tpopanel.php";</script
    >';
}
else{
echo '<script> alert ("Wrong Username/Password !!"); </script>';
echo '<script type="text/javascript">location.href = "login2.php";</script>'
    ;
```

```
26 }
27 }
28 }//end of tpoLoginForm() function
29
30 //################ StudentLoginquery ####################
31 function studentLoginForm()
32 {
33 $con = mysqli_connect ('localhost','root','','placement') ordie ('
    Unable To connect');
34 if(isset($_POST['studentlogin']))
35 {
36 $username = $_POST ['user'];
37 $password = $_POST ['pass'];
38 $result = mysqli_query ($con,"SELECT * FROMstudentloginWHEREid ='
    $username' ANDpassword ='$password'");
39 while($row = mysqli_fetch_array ($result)){
40 $check_username = $row ['id'];
41 $check_password = $row ['password'];
42 }
43 if($username == $check_username && $password == $check_password ){
44 session_start();
45 $_SESSION['user'] = $username ;
46 echo '<script type="text/javascript">location.href = "profile.php";</script>
    ';
47 }
48 else{
49 echo '<script> alert ("Wrong Username/Password !!"); </script>';
50 echo '<script type="text/javascript">location.href = "login2.php";</script>'
    ;
51 }
52 }
53 }//end of studentLoginForm() function
54
55 //########## DisplaytheofStudents ############
56 function displayName()
57 { include 'config.php';
58 $id=$_SESSION['user'];
59 $sql="SELECT fname FROM studentinfo where id='$id'";
60 $result=mysqli_query($conn,$sql);
61 $row=mysqli_fetch_array($result);
62 echo $row['fname'];
63 }//end of displayName() function
64 //################ DepartmentLoginQuery ###############
65 function deptLoginForm()
66 {
67 $con = mysqli_connect ('localhost','root','','placement') ordie ('
    Unable To connect');
68 if(isset($_POST['deptlogin']))
69 {
70 $username = $_POST ['deptuser'];
71 $password = $_POST ['deptpass'];
72 $result = mysqli_query ($con,"SELECT * FROMdeptloginWHEREusername ='
    $username' ANDpassword ='$password'");
73 while($row = mysqli_fetch_array ($result)){
74 $check_username = $row ['username'];
75 $check_password = $row ['password'];
76 }
77 if($username == $check_username && $password == $check_password ){
78 session_start();
79 $_SESSION['deptuser'] = $username ;
80 echo '<script type="text/javascript">location.href = "deptpanel.php";</
```

```
    script>';
}
else{
echo '<script> alert ("Wrong Username/Password !!"); </script>';
echo '<script type="text/javascript">location.href = "login2.php";</script>'
    ;
}
}
}//end of deptLoginForm() function

//########## TPCCompanyDataextract ########
function companyData()
{
include 'includes/displayCompany.php';
}//end of companyData() function
//######## StudentSignupcode #####
function studentDataAdd()
{
include 'config.php';
if(isset($_POST['add']))
{
$id=$_POST['rollno'];
$fname=$_POST['fname'];
$mname=$_POST['mname'];
$lname=$_POST['lname'];
$mobile=$_POST['mobile'];
$email=$_POST['email'];
$dept=$_POST['dept'];
$class=$_POST['class'];
$dob=$_POST['date'];
$address=$_POST['address'];
$password=$_POST['password'];
$sql2="INSERT INTO studentlogin (id,username,password) VALUES ('$id','
    $email','$password')";
$sql="INSERT INTO studentinfo (id,fname,mname,lname,mobile,email,dept,class,
    dob,address,password,profilepic) VALUES ('$id','$fname','$mname','$lname
    ','$mobile','$email','$dept',' $class ','$dob ','$address','$password','
    ')";
if(mysqli_query($conn,$sql2))
{
if (mysqli_query($conn, $sql )) {
echo '<script> alert ("Signup Completed"); </script>';
$sql="INSERT INTO `studentschooling`(`id`, `ssc`, `sscpyear`, `hsc`, `
    hscpyear`, `diploma`, `dippyear`, `p`) VALUES ('$id
    ','0','0','0','0','0','0','1')";
mysqli_query($conn, $sql );
                    $sql ="INSERT INTO `bemarks`(`
    id`, `sem1`, `sem2`, `sem3`, `sem4`, `sem5`, `sem6`, `sem7`, `sem8`,
      `p`) VALUES ('$id','0','0','0','0','0','0','0','0','1')";
mysqli_query($conn,$sql);
$path='/xampp/htdocs/Project/Certificates/'.$id;
mkdir($path);
header("Location:login2.php");
} else {
echo '<script> alert ("Something Went Wrong"); </script>';
}
}
}
mysqli_close($conn);
}//end of studentDataAdd() function
```

```
//change password
function changePassword()
{

$con = mysqli_connect ('localhost','root','','placement') ordie ('
    Unable To connect');
if(isset($_POST['change']))
{
$old_pass=$_POST['old_password'];
$new_password=$_POST['password'];
$c_password=$_POST['confirm_pwd'];
$user_id = '18dco03';

                    if                    ($new_password==$c_password)
{
if($old_pass==$new_password){
echo'<script>alert("old password and new password is same");</script>';
}
elseif($old_pass != $new_password )
{
$sql="SELECT *      FROMstudentloginWHEREid      ='$user_id'    ANDpassword     ='
    $old_pass'";
$db_check=mysqli_query($con,$sql);
$count=mysqli_num_rows($db_check);
if($count==1)
{
$sql2="UPDATE studentlogin SET password =  '$new_password' WHEREid  ='
    $user_id'";
$sql3="UPDATE studentinfo SET password =  '$new_password' WHEREid  ='
    $user_id'";
if(mysqli_query($con,$sql2)){
mysqli_query($con,$sql3);
echo'<script>alert("your password has been change");</script>';
mysqli_close($con);
}
}
}
}
}
}//end of changepassword function

//studentinfo extract and put in text area
function studinfo()
{
include 'includes/studentinfo.php';
}//end of studinfo()

//#########          StudentMarksAddtoDBFunction          ###############
function studmarks($x)
{
$conn = mysqli_connect ('localhost','root','','placement') ordie ('
    Unable To connect');
if(isset($_POST['addmarks']))
{
$rollnumber=$x;
$ssc=$_POST['ssc'];
$sscp=$_POST['sscp'];
$hsc=$_POST['hsc'];
$hscp=$_POST['hscp'];
$diploma=$_POST['diploma'];
$dipp=$_POST['dipp'];
```

```
188
189 $sql="UPDATE studentschooling SET ssc='$ssc',sscpyear='$sscp',hsc='$hsc',
        hscpyear='$hscp',diploma='$diploma',dippyear='$dipp',p='2' whereid ='
        $rollnumber'";
190 if(mysqli_query($conn,$sql))
191 {
192 echo '<script>alert("Marks Added in System");</script>';
193 }
194 mysqli_close($conn);
195 }
196 }//end of studmarks() function
197 //########## DisplayingtheStudentMarksfromDB ##############
198 function schooling($x)
199 {
200 $conn = mysqli_connect('localhost','root','','placement') ordie ('
        Unable to connect');
201 $sql = "SELECT * fromstudentschoolingwhereid ='$x'";
202 $result = mysqli_query($conn,$sql);
203 $row = mysqli_fetch_array($result);
204 if($row['p']==1){
205 echo'<button type="submit" name ="addmarks" data -toggle="modal" data -target
        ="#addm">Add</button>';
206 }
207 else
208 {
209 echo '<table class="table table-bordered">
210 <thead>
211 <tr>
212 <th> SSC </th>
213 <th> SSCYearofpassing </th>
214 <th> HSC </th>
215 <th> HSCYearofpassing </th>
216 <th> DIPLOMA </th>
217 <th> DiplomaYearofpassing </th>
218 <th></th>
219 </tr>
220 </thead>
221 <tbody>
222 ';
223 $sql= "SELECT id,ssc,sscpyear,hsc,hscpyear,diploma,
        dippyear FROM studentschooling where id='$x'";
224 $i=0;
225 $result = mysqli_query($conn,$sql);
226 while($row = mysqli_fetch_array($result)) {
227 echo '<tr id="'.$row["id"].'">';
228 echo'<td>'.$row["ssc"].'</td>';
229 echo'<td>'.$row["sscpyear"].'</td>';
230 echo'<td>'.$row["hsc"].'</td>';
231 echo'<td>'.$row["hscpyear"].'</td>';
232 echo'<td>'.$row["diploma"].'</td>';
233 echo'<td>'.$row["dippyear"].'</td>';
234 echo '<td>
235 <button type="button" class ="btn btn-success editbtn" data -toggle="modal"
        data -target="#updatemarks"><i class="fa fa-edit"></i> </button>
236 </td>
237 </tr>';
238 $i++;
239 }
240 echo'
241 </tbody>
242 </table>';
```

```
243
244 }
245 }//schooling($x)
246
247 //############                    StudentBEmarksaddingtoDBandCheckingfunction
    ############
248 function studBe($x)
249 {
250 $conn = mysqli_connect ('localhost','root','','placement') ordie ('
    Unable To connect');
251 if(isset($_POST['addbe']))
252 {
253 $sem1=$_POST['sem1'];
254  if ($sem1 == 'kt' || $sem1 =='KT')
255 {
256 $sem1=101;
257 }
258
259 $sem2=$_POST['sem2'];
260 if($sem2 == 'kt' || $sem2 =='KT')
261 {
262 $sem2=101;
263 }
264
265 $sem3=$_POST['sem3'];
266 if($sem3 == 'kt' || $sem3 =='KT')
267 {
268 $sem3=101;
269 }
270
271 $sem4=$_POST['sem4'];
272 if($sem4 == 'kt' || $sem4 =='KT')
273 {
274 $sem4=101;
275 }
276
277 $sem5=$_POST['sem5'];
278 if($sem5 == 'kt' || $sem5 =='KT')
279 {
280 $sem5=101;
281 }
282
283 $sem6=$_POST['sem6'];
284 if($sem6 == 'kt' || $sem6 =='KT')
285 {
286 $sem6=101;
287 }
288
289 $sem7=$_POST['sem7'];
290 if($sem7 == 'kt' || $sem7 =='KT')
291 {
292 $sem7=101;
293 }
294 elseif($sem7 == 'none' || $sem7 == 'NONE' || $sem7 == 'not given'){
295 $sem7=404;
296 }
297 $sem8=$_POST['sem8'];
298 if($sem8 == 'kt' || $sem8 =='KT')
299 {
300 $sem8=101;
301 }
```

```
elseif($sem8 == 'none' || $sem8 == 'NONE' || $sem8 == 'not given'){
$sem8=404;
}

$sql="UPDATE bemarks SET sem1='$sem1',sem2='$sem2',sem3='$sem3',sem4='$sem4',
    sem5='$sem5',sem6='$sem6',sem7='$sem7',sem8='$sem8',p='2' whereid ='$x'";
if(mysqli_query($conn,$sql))
{
echo '<script>alert("BE Pointer Added in System");</script>';
}
mysqli_close($conn);
}
}//end of studBe() function

//############ DisplayBEmarksfromDB ###########
function bemarks($x){
$conn = mysqli_connect ('localhost','root','','placement') ordie ('
    Unable to connect');
   $sql = "SELECT * frombemarkswhereid ='$x'";
$result = mysqli_query ($conn,$sql);
$row = mysqli_fetch_array ($result);
if($row['p']==1){
echo'<button type="submit" name ="addbe" data -toggle="modal" data -target="#
    addbe">Add</button>';
}
else
{
echo '<table class="table table-bordered">
<thead>
<tr>
<th> Sem1 </th>
<th> Sem2 </th>
<th> Sem3 </th>
<th> Sem4 </th>
<th> Sem5 </th>
<th> Sem6 </th>
<th> Sem7 </th>
<th> Sem8 </th>
<th> BEPointer </th>
<th> BEPercentage </th>
<th></th>
</tr>
</thead>
<tbody>
';
$sql= "SELECT * FROMbemarkswhereid ='$x'";
$i=0;
$result = mysqli_query ($conn,$sql);
while($row = mysqli_fetch_array ($result)) {
echo '<tr id="'.$row["id"].'">';
if($row['sem1'] != 101 ){
echo'<td>'.$row["sem1"].'</td>';
}
else{
echo'<td>'.'KT'.'</td>';
}
if($row['sem2'] != 101 ){
echo'<td>'.$row["sem2"].'</td>';
}
else{
echo'<td>'.'KT'.'</td>';
```

```
360 }
361
362 if($row['sem3']  != 101 ){
363 echo'<td>'.$row["sem3"].'</td>';
364 }
365 else{
366 echo'<td>'.'KT'.'</td>';
367 }
368
369 if($row['sem4']  != 101 ){
370 echo'<td>'.$row["sem4"].'</td>';
371 }
372 else{
373 echo'<td>'.'KT'.'</td>';
374 }
375
376 if($row['sem5']  != 101 ){
377 echo'<td>'.$row["sem5"].'</td>';
378 }
379 else{
380 echo'<td>'.'KT'.'</td>';
381 }
382 if($row['sem6']  != 101 ){
383 echo'<td>'.$row["sem6"].'</td>';
384 }
385 else{
386 echo'<td>'.'KT'.'</td>';
387 }
388 if($row['sem7']  != 404 && $row['sem7']  != 101 ){
389 echo'<td>'.$row["sem7"].'</td>';
390 }
391 elseif($row['sem7']  == 101 )
392 {
393 echo'<td>'.'KT'.'</td>';
394 }
395 else{
396 echo'<td>'.'Not Given'.'</td>';
397 }
398 if($row['sem8']  != 404 && $row['sem8']  != 101 ){
399 echo'<td>'.$row["sem8"].'</td>';
400 }
401 elseif($row['sem8']  == 101 )
402 {
403 echo'<td>'.'KT'.'</td>';
404 }
405 else{
406 echo'<td>'.'Not Given'.'</td>';
407 }
408 if($row['sem1']  != 101 && $row['sem2']  != 101 && $row['sem3']  != 101
    && $row['sem4']  != 101 && $row['sem5']  != 101 && $row['sem6']  !=
       101 && $row['sem7']  != 101 && $row['sem8']  != 101 ){
409 if($row['sem7']  == 404 ){
410 $beagg = $row['sem1'] + $row['sem2'] + $row['sem3'] + $row['sem4'] +
      $row['sem5'] + $row['sem6'];
411 $beagg =  $beagg  / 6 ;
412 echo '<td>'.number_format((float)$beagg,2,'.','').'</td>';
413 }
414 elseif($row['sem8']  == 404 ){
415 $beagg = $row['sem1'] + $row['sem2'] + $row['sem3'] + $row['sem4'] +
      $row['sem5'] + $row['sem6'] + $row['sem7'];
416 $beagg =  $beagg  / 7 ;
```

```
417 echo '<td>'.number_format((float)$beagg,2,'.','').'</td>';
418 }
419 else{
420 $beagg = $row['sem1'] + $row['sem2'] + $row['sem3'] + $row['sem4'] +
      $row['sem5'] + $row['sem6'] + $row['sem7'] + $row['sem8'];
421 $beagg = $beagg / 8 ;
422 echo '<td>'.number_format((float)$beagg,2,'.','').'</td>';
423 }
424 $beper = $beagg * 9 .5;
425 echo '<td>'.number_format((float)$beper,2,'.','').' %'.'</td>';}
426 else{
427 echo '<td>'.' '.'</td>';
428 echo '<td>'.' '.'</td>';
429 }
430 echo '<td>
431 <button type="button" class ="btn btn-success editbtn" data -toggle="modal"
      data -target="#updatebe"><i class="fa fa-edit"></i> </button>
432 </td>
433 </tr>';
434 $i++;
435 }
436 echo'
437 </tbody>
438 </table>';
439
440 }
441
442 }//end of bemarks() function
443 //################ UpdatefunctionforStudentmarks ################
444 function updateschoolingmarks($x){
445 $conn = mysqli_connect ('localhost','root','','placement') ordie ('
    Unable To connect');
446 $sql = "SELECT * FROMstudentschoolingWHEREid ='$x'";
447
448 $result = mysqli_query ($conn,$sql
449 while($row = mysqli_fetch_array ($result)) {
450 echo '<form action="" method ="POST" class ="design">
451 <div class="modal-body">
452
453 <div class="form-group">
454 <label> SSC </label>
455 <input type="text" name ="ssc" id ="ssc" class ="form-control" value ='.$row["
    ssc"].'>
456 </div>
457 <div class="form-group">
458 <label> SSCPassingyear </label>
459 <input type="text" name ="sscy" id ="ssy" class ="form-control" value ='.$row["
    sscpyear"].'>
460 </div>
461 <div class="form-group">
462 <label> HSC </label>
463 <input type="text" name ="hsc" id ="hsc" class ="form-control" value ='.$row["
    hsc"].'>
464 </div>
465 <div class="form-group">
466 <label> HSCPassingYear </label>
467 <input type="text" name ="hscy" id ="hscy" class ="form-control" value ='.$row[
    "hscpyear"].'>
468 </div>
469 <div class="form-group">
470 <label> Diploma </label>
```

```
<input type="text" name ="diploma" id ="diploma" class ="form-control" value ='
    .$row["diploma"].'>
</div>
<div class="form-group">
<label>      DiplomaPassingYear      </label>
<input type="text" name ="diplomay" id ="diplomay" class ="form-control" value
    ='.$row["dippyear"].'>
</div>
</div>
<div class="modal-footer">
<button type="button" class ="btn btn-secondary" data -dismiss="modal">Close</
    button>
<button type="submit" name ="updatedata" class ="btn btn-primary">Update Data
    </button>
</div>
</form>';
}
if(isset($_POST['updatedata']))
{$ssc=$_POST['ssc'];
$sscp=$_POST['sscy'];
$hsc=$_POST['hsc'];
$hscp=$_POST['hscy'];
$diploma=$_POST['diploma'];
$dipyear=$_POST['diplomay'];

$query = "UPDATE studentschooling SET ssc='$ssc',sscpyear='$sscp',hsc='$hsc
    ',hscpyear='$hscp',diploma='$diploma',dippyear='$dipyear' WHEREid ='$x'";
$query_run = mysqli_query ($conn, $query );

if($query_run)
{
echo '<script> alert ("Data Updated"); </script>';
echo '<script type="text/javascript">location.href = "profile.php";</script>
    ';
mysqli_close($conn);
}
else
{
echo '<script> alert ("Data Not Updated"); </script>';
}
}

}//end of updateschoolingmarks() function

//############          UpdatefunctionforStudentBEmarks          ################
function updatebemarks($x){
$conn = mysqli_connect ('localhost','root','','placement') ordie ('
    Unable To connect');
$sql = "SELECT * FROMbemarksWHEREid ='$x'";
$kt='KT';
$ng='Pursuing';
$result = mysqli_query ($conn,$sql);
while($row = mysqli_fetch_array ($result)) {
echo '<form action="" method ="POST" class ="design">

<div class="modal-body">
<div class="form-group">
<label> Sem1 </label>';
if($row["sem1"] != 101 ){
echo '<input type="text" name ="sem1" id ="sem1" class ="form-control" value =
    '.$row["sem1"].'>';
```

```
524 }
525 else
526 {
527 echo '<input type="text" name ="sem1" id ="sem1" class ="form-control" value =
        '.$kt.'>';
528 }
529
530 echo'       </div>
531 <div class="form-group">
532 <label>    Sem2    </label>';
533
534 if($row["sem2"]  != 101 ){
535 echo '<input type="text" name ="sem2" id ="sem2" class ="form-control" value =
        '.$row["sem2"].'>';
536 }
537 else
538 {
539 echo '<input type="text" name ="sem2" id ="sem2" class ="form-control" value =
        '.$kt.'>';
540 }
541 echo'</div>
542 <div class="form-group">
543 <label>    Sem3    </label>';
544
545 if($row["sem3"]  != 101 ){
546 echo '<input type="text" name ="sem3" id ="sem3" class ="form-control" value =
        '.$row["sem3"].'>';
547 }
548 else
549 {
550 echo '<input type="text" name ="sem3" id ="sem3" class ="form-control" value =
        '.$kt.'>';
551 }
552 echo'</div>
553 <div class="form-group">
554 <label>    Sem4    </label>';
555
556 if($row["sem4"]  != 101 ){
557 echo '<input type="text" name ="sem4" id ="sem4" class ="form-control" value =
        '.$row["sem4"].'>';
558 }
559 else
560 {
561 echo '<input type="text" name ="sem4" id ="sem4" class ="form-control" value =
        '.$kt.'>';
562 }
563 echo'</div>
564 <div class="form-group">
565 <label>    Sem5    </label>';
566 if($row["sem5"]  != 101 ){
567 echo '<input type="text" name ="sem5" id ="sem5" class ="form-control" value =
        '.$row["sem5"].'>';
568 }
569 else
570 {
571 echo '<input type="text" name ="sem5" id ="sem5" class ="form-control" value =
        '.$kt.'>';
572 }
573 echo'</div>
574 <div class="form-group">
575 <label>    Sem6    </label>';
```

```
576
577 if($row["sem6"] != 101 ){
578 echo '<input type="text" name ="sem6" id ="sem6" class ="form-control" value =
    '.$row["sem6"].'>';
579 }
580 else
581 {
582 echo '<input type="text" name ="sem6" id ="sem6" class ="form-control" value =
    '.$kt.'>';
583 }
584 echo'</div>
585 <div class="form-group">
586 <label> Sem7 </label>';
587 if($row["sem7"] == 404 ){
588 echo'<input type="text" name ="sem7" id ="sem7" class ="form-control" value ='.
    $ng.'>';
589 }
590 elseif($row["sem7"] == 101 ){
591 echo'<input type="text" name ="sem7" id ="sem7" class ="form-control" value ='.
    $kt.'>';
592 }
593 else{
594 echo'<input type="text" name ="sem7" id ="sem7" class ="form-control" value ='.
    $row["sem7"].'>';
595
596 }echo'</div>
597 <div class="form-group">
598 <label> Sem8 </label>';
599 if($row["sem8"] == 404 ){
600 echo'<input type="text" name ="sem8" id ="sem8" class ="form-control" value ='.
    $ng.'>';
601 }
602 elseif($row["sem8"] == 101 ){
603 echo'<input type="text" name ="sem8" id ="sem8" class ="form-control" value ='.
    $kt.'>';
604 }
605 else{
606 echo'<input type="text" name ="sem8" id ="sem8" class ="form-control" value ='.
    $row["sem8"].'>';
607 }
608
609 echo'</div>
610 </div>
611 <div class="modal-footer">
612 <button type="button" class ="btn btn-secondary" data -dismiss="modal">Close</
    button>
613 <button type="submit" name ="updatebe" class ="btn btn-primary">Update Data</
    button>
614 </div>
615 </form>';
616 }
617
618 if(isset($_POST['updatebe'])){
619
620 $sem1=$_POST['sem1'];
621 if($sem1 == 'kt' || $sem1 == 'KT'){
622 $sem1=101;
623 }
624 $sem2=$_POST['sem2'];
625 if($sem2 == 'kt' || $sem2 == 'KT'){
626 $sem2=101;
```

```
627 }
628 $sem3=$_POST['sem3'];
629 if($sem3 == 'kt' || $sem3 == 'KT'){
630 $sem3=101;
631 }
632 $sem4=$_POST['sem4'];
633 if($sem4== 'kt' || $sem4 == 'KT'){
634 $sem4=101;
635 }
636
637 $sem5=$_POST['sem5'];
638 if($sem5== 'kt' || $sem5 == 'KT'){
639 $sem5=101;
640 }
641 $sem6=$_POST['sem6'];
642 if($sem6 == 'kt' || $sem6 == 'KT'){
643 $sem6='101';
644 }
645 $sem7=$_POST['sem7'];
646 if($sem7== 'Pursuing' || $sem7 == 'pursuing' || $sem7 == 404 || $sem7 ==
    'none' || $sem7 =='None' || $sem7 =='NONE'){
647 $sem7=404;
648 }
649
650 $sem8=$_POST['sem8'];
651 if($sem8 == 'Pursuing' || $sem8 == 'pursuing' || $sem8 == 404 || $sem8
    =='none' || $sem8 =='None' || $sem8 =='NONE'){
652 $sem8=404;
653 }
654
655 $query = "UPDATE bemarks SET sem1='$sem1',sem2='$sem2',sem3='$sem3',sem4='
    $sem4',sem5='$sem5',sem6='$sem6',sem7='$sem7',sem8='$sem8' WHEREid ='$x'";
656 $query_run = mysqli_query ($conn, $query );
657
658 if($query_run)
659 {
660 echo '<script> alert ("Data Updated"); </script>';
661 echo '<script type="text/javascript">location.href = "profile.php";</script>
    ';
662 mysqli_close($conn);
663 }
664 else
665 {
666 echo '<script> alert ("Data Not Updated"); </script>';
667 }
668 }
669 }//end of updatebemarks() function
670
671 //####### DisplayingStudentDetailtoTPO , DEPT ############
672 function studentdata()
673 {
674 $conn = mysqli_connect ('localhost','root','','placement') ordie ('
    Unable To connect');
675 $sql="SELECT * FROMstudentinfo ";
676 $i=0;
677 $result = mysqli_query ($conn,$sql);
678 while($row = mysqli_fetch_array ($result)) {
679 echo '<tr id="'.$row["id"].'">';
680 echo'<td>'.$row["id"].'</td>';
681 echo'<td>'.$row["fname"].'</td>';
682 echo'<td>'.$row["email"].'</td>';
```

```
683 echo'<td>'.$row["dept"].'</td>';
684 echo '<td>
685 <button type="button" class ="btn btn-success viewdetailbtn">Detail</button>
686 </td>
687 </tr>';
688 $i++;
689 }
690
691 }//end of studentdata() function
692
693 //############ DisplayQuizmarks ###################
694 function DisplayTech($x){
695 $conn = mysqli_connect ('localhost','root','','quiz') ordie ('
    Unable To connect');
696 $sql="SELECT * FROMscoreswhereid ='$x'";
697
698 echo '<table class="table table-bordered">
699 <thead>
700 <tr>
701 <th>ID</th>
702 <th>Course</th>
703 <th>Marks</th>
704 <th>Result</th>
705 </tr>
706 </thead>
707 <tbody>
708 ';
709
710 $i=0;
711 $result = mysqli_query ($conn,$sql);
712 while($row = mysqli_fetch_array ($result)) {
713 echo '<tr id="'.$row["id"].'">';
714 echo'<td>'.$row["id"].'</td>';
715 echo'<td>'.$row["course"].'</td>';
716 echo'<td>'.$row["marks"].'</td>';
717 echo'<td>'.$row["results"].'</td>';
718 echo'
719 </tr>';
720 $i++;
721 }
722 echo'
723 </tbody>
724 </table>';
725
726 }//end of DisplayTech() function
727 //############## ProfilepictureUploadtoDBfunction
    ##################
728 //############## DisplayingprofilepicturefromDB ####################
729 function imgupload($x){
730 $user = $x ;
731
732 $con=mysqli_connect("localhost","root");
733 mysqli_select_db($con,'placement');
734 $displayquery = " select * fromprofileimgwheresid ='$user'";
735 $querydisplay = mysqli_query ($con,$displayquery);
736
737 $row = mysqli_num_rows ($querydisplay);
738
739 if($row)
740 {
741 //echo ' <div class="profile2"> ';
```

```
742
743 $displayquery = " select * fromprofileimgwheresid ='$user'";
744 $querydisplay = mysqli_query ($con,$displayquery);
745 //$row = mysqli_num_rows ($querydisplay);
746 while($result = mysqli_fetch_array ($querydisplay))
747 {
748 echo '<img src="';echo $result["image"]; echo '" class ="profile2">';
749 }
750
751
752 //echo ' </div>';
753 }
754 else
755 {
756
757 echo ' <form action="profile.php" method ="post" enctype ="multipart/
    form-data">
758
759 <input type="file" name ="file" id ="file">
760 <br>
761 <input type="submit" name ="submit">
762 </form>';
763
764 if(isset($_POST['submit'])){
765 $files = $_FILES ['file'];
766
767 $filename = $files ['name'];
768
769 $fileerror = $files ['error'];
770
771 $filetemp = $files ['tmp_name'];
772
773 $fileext = explode ('.',$filename);
774 $filecheck = strtolower (end($fileext));
775
776 $fileextstored = array ('png','PNG','jpg','JPG','jpeg','JPEG');
777
778 if(in_array($filecheck,$fileextstored))
779 {
780 $destinationfile = 'profileimg/'.$filename;
781 move_uploaded_file($filetemp,$destinationfile);
782
783 $q = "INSERT INTO `profileimg`(`sid`, `image`) VALUES ('$user','
    $destinationfile')";
784
785 $query = mysqli_query ($con,$q);
786
787 }
788 echo '<script type="text/javascript">location.href = "profile.php";</script>
    ';
789 }
790 }
791 }//end of imgupload() function
792
793 //########## StudentICONfunction ################
794 function icon($x){
795 $user = $x ;
796 $con=mysqli_connect("localhost","root");
797 mysqli_select_db($con,'placement');
798 $displayquery = " select * fromprofileimgwheresid ='$user'";
799 $querydisplay = mysqli_query ($con,$displayquery);
```

```
800
801 $row = mysqli_num_rows ($querydisplay);
802
803 if($row)
804 {
805 $displayquery = " select * fromprofileimgwheresid ='$user'";
806 $querydisplay = mysqli_query ($con,$displayquery);
807 //$row = mysqli_num_rows ($querydisplay);
808 while($result = mysqli_fetch_array ($querydisplay))
809 {
810 echo $result["image"];
811 }
812
813 }
814 }//end of icon() function
815
816 //############## TostoreDomainofInterestinDBfunction
    ################
817 function domainIn($x){
818 $user = $x ;
819 $con=mysqli_connect("localhost","root");
820
821 mysqli_select_db($con,'placement');
822
823 if(isset($_POST['AddDo'])){
824 $domainInterest = $_POST ["domainin"];
825
826 $uid=$user.$domainInterest;
827 $q ="INSERT INTO `domainin`(`did`, `domainin`, `sid`) VALUES ('$uid','
    $domainInterest','$user')";
828 mysqli_query($con,$q);
829 }
830 }//end of domainIn() function
831
832 //#################### DomainofInterestDisplayFunction
    ######################
833 function domainDis($x){
834 $con=mysqli_connect("localhost","root");
835 mysqli_select_db($con,'placement');
836 $sql="SELECT * FROM `domainin` WHEREsid ='$x'";
837
838 echo '<table class="table table-bordered">
839 <thead>
840 <tr>
841 <th>Interest of Domain</th>
842 <th>Remove</th>
843 </tr>
844 </thead>
845 <tbody>
846 ';
847
848 $i=0;
849 $result = mysqli_query ($con,$sql);
850 while($row = mysqli_fetch_array ($result)) {
851 echo '<tr id="'.$row["did"].'">';
852 echo'<td>'.$row["domainin"].'</td>';
853 echo'<td><center><button type="button" class ="btn btn-danger domainbtn">
    Remove</button></center></td>';
854 echo'</tr>';
855 $i++;
856 }
```

```
857 echo'
858 </tbody>
859 </table>';
860
861 }//end domainDis()  function
862
863 //##########            ChangeofStudentPasswordbyDepartment            ################
864 function studentpass(){
865 $conn = mysqli_connect ('localhost','root','','placement') ordie ('
    Unable To connect');
866 $sql="SELECT SI.id,SI.fname,SI.lname,SL.username,SL.
    password FROM studentinfo SI join studentlogin SL where SI.id = SL
    .id";
867 $i=0;
868 $result = mysqli_query ($conn,$sql);
869 while($row = mysqli_fetch_array ($result)) {
870 echo '<tr id="'.$row["id"].'">';
871 echo'<td>'.$row["id"].'</td>';
872 echo'<td>'.$row["fname"]." ".$row["lname"].'</td>';
873 echo'<td>'.$row["username"].'</td>';
874 echo'<td>'.$row["password"].'</td>';
875 echo '<td>
876 <a href="#"><button type="button" class ="btn btn-success passbtn">
    Change Password</button></a>
877 </td>
878 </tr>';
879 $i++;
880 }
881 }//end of studentpass()  function
882 //##############          ShowcurrentPlacementtoDept          ################
883 function currentplacement()
884 {
885 $conn = mysqli_connect ('localhost','root','','placement') ordie ('
    Unable To connect');
886 $date=date("Y-m-d");
887 $sql = "SELECT CL.cid, CL.cname,CP.cutoff,CP.
    year FROM companylist CL join companyplaced CP where CL.cid = CP.
    cid AND CP.year = '$date'";
888 $i=0;
889 $result = mysqli_query ($conn,$sql);
890 while($row = mysqli_fetch_array ($result)) {
891 echo '<tr id="'.$row["cid"].'">';
892 echo'<td>'.$row["cid"].'</td>';
893 echo'<td>'.$row["cname"].'</td>';
894 echo'<td>'.$row["cutoff"].'</td>';
895 echo'<td>'.$row["year"].'</td>';
896 echo'<td></td>';
897 echo '</tr>';
898 $i++;
899 }
900 }//end of currentplacement()  function
901
902 //#################          addComapnytoDBbyTPO          ##################
903 function addcompany(){
904 $conn = mysqli_connect ('localhost','root','','placement') ordie ('
    Unable To connect');
905 if(isset($_POST['add']))
906 {
907 $cid2=$_POST['compid'];
908 $year=$_POST['year'];
909 $seats=$_POST['seats'];
```

```
$domain=$_POST['domain'];
$cutoff=$_POST['cutoff'];
$id=$cid2.$domain.$year;
$sql = "INSERT INTO `companyplaced`(`cid`, `id`, `year`, `seats`, `domain`, `cutoff`) VALUES ('$cid2','$id','$year','$seats','$domain','$cutoff')";
if (mysqli_query($conn, $sql )) {
}
mysqli_close($conn);
}
}//end of addcompany() function

//################ StudentApplyforCompanyFunction ##################
function applycomp2($user,$b){
$conn = mysqli_connect ('localhost','root','','placement') ordie ('Unable To connect');
$sql2 ="SELECT domainin from domainin where sid='$user'";
$be = $b ;
$date=date("Y-m-d");
$result = mysqli_query ($conn,$sql2);
$j=0;
while($row2 = mysqli_fetch_array ($result)) {
$domain = $row2 ['domainin'];
$sql3 = "SELECT cl.cname,cp.cutoff, cp .domain,cp.year from companylist cl join companyplaced cp where cl.cid = cp .cid AND cp.year >'$date' ANDcp .cutoff <= $beANDcp .domain = '$domain'";
$i=0;
$result2 = mysqli_query ($conn,$sql3);
while($row = mysqli_fetch_array ($result2)) {
$id = $user .$row["cname"].$row["domain"].$row["year"];
$cname=$row["cname"];
$cutoff=$row["cutoff"];
$do=$row["domain"];
$year=$row["year"];
$q="select * fromapply4compwhereid = '$id'";
$r=mysqli_query($conn,$q);
$rows = mysqli_fetch_array ($r);
$repeat= $rows ['id'];
if($repeat == $id ){
}
else{
$sql4 = "INSERT INTO `tempapply`(`id`, `cname`, `cutoff`, `domain`, `year`, `sid`) VALUES ('$id','$cname','$cutoff','$do','$year','$user')";
mysqli_query($conn,$sql4);
}


$i++;
}
$j++;
}
}//end of applycomp2() function

//################
tempapplyfunctionworkascachebeforestoreinginDB
################
function tempapply($x){
$conn = mysqli_connect ('localhost','root','','placement') ordie ('Unable To connect');
$sql = "SELECT * FROMtempapplyWHERESid = '$x'";
```

```
961 $i=0;
962 $result = mysqli_query ($conn,$sql);
963 while($row = mysqli_fetch_array ($result)) {
964 echo '<tr id="'.$row["id"].'">';
965 echo'<td>'.$row["id"].'</td>';
966 echo'<td>'.$row["cname"].'</td>';
967 echo'<td>'.$row["cutoff"].'</td>';
968 echo'<td>'.$row["domain"].'</td>';
969 echo'<td>'.$row["year"].'</td>';
970 echo '<td>
971 <button type="button" class ="btn btn-success deletebtn">Apply</button>
972 </td>
973 </tr>';
974 $i++;
975 }
976
977 }//end of tempapply() function
978
979 //################ Showno . ofStudentsEnrollforDrivetoDep
    ##############
980 function enroll()
981 {
982 $conn = mysqli_connect ('localhost','root','','placement') ordie ('
    Unable To connect');
983 $sql = "SELECT * FROMapply4compwhereapprove ='0'";
984 $i=0;
985 $result = mysqli_query ($conn,$sql);
986 while($row = mysqli_fetch_array ($result)){
987 echo '<tr id="'.$row["id"].'">';
988 echo'<td>'.$row["sid"].'</td>';
989 echo'<td>'.$row["name"].'</td>';
990 echo'<td>'.$row["cname"].'</td>';
991 echo'<td>'.$row["domain"].'</td>';
992 echo'<td>'.$row["dateofapply"].'</td>';
993 echo '</tr>';
994 $i++;
995 }
996 }//end of enroll() function
997
998 //############## Showsno . studentplacedtocompanytoDept
    ##############
999 function placed(){
1000 $conn = mysqli_connect ('localhost','root','','placement') ordie ('Unab$sql
    = "SELECT * FROMapply4compwhereapprove ='yes'";
1001 $i=0;
1002 $result = mysqli_query ($conn,$sql);
1003 while($row = mysqli_fetch_array ($result)) {
1004 echo '<tr id="'.$row["id"].'">';
1005 echo'<td>'.$row["sid"].'</td>';
1006 echo'<td>'.$row["name"].'</td>';
1007 echo'<td>'.$row["cname"].'</td>';
1008 echo'<td>'.$row["domain"].'</td>';
1009 echo'<td>'.$row["dateofapply"].'</td>';
1010 echo '</tr>';
1011 $i++;
1012 }
1013 }//end of placed() function
1014
1015 //############## TPOcanaprovetheStudetnashe /
    She placed on the Company ##############
1016 function approve(){
```

```
$conn = mysqli_connect ('localhost','root','','placement') ordie ('
    Unable To connect');
$sql = "select * fromcompanylist ";

$result = mysqli_query ($conn,$sql);
while($row=mysqli_fetch_array($result)){
$comp = $row ['cname']." - ".$row['cid'];
$comp2 = $row ['cname'];
$sql2 = "SELECT * FROMapply4compwherecname = '$comp2' ANDapprove =
    '0'";
$r= mysqli_query ($conn,$sql2);
while($row2 = mysqli_fetch_array ($r)){
echo "<div class='card-body>;
<h4 class='card-title' style ='text-align:center; padding -top:2.5%;'>".$comp."
    </h4><br><br><br>
<div class='table-responsive'>
<table class='table table-bordered'>
<thead>
<tr>
<th> UniqueApplyID </th>
<th> StudentID </th>
<th> Name </th>
<th> Company </th>
<th> Domain </th>
<th>Date of Apply </th>
<th> Approve </th>
</tr>
</thead>
<tbody>";
echo '<tr id="'.$row2["id"].'">';
echo'<td>'.$row2["id"].'</td>';
echo'<td>'.$row2["sid"].'</td>';
echo'<td>'.$row2["name"].'</td>';
echo'<td>'.$row2["cname"].'</td>';
echo'<td>'.$row2["domain"].'</td>';
echo'<td>'.$row2["dateofapply"].'</td>';
echo '<td>
<button type="button" class ="btn btn-success deletebtn">Yes</button>
<button type="button" class ="btn btn-danger deletebtn2">NO</button>
</td>
</tr>';

echo "</tbody>
</table>
</div>
</div><br><br><br>";
}
}
}//end of approve() function
//#################### CalculateBEagg ########################
function BEagg($x){
$conn = mysqli_connect ('localhost','root','','placement') ordie ('
    Unable To connect');
$sql= "SELECT * FROMbemarkswhereid ='$x'";
$result = mysqli_query ($conn,$sql);
while($row = mysqli_fetch_array ($result)) {
$sem1=$row['sem1'];
$sem2=$row['sem2'];
$sem3=$row['sem3'];
$sem4=$row['sem4'];
$sem5=$row['sem5'];
```

```
$sem6=$row['sem6'];
$sem7=$row['sem7'];
$sem8=$row['sem8'];
}
if($sem1 != 101 && $sem2 != 101 && $sem3 != 101 && $sem4 != 101 && $sem5 != 101 && $sem6 != 101 && $sem7 != 101 && $sem8 != 101 )
{
if($sem7 == 404 ){
$beagg = $sem1 + $sem2 + $sem3 + $sem4 + $sem5 + $sem6 ;
$beagg = $beagg / 6 ;
return number_format((float)$beagg,2,'.','');
}
elseif($sem8 == 404 ){
$beagg = $sem1 + $sem2 + $sem3 + $sem4 + $sem5 + $sem6 + $sem7 ;
$beagg = $beagg /return number_format((float)$beagg,2,'.','');
}
else{
$beagg = $sem1 + $sem2 + $sem3 + $sem4 + $sem5 + $sem6 + $sem7 + $sem8 ;
$beagg = $beagg / 8 ;
return number_format((float)$beagg,2,'.','');
}
}
else{
return 0;
}

}//end BEagg Function

//#################          AddingCertificatestoDB          ##########################
function addCertificate($x){
$con=mysqli_connect("localhost","root");
mysqli_select_db($con,'placement');
if(isset($_POST['AddCert'])){

$course = $_POST['coursename'];

$date = $_POST['datecert'];

$files = $_FILES['file'];

$filename = $files['name'];

$fileerror = $files['error'];

$filetemp = $files['tmp_name'];

$fileext = explode('.',$filename);
$filecheck = strtolower(end($fileext));

$fileextstored = array('png','PNG','jpg','JPG','jpeg','JPEG');
if(in_array($filecheck,$fileextstored))
{
$destinationfile = 'Certificates/'.$x.'/'.$filename;
move_uploaded_file($filetemp,$destinationfile);

$q = "INSERT INTO certificate(`loc`, `course`, `coursedate`, `id`) VALUES ('$destinationfile','$course','$date','$x')";

$query = mysqli_query($con,$q);
```

```
1131
1132 }
1133 echo '<script type="text/javascript">location.href = "profile.php";</script
     >';
1134 }
1135 }//end of addCertificate() function
1136
1137 //################### DisplayStudentCertificates
     ############################
1138 function displayCertificate($x)
1139 $con=mysqli_connect("localhost","root");
1140 mysqli_select_db($con,'placement');
1141 $sql="SELECT * FROMcertificatewhereid ='$x'";
1142 $sql2="SELECT id FROM certificate where id='$x' groupbyid ";
1143 $result2 = mysqli_query ($con,$sql2);
1144 $result = mysqli_query ($con,$sql);
1145 $row = mysqli_fetch_array ($result2);
1146 if($row['id']==$x){
1147 echo '<table class="table table-bordered">
1148 <thead>
1149 <tr>
1150 <th>Course</th>
1151 <th>Date</th>
1152 <th>View Certificate</th>
1153 <th>Action</th>
1154 </tr>
1155 </thead>
1156 <tbody>;
1157
1158 while($row = mysqli_fetch_array ($result)) {
1159 echo '<tr id="'.$row["course"].'">';
1160 echo'<td>'.$row["course"].'</td>';
1161 echo'<td>'.$row["coursedate"].'</td>';
1162 echo'<td><button type="button" class ="btn btn-success viewbtn">
     View Certificate</button></td>';
1163 echo'<td><button type="button" class ="btn btn-danger removebtn">Remove</
     button></td>';
1164 echo'</tr>';
1165 }
1166 echo'
1167 </tbody>
1168 </table>';
1169 }
1170
1171 }//end of displayCertificate() function
1172
1173 //############### JobStatusFunction ##########################
1174 //######## Whichshowsthestatusofappliedjob #############
1175 function jobStatus($x){
1176 $con=mysqli_connect("localhost","root");
1177 mysqli_select_db($con,'placement');
1178 $sql1="select sid from apply4comp where approve='yes' GROUPbyapprove ";
1179 $r= mysqli_query ($con,$sql1);
1180 $check = mysqli_fetch_array ($r);
1181 $id=$check["sid"];
1182 if($id == $x )
1183 {
1184 $query = "SELECT cname,domain,dateofapply,
     approve FROM apply4comp where sid='$x' ANDapprove ='yes'";
1185 $result = mysqli_query ($con,$query);
1186
```

```
1187 echo '<div class="card-body">
1188 <label class="card-title">Placed Company List</label><br>
1189 <div class="table-responsive">
1190
1191 <table class="table table-bordered">
1192 <thead>
1193 <tr>
1194 <th> Company </th>
1195 <th> Domain </th>
1196 <th> DateofApplied </th>
1197 <th> Status </th>
1198 </tr>
1199 </thead>
1200 <tbody>';
1201 while($row = mysqli_fetch_array ($result)) {
1202 echo '<tr>';
1203 echo'<td>'.$row["cname"].'</td>';
1204 echo'<td>'.$row["domain"].'</td>';
1205 echo'<td>'.$row["dateofapply"].'</td>';
1206 echo'<td> Placed </td>';
1207 echo'</tr>';
1208 }
1209
1210 echo '</tbody>
1211 </table>
1212 </div></div>';
1213 }
1214
1215 $sql1="select sid from apply4comp where approve='no' GROUPbyapprove ";
1216 $r= mysqli_query ($con,$sql1);
1217 $check = mysqli_fetch_array ($r);
1218 $id=$check["sid"];
1219 if($id == $x )
1220 {
1221 $query = "SELECT cname,domain,dateofapply,
     approve FROM apply4comp where sid='$x' ANDapprove ='no'";
1222 $result = mysqli_query ($con,$query);
1223 echo '<div class="card-body">
1224 <label class="card-title">Rejected Company List</label><br>
1225 <div class="table-responsive">
1226 <table class="table table-bordered">
1227 <thead>
1228 <tr>
1229 <th> Company </th>
1230 <th> Domain </th>
1231 <th> DateofApplied </th>
1232 <th> Status </th>
1233 </tr></thead>
1234 <tbody>';
1235 while($row = mysqli_fetch_array ($result)) {
1236 echo '<tr>';
1237 echo'<td>'.$row["cname"].'</td>';
1238 echo'<td>'.$row["domain"].'</td>';
1239 echo'<td>'.$row["dateofapply"].'</td>';
1240 echo'<td> Rejected </td>';
1241 echo'</tr>';
1242 }
1243
1244 echo '</tbody>
1245 </table>
1246 </div></div>';
```

```
}

$sql1="select sid from apply4comp where approve='0' GROUPbyapprove ";
$r= mysqli_query ($con,$sql1);
$check = mysqli_fetch_array ($r);
$id=$check["sid"];
if($id == $x )
{
$query = "SELECT cname,domain,dateofapply,
    approve FROM apply4comp where sid='$x' ANDapprove ='0'";
$result = mysqli_query ($con,$query);

echo '<div class="card-body">
<label class="card-title">Pending Company List</label><br>
  <div class="table-responsive">
<table class="table table-bordered">
<thead>
<tr>
<th> Company </th>
<th> Domain </th>
<th> DateofApplied </th>
<th> Status </th>
</tr>
</thead>
<tbody>';
while($row = mysqli_fetch_array ($result)) {
echo '<tr>';
echo'<td>'.$row["cname"].'</td>';
echo'<td>'.$row["domain"].'</td>';
echo'<td>'.$row["dateofapply"].'</td>';
echo'<td> NotDecaler </td>';
echo'</tr>';
}
echo '</tbody>
</table>
</div></div>';
}
}//end of jobStatus() function

//################# CheckandShowStudents ##############################
//################# WhichparticularZoneStudentis #####################
//################# AlsocreateDatasetsfileforparticularstudent
    #####
//################# runningpythonAlgorithmandGetPredictionresult
    ###
//################# Displaythepiean //#################
           ThisIMPpartofProject ############################
function zone($be,$user)
{
$conn = mysqli_connect ('localhost','root','','placement') ordie ('
    Unable To connect');
if($be<= 4 .5){
echo '<form><div class="zone1"><h3> REDZONE </h3></div></form>';
return 404;
}
elseif($be>4.5 && $be <=6.5){
echo '<form><div class="zone2"><h3> ORANGEZONE </h3></div></form>';
echo '<br><br><br>';
echo '<form method="POST">
<input type="submit" name ="predict" class ="btn btn-success" value ="
    Prediction">
```

```
1302 </form>';
1303 }
1304 elseif($be>6.5  && $be <=10){
1305   echo  '<form><div class="zone3"><h3>  GREENZONE  </h3></div></form>';
1306 echo '<br><br><br>';
1307 echo '<form action="" method ="POST">
1308 <input type="submit" name ="predict" class ="btn btn-success" value ="
        Prediction">
1309 </form>';
1310 }//end of else-if
1311 if(isset($_POST['predict'])){
1312 $sql2 ="SELECT domainin from domainin where sid='$user'";
1313 //$date=date("Y-m-d");
1314 $result =  mysqli_query  ($conn,$sql2);
1315 $domains =  array  ();
1316 $i=0;
1317 while($row2 =  mysqli_fetch_assoc  ($result))  {
1318 $domains[]  = $row2 ['domainin'];
1319 //$domains[]  = $domain  ;
1320 $i++;}
1321 #print_r($domains);
1322
1323 $query = $conn ->query("SELECT cp.cid,cl.cname,cp.cutoff, cp ,domain,cp.
        year from companylist cl join companyplaced cp where cl.cid = cp .
        cid");
1324 //Exporting data to CSV file
1325 $delimiter = ",";
1326 $filename = $user  ;
1327 $n =  'C:/xampp/htdocs/Project/Datasets/'.$filename.'.csv';
1328 $f =  fopen  ($n,  'w');
1329 $fields = array  ('ID',  'Name',  'cutoff','input','require','domain','found','
        date','status');
1330 fputcsv($f,  $fields  ,  $delimiter  );
1331
1332 while($row =  $query  ->fetch_assoc()){
1333 if(in_array($row['domain'],$domains)){
1334 $found='match';
1335 if($be >= $row ['cutoff']){
1336 $yon =  'yes';
1337 }
1338 else{
1339 $yon =  'no';
1340 }
1341 if($be > $row ['cutoff']){
1342 $require='less';
1343 }elseif($be <  $row  ['cutoff']){
1344 $require='high';
1345 }
1346
1347 }
1348 else{
1349 $yon='no';
1350 $found='not-match';
1351 $require='average';
1352 }
1353 $lineData = array  ($row['cid'], $row ['cname'],$row['cutoff'],$be,$require,$row
        ['domain'],$found, $row ['year'],$yon);
1354 fputcsv($f,  $lineData  ,  $delimiter  );
1355 }
1356 //move back to beginning of file
1357 fseek($f, 0 );
```

```
1358 //output all remaining data on a file pointer
1359 fpassthru($f);
1360 //running python prediction file
1361 $path = 'python predict.py Datasets/'.$user.'.csv';
1362 $m = exec ($path,$o,$a);
1363 echo'<br><br><br>';
1364 $n = 100 - $m ;
1365 //data for pie chart
1366 echo "        <script type='text/javascript' src ='https://www.gstatic.com/
     charts/loader.js'></script>
1367 <script type='text/javascript'>
1368 google.charts.load('current', {packages:['corechart']});
1369 google.charts.setOnLoadCallback(drawChart);
1370 function drawChart() {
1371 var data = google .visualization.arrayToDataTable([
1372 ['Yes/No', 'Data'],
1373 ['YES', ".$m."],
1374 ['NO',".$n."]
1375 ]);
1376
1377 var options = {
1378 title: 'Chances of Getting Placed',
1379 is3D: true ,
1380 color: 'black',
1381 };
1382
1383 var chart = newgoogle .visualization.PieChart(document.getElementById('
     piechart_3d'));
1384 chart.draw(data, options );
1385 }
1386 </script>";
1387
1388 echo '<center><div id="piechart_3d" style ="width: 900px ; height : 500px ;"
     ></div></center>';
1389 echo '<br><center><label class="card-title">Figure: PieChart </label><center
     ><br>';
1390
1391 echo "<script type='text/javascript'>
1392 google.charts.load('current', {packages:['corechart']});
1393 google.charts.setOnLoadCallback(drawChart);
1394 function drawChart() {
1395 var data = google .visualization.arrayToDataTable([
1396 ['YES or NO', 'Chances', { role : 'style' } ],
1397 ['YES',".$m." , 'color:#b87333'],
1398 ['NO', ".$n.", 'color: #e5e4e2']
1399 ]);
1400
1401 var view = newgoogle .visualization.DataView(data);
1402 view.setColumns([0, 1 ,
1403 { calc : 'stringify',
1404 sourceColumn: 1 ,
1405 type: 'string',
1406 role: 'annotation' },
1407 2]);
1408
1409 var options = {
1410 title: 'Chances of getting Placed , in %',
1411 width: 900 ,
1412 height: 500 ,
1413 bar: {groupWidth: '100%'},
1414 legend: { position : 'none' },
```

```
1415 };
1416 var chart = newgoogle .visualization.BarChart(document.getElementById('
     barchart_values'));
1417 chart.draw(view, options );
1418 }
1419 </script>";
1420 echo '<center><div id="barchart_values" style ="width: 900px ; height : 500px
     ;"></div></center>';
1421 echo '<br><br><label class="card-title">Figure: BarGraph </label><br>';
1422 }//end of if condition
1423 }//end of zone() function
1424
1425 //############### showingwarningtoredzonestudents ##################
1426 function check($zone){
1427 if($zone == 404 ){
1428 echo "<h3 class='warning'> YOU 'RE IN RED ZONE !!!! <br> SORRY !!
        WECANTPREDICTYOU 'RE CHANCES OF GETTING PLACED <br>
         PLEASEIMPROVEYOURPOINTER </h3>";
1429 }
1430
1431 }//end of check() function
1432
1433 }//class end here
1434 $app = newapp ();
1435 // print_r ($app->getProjects());
1436
1437
1438 ?>
```

Chapter 7

System Testing

System Testing is a level of testing that validates the complete and fully integrated software product. The purpose of a system test is to evaluate the end-to-end system specifications. Usually, the software is only one element of a larger computer-based system. Below shows the test cases of our system.

7.1 Test Cases and Test Results

Test ID	Test Case Title	Test Condition	System Behavior	Expected Result
T01	Student Registration	All Valid Input	User Registered Successfully/ Unsuccessfully	Success/ Failed
T02	Student/TPC/ Department Login	Username and Password Required	User login Successfully/ Unsuccessfully	Success/ Failed
T03	Add New Company	Add company in database	Show company list to admin successfully	Successfully added List
T04	Delete Company	Data fetch and deleted from list	Show company in the list removed successfully	Successfully deleted company
T05	Update Company	Data fetch and updated	Show updated company successfully/Unsuccessfully	Successfully show updated list
T06	Add Job	Add job details into database	Show added New job	Successfully added Job
T07	View Student Profile by TPO	Data fetch and Will Show Student Profile	Show Student Profile	Successfully display Student Profile

T08	Update Student Profile	Add Student Details in Database	Details Added Successfully/ Unsuccessfully	Success/ Failed
T09	Update Student Marks	Add Student Marks in Database	Details Added Successfully/ Unsuccessfully	Success
T10	Add Student Domain of interest	Add Student Domain of Interest in Database	Details Added Successfully/ Unsuccessfully	Success
T11	Show no of enrolled student to department	Data fetch and Displayed	Show Enrolled Student List	Successfully List Shown
T12	Show no of placed student to Department	Data fetch and Displayed	Show No of Placed Student List	Successfully List Shown
T13	Change Student password by Department	Add New Password	Show updated Password	Password Changed Successfully
T14	Perform Mock Test	Performing the quiz	Mock test performed Successfully /Unsuccessfully	Success/Failed
T15	View Mock Test Result	Data Fetched and Display Marks	Show Mock Test Marks	Marks Displayed Successfully
T16	Perform Technical Skill Test	Performing the Technical Skill Test	Technical Skill test performed Successfully /Unsuccessfully	Success/Failed
T17	View Technical Skill Test Result	Data Fetched and Display Marks	Show Technical Skill Test Marks	Marks Displayed Successfully
T18	Show Prediction Zone to Student	Prediction Performed and Displayed	Prediction Zone Displayed Successfully/ Unsuccessfully	Success/ Failed
T19	Show Pie-Chart	Data fetched and Converted into Pie-Chart	Pie-Chart Displayed Successfully/ Unsuccessfully	Success/ Failed
T20	Show Bar-Graph	Data fetched and Converted into Bar-Graph	Bar-Graph Displayed Successfully/ Unsuccessfully	Success/ Failed

7.2 Test Cases

Title: Student registration – Successfully register a new Student.
Description: A new student should be able to successfully register themselves.

Precondition: The user has given valid credentials.
Assumption: a supported browser is being used.

Test Steps:

1. Click 'Sign Up' button.
2. Enter valid credentials in the field.
3. Click 'Register' button.

Expected Result: Student should be successfully registered on the website.
Actual Result: Student is successfully registered.

Title: Student/TPC/Department Login – Successful login in website.
Description: A registered user should be able to successfully login in website.

Precondition: The User is pre-registered.
Assumption: a supported browser is being used.

Test Steps:

1. Click 'SignIn' option.
2. Enter Username.
3. Enter password.
4. Click 'Log In' button.

Expected Result: User should be successfully logged in and redirected to home page.

Actual Result: User is redirected to home page.

Title: Add New Company-New company should be added.
Description: The Details of new company should be added into the company database.

Precondition: The admin must be logged in with their registered details.

Assumption: A supported browser is being used.

Test Steps:

1. Enter the company ID and company name.
2. Click on Submit button.
3. Add details of the company.
4. Click on Submit button option.

Expected Result: The details of new company should be added into list of companies.
Actual Result: The details are added successfully.

Title: Delete a particular company – Successfully remove company
Description: Data should be fetched from the list and should be deleted successfully

Precondition: One or more Company details must be present into the database.

Assumption: a supported browser is being used.

Test Steps:

1. Click on List of companies.
2. Select the Item to delete.

3. Click the Delete option.

Expected Result: A particular company should be removed successfully from the list.
Actual Result: Selected Company is removed from the list.

Title: Update a particular company – Successfully update company details.
Description: Data should be fetched from the list and should be updated successfully.

Precondition: One or more Company details must be present into the database.

Assumption: a supported browser is being used.

Test Steps:

1. Click on List of companies.
2. Select the Item to update.
3. Add new details.
4. Click on Update option.

Expected Result: A particular company should be Updated successfully in the list.
Actual Result: Selected Company is updated in the list.

Title: Add Job – Add job details into database.
Description: The details regarding a particular job should be updated into the database.

Precondition: The user has to provide input regarding the job.

Assumption: A supported browser is being used.

Test Steps:

1. Navigate to 'add job' page.
2. Add details in the column provided.
3. Click on 'Submit' button.

Expected Result: A new job details must be added successfully into the database.
Actual Result: The job details are being added successfully.

Title: View Student Profile-Displaying student profile through TPO login.
Description: The student profile must be fetched and displayed to the TPO.
Precondition: Student data should be available into the database.
Assumption: A supported browser is being used.

Test Steps:

1. Perform Login through TPO option.
2. Click on Student Profile option.
3. Select the student profile which should be displayed.

Expected Result: Student Profile must be displayed to the TPO.
Actual Result: Successfully student profile is being displayed to the TPO.

Title: Update Student Profile-Student profile must be updated.
Description: A new student should be able to update their details into the database.
Precondition: The user has to provide valid credentials.
Assumption: A supported browser is being used.

Test Steps:

1. Click on Student 'Login' button.
2. Enter valid credentials in the field.
3. Click 'Submit' button.

Expected Result: Student profile must be updated Successfully.
Actual Result: Profile is updated Successfully.

Title: Update Student Marks-Student marks must be updated.
Description: A new student should be able to update their marks into the database.

Precondition: The user has given valid credentials.
Assumption: a supported browser is being used.

Test Steps:

1. Click on Student 'Login' button.
2. Enter valid credentials in the field related to marks.
3. Click 'Submit' button.

Expected Result: Student marks must be updated Successfully.
Actual Result: Student marks is updated Successfully.

Title: Update Student Domain-Student Domain of interest must be updated.
Description: A student should be able to update their particular domain of interest into the database.

Precondition: The user has to provide valid credentials.
Assumption: A supported browser is being used.

Test Steps:

1. Click on Student 'Login' button.

2. Enter valid credentials in the field related to domain of interest.
3. Click 'Submit' button.

Expected Result: Student domain of interest must be updated Successfully.
Actual Result: Domain of interest is updated Successfully.

Title: Show no of enrolled student – A list of enrolled student must be displayed.
Description: A list of all the student enrolled must be displayed to the department.

Precondition: The data should be fetched and displayed from the database.

Assumption: A supported browser is being used.

Test Steps:

1. Perform 'Login' through Department option.
2. select the list of enrolled student.

Expected Result: A list of enrolled student must be generated successfully.
Actual Result: List is generated successfully.

Title: Show no of placed student – A list of placed student must be displayed.
Description: A list of all the student who got placement must be displayed to the department.

Precondition: The data should be fetched and displayed from the database.

Assumption: a supported browser is being used.

Test Steps:

1. Perform 'Login' through Department option.
2. select the list of placed student.

Expected Result: A list of placed student must be generated successfully.
Actual Result: List is generated successfully.

Title: Change student password-Student password can be changed through department login.
Description: In case if student urge to change the password the department can change it.

Precondition: The user has given valid credentials.
Assumption: A supported browser is being used.

Test Steps:

1. perform 'Login' through department.
2. Select student login/password option.
3. Click 'change password' button.
4. Enter the new password.
5. click on 'Submit' button.

Expected Result: Password should be changed successfully.
Actual Result: Password is changed successfully.

Title: Perform Mock Test – performing the quiz to know a student capabilities.
Description: Student should perform the mock test provided to them related to their particular domain.

Precondition: Answer the question in the mock test.

Assumption: A supported browser is being used.

Test Steps:

1. Perform 'Login' through student.
2. Select Mock test option.
3. Perform the mock test.
4. Click 'Submit ' button.

Expected Result: Mock test must be updated into Database .
Actual Result: Mock test is updated into Database.

Title: Perform Technical skill Test – performing the technical quiz to know a student capabilities.
Description: Student should perform the technical skill test provided to them related to their particular domain.

Precondition: Answer the question in the test.

Assumption: a supported browser is being used.

Test Steps:

1. Perform 'Login' through student.
2. Select technical skill test option.
3. Perform the technical test.
4. Click 'Submit ' button.

Expected Result: technical skill test must be updated into Database.
Actual Result: Technical skill test is updated into Database.

Title: View Mock Test Result – Fetch the result from the database.
Description: After mock test completion the test result should be displayed to the students.

Precondition: Perform the mock test.
Assumption: A supported browser is being used.

Test Steps:

1. Perform 'Login' through student.
2. Select Mock test option.
3. Perform the mock test.
4. Click 'Submit ' button.
5. Click on 'Result' option.

Expected Result: Mock test result must be displayed .
Actual Result: Mock test is displayed to the student.

Title: View technical test Result – Fetch the result from the database.
Description: After technical test completion the test result should be displayed to the students.
Precondition: Perform the technical test.
Assumption: A supported browser is being used.

Test Steps:

1. Perform 'Login' through student.
2. Select technical test option.
3. Perform the technical test.
4. Click 'Submit ' button.
5. click on 'Result' option.

Expected Result: Technical test result must be displayed.
Actual Result: Technical test is displayed to the student.

Title: Show Prediction Zone – The different zone according to the student criteria must be displayed.
Description: Student chances of getting placed must be displayed.
Precondition: Perform the Prediction.
Assumption: A supported browser is being used.

Test Steps:

1. Perform 'Login' through student.
2. update the required field.
3. Click on the 'Prediction' button.

Expected Result: Different zones must be displayed .
Actual Result: Accordingly Zones are displayed to the student.

Title: Show Pie-chart – Chances of getting placed is displayed using pie-chart.
Description: Student chances of getting placed must be displayed through a pie-chart option.
Precondition: Perform the Prediction.
Assumption: A supported browser is being used.

Test Steps:

1. Perform 'Login' through student.
2. Update the required field.
3. Click on the 'Prediction' button.
4. Move to 'Pie-chart' option.

Expected Result: Pie-chart must be updated.
Actual Result: Pie-chart is displayed successfully.

Title: Show Bar-graph – Chances of getting placed is displayed using Bar-graph.

Description: Student chances of getting placed must be displayed through a Bar-graph option.

Precondition: Perform the Prediction.

Assumption: A supported browser is being used.

Test Steps:

1. Perform 'Login' through student.
2. update the required field.
3. Click on the 'Prediction' button.
4. Move to 'Bar-graph' option.

Expected Result: Bar-graph must be updated.

Actual Result: Bar-graph is displayed successfully.

Chapter 8

Screenshots of Project

Figure 8.1: Index page

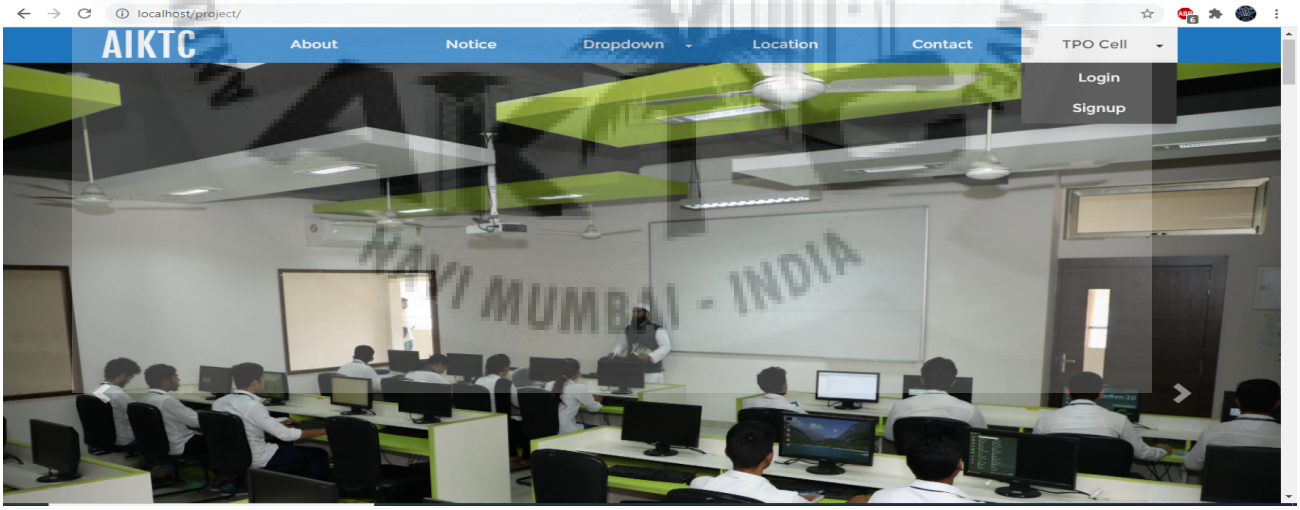

Figure 8.2: TPC cell

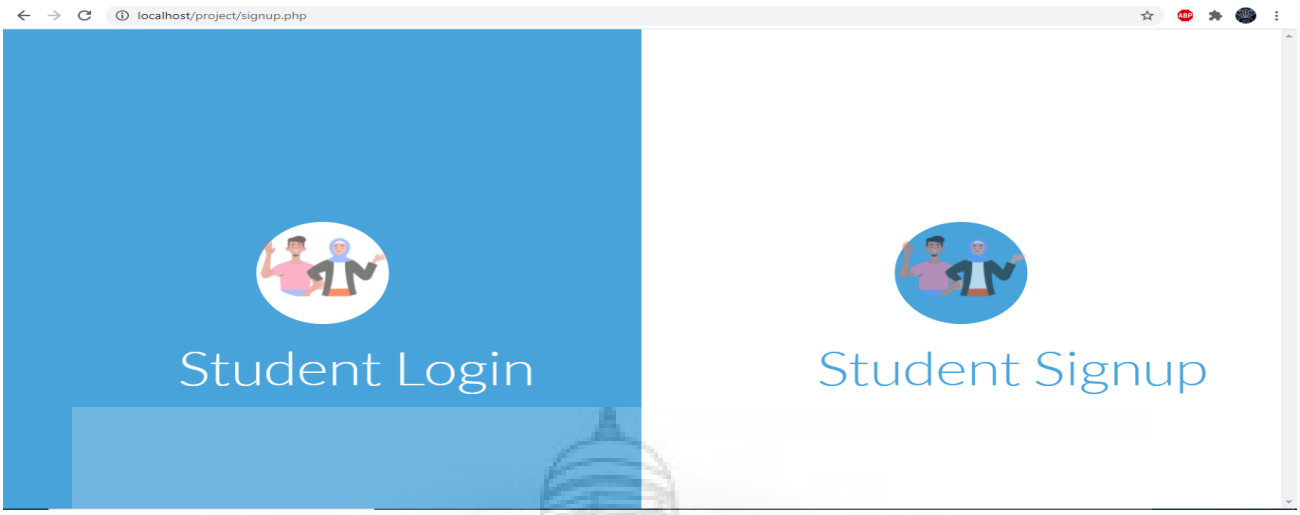

Figure 8.3: Student Signup page

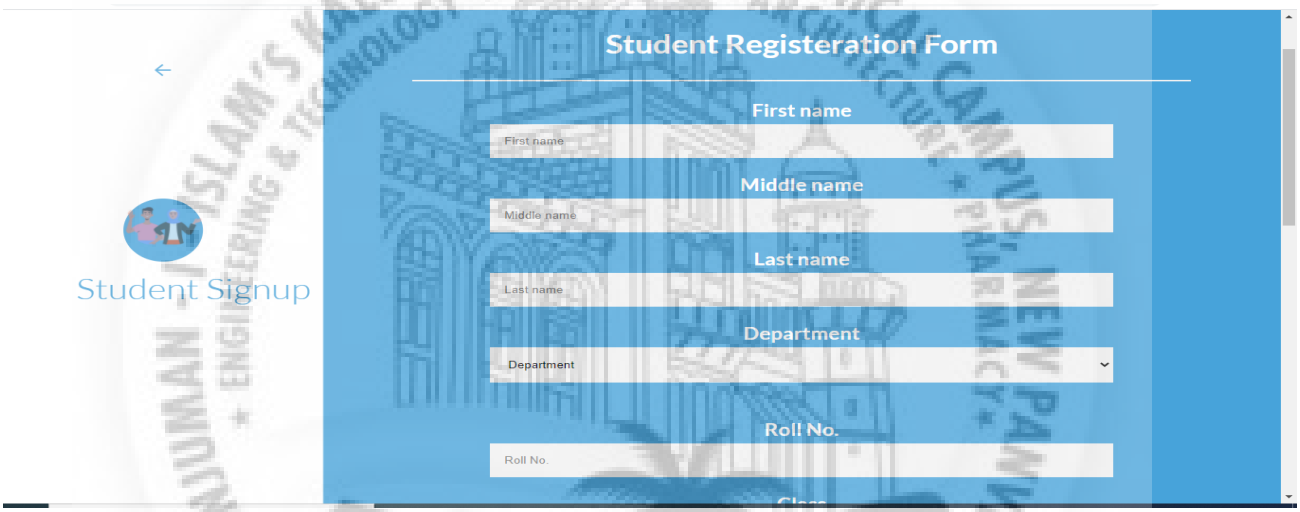

Figure 8.4: Student Registration

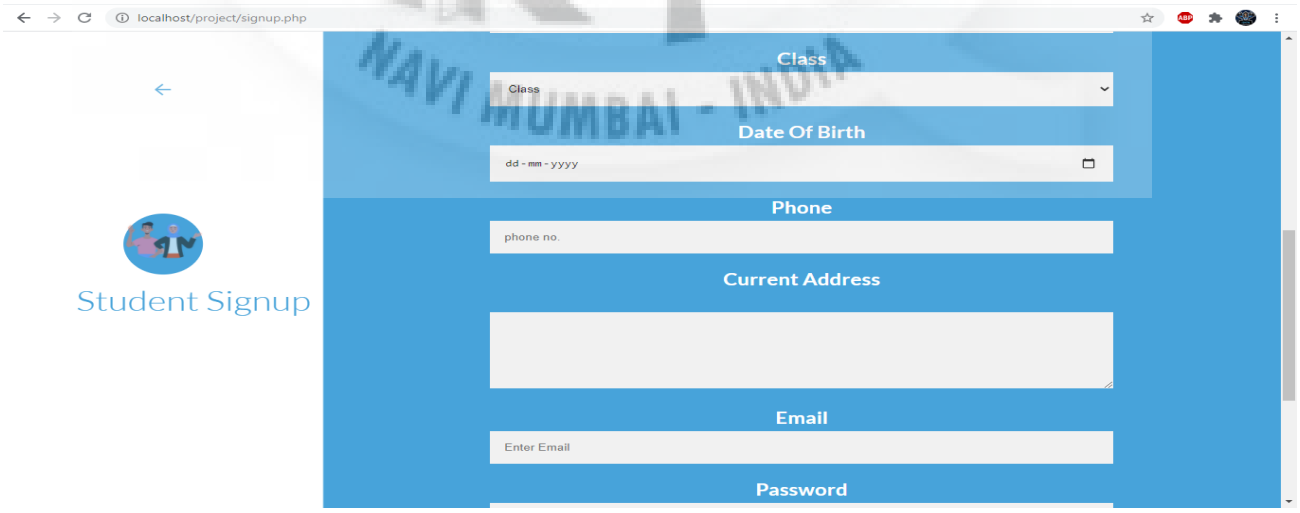

Figure 8.5: Student Registration

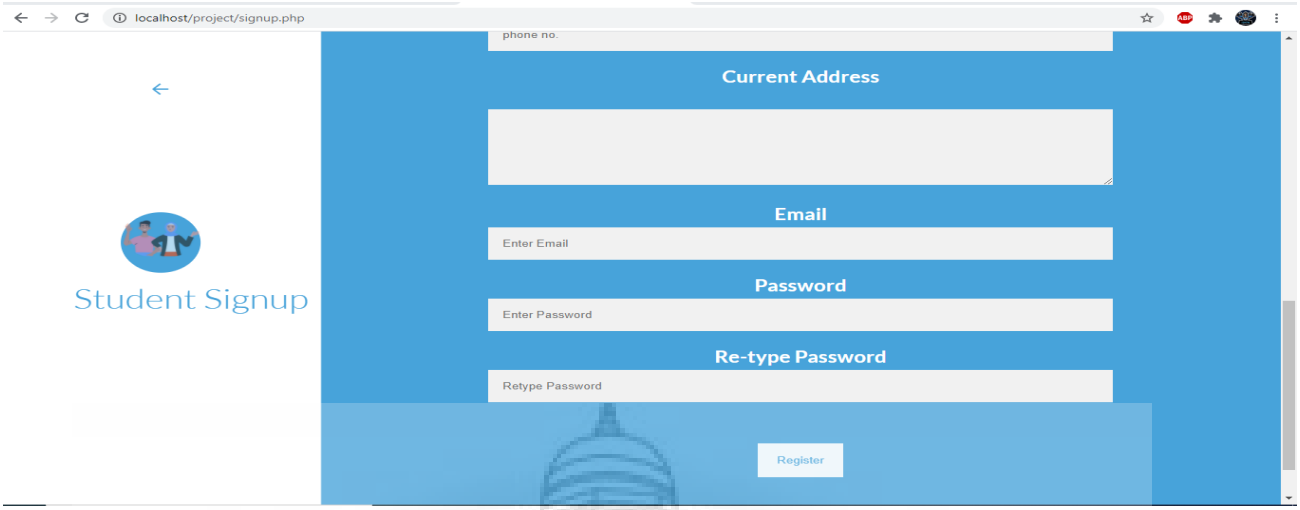

Figure 8.6: Student Registration

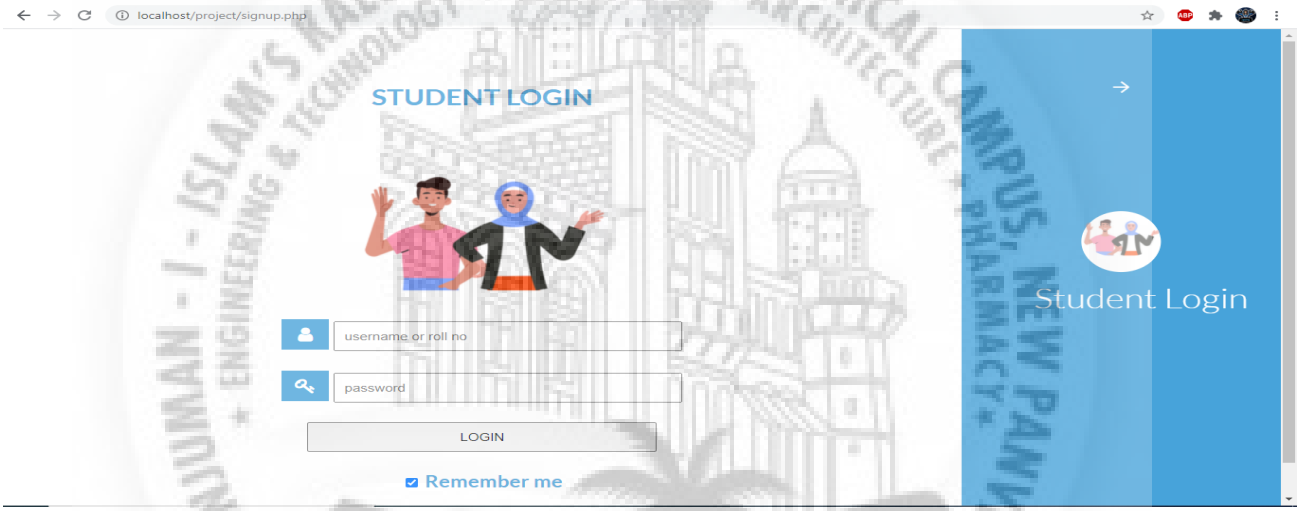

Figure 8.7: Student Signup/Login

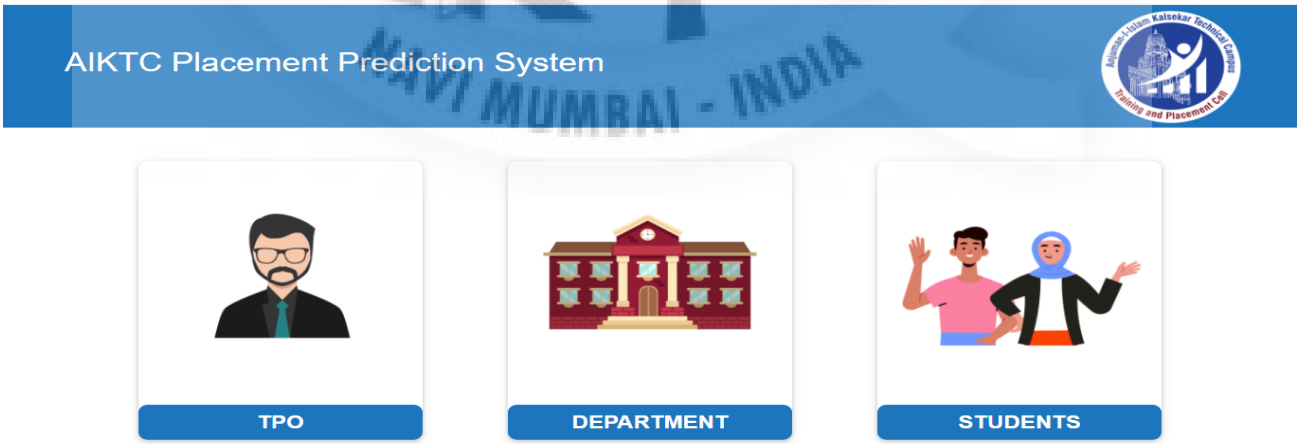

Figure 8.8: Login Page

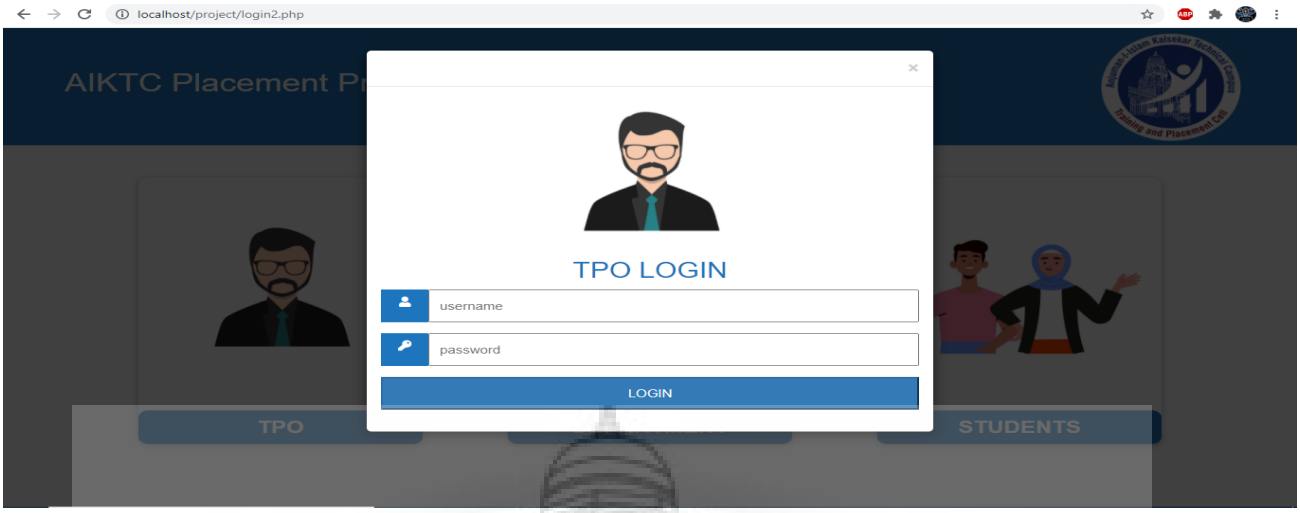

Figure 8.9: TPC login

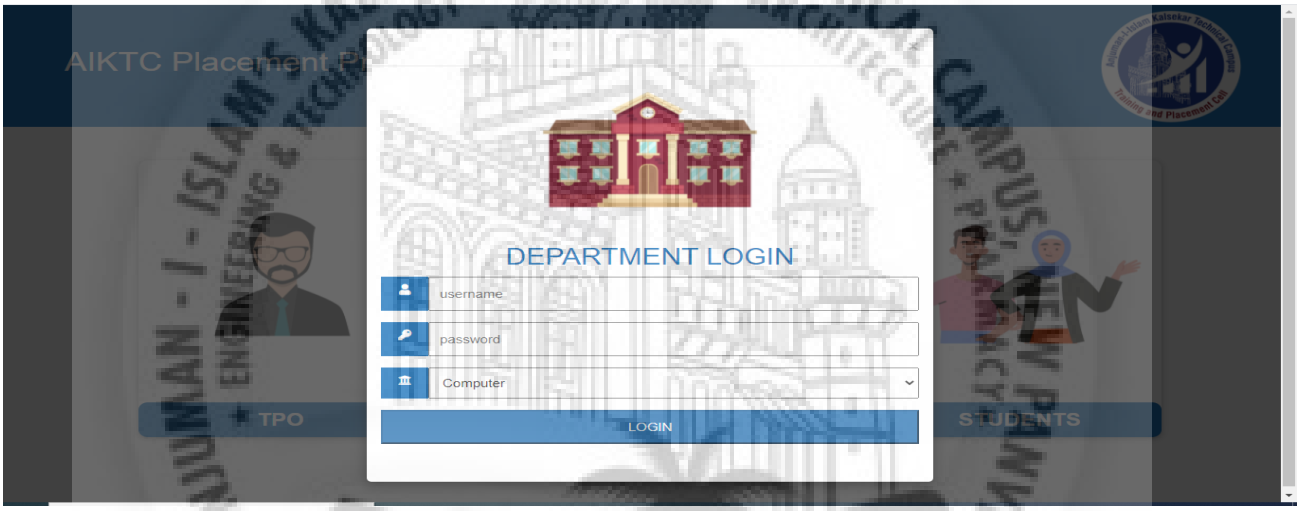

Figure 8.10: Department Login

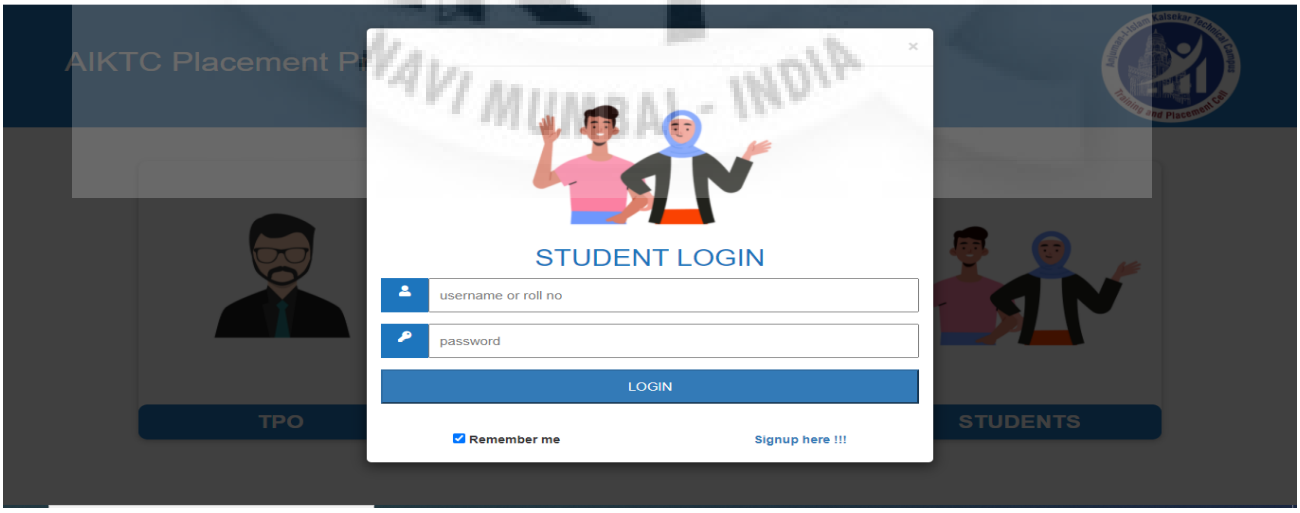

Figure 8.11: Student Login

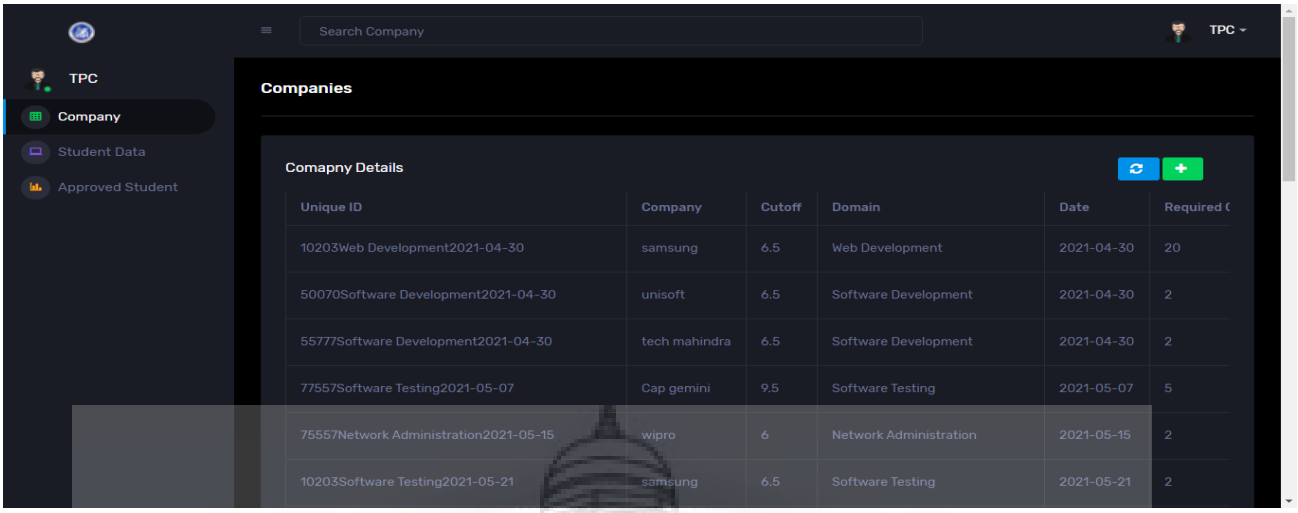

Figure 8.12: List of Company

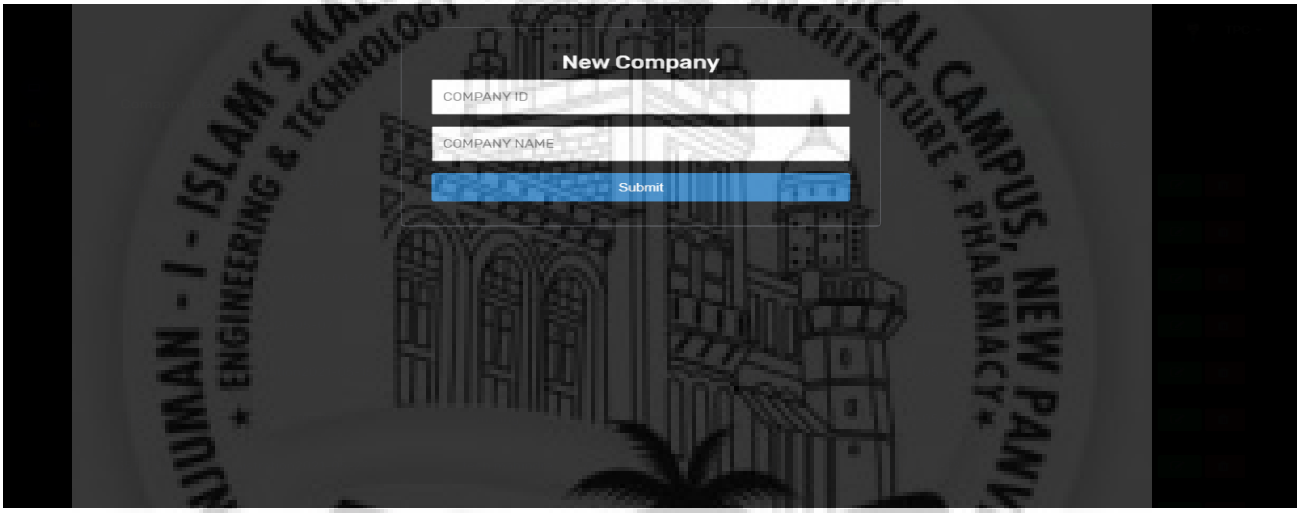

Figure 8.13: Add Company

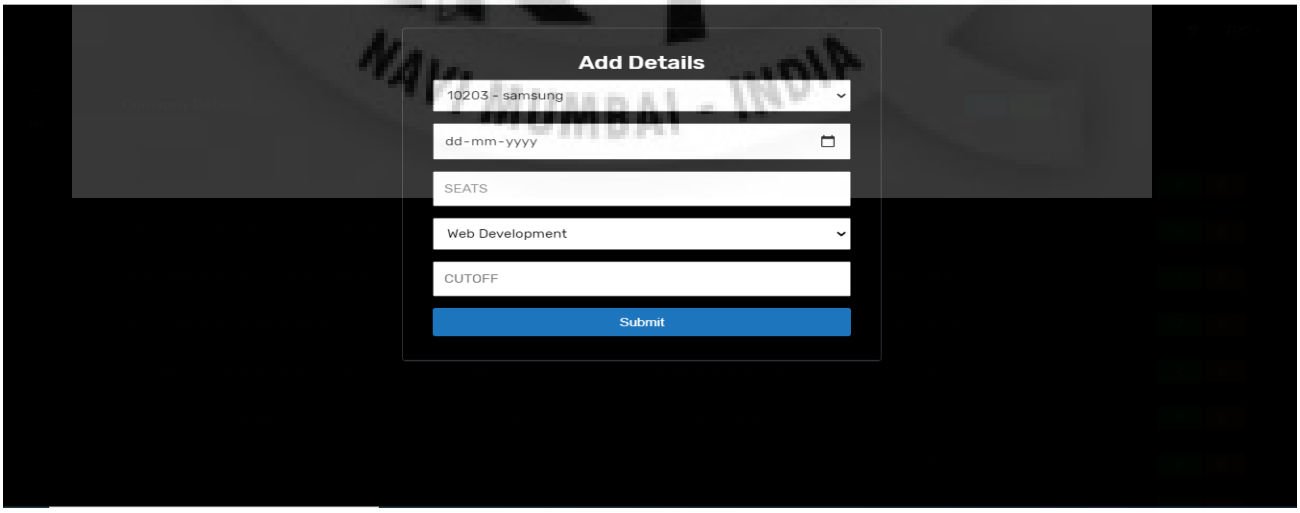

Figure 8.14: Add Job

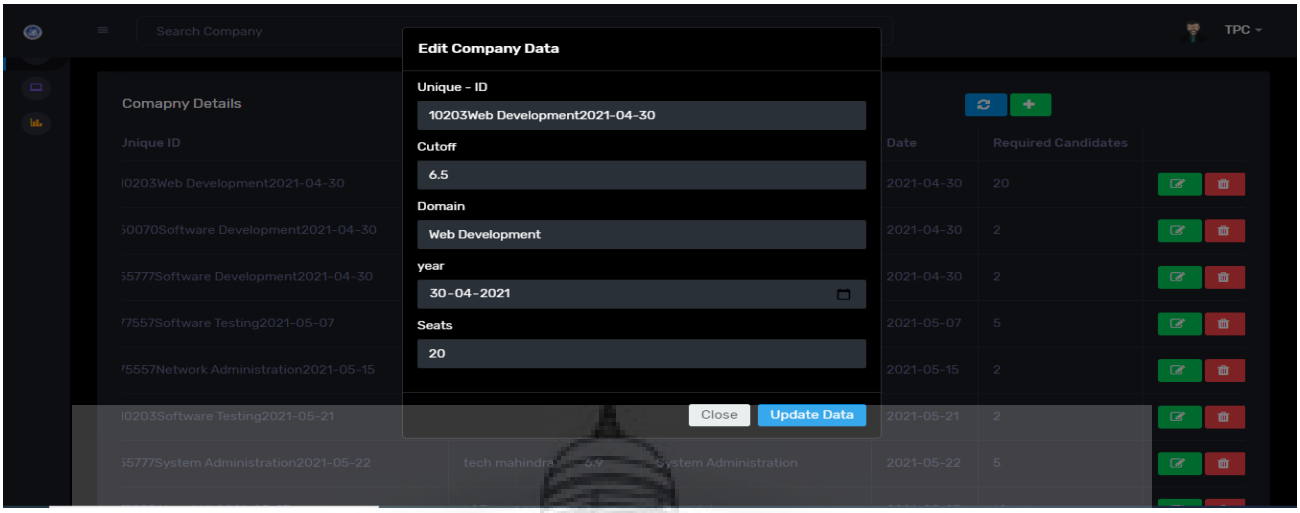

Figure 8.15: Update Company

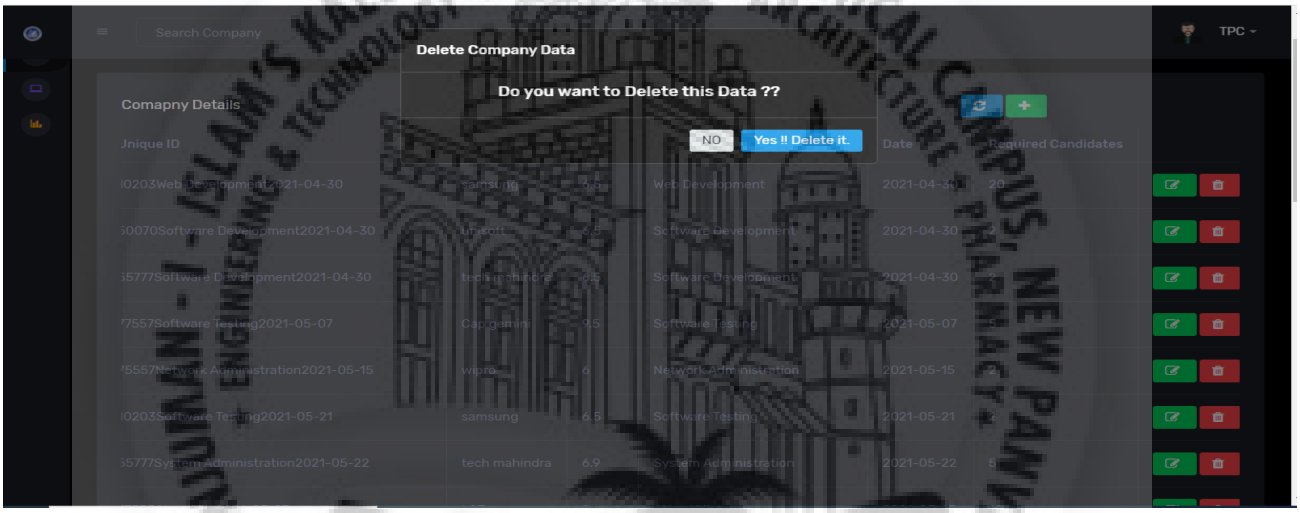

Figure 8.16: Remove Company

Figure 8.17: View Student Profile

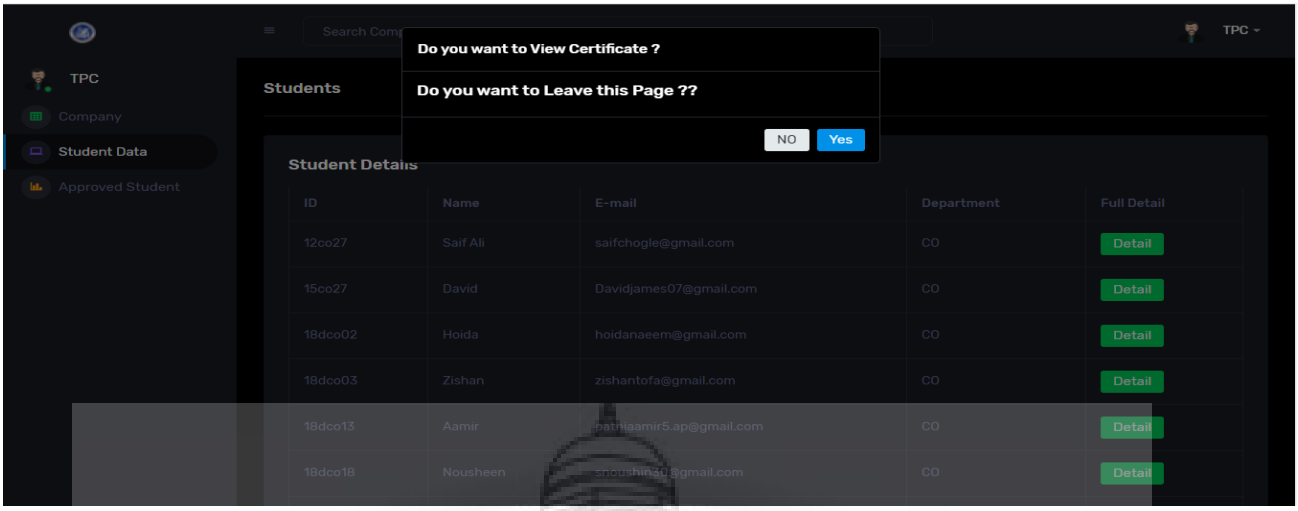

Figure 8.18: Confirmation to View Profile

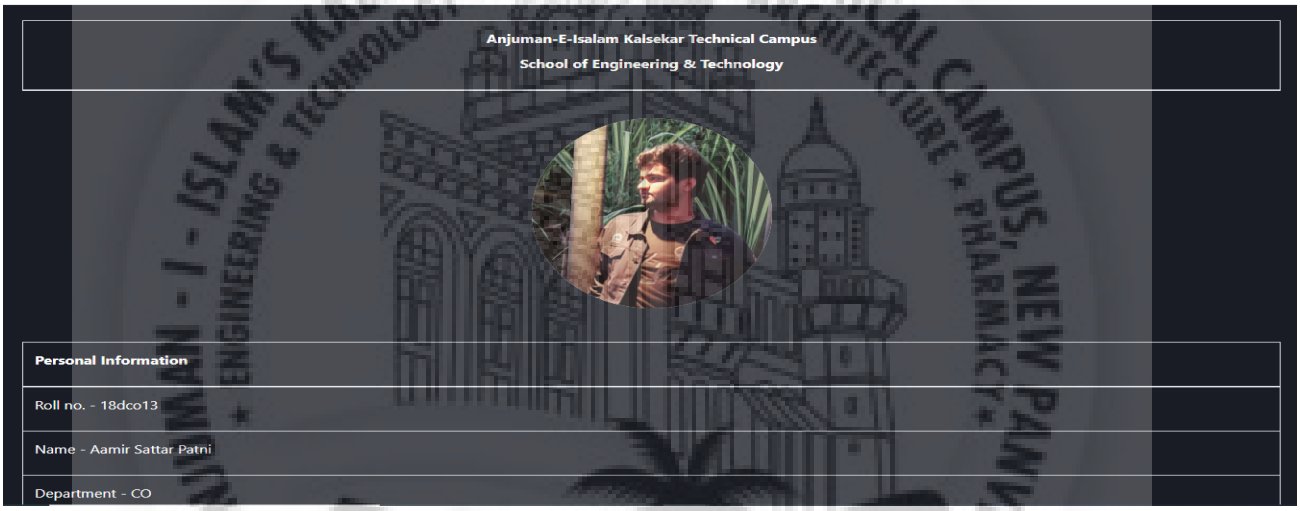

Figure 8.19: Student Profile

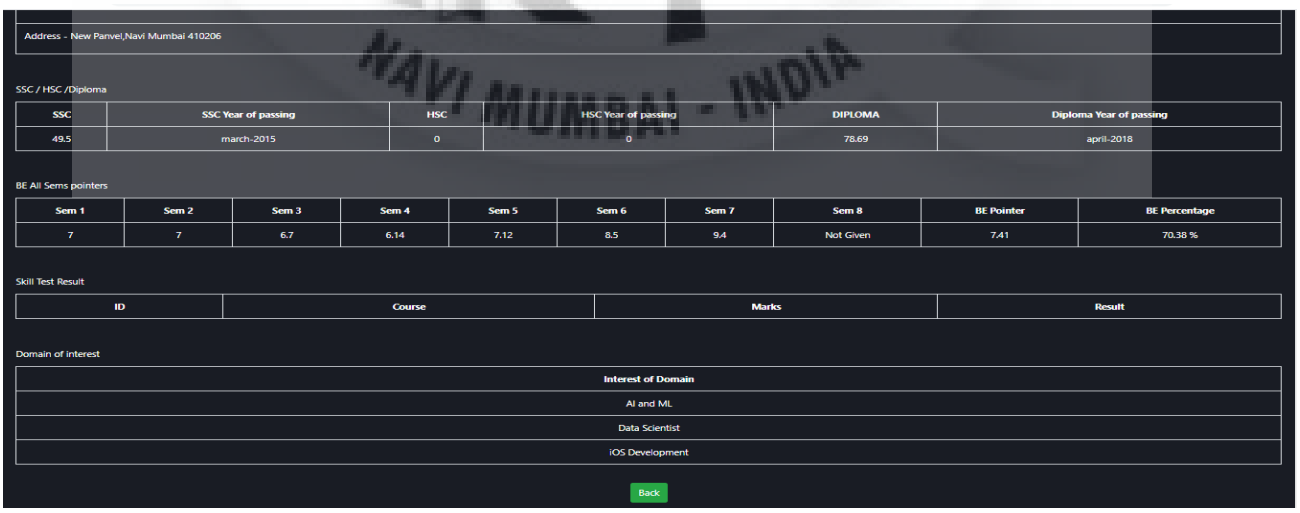

Figure 8.20: Student Profile

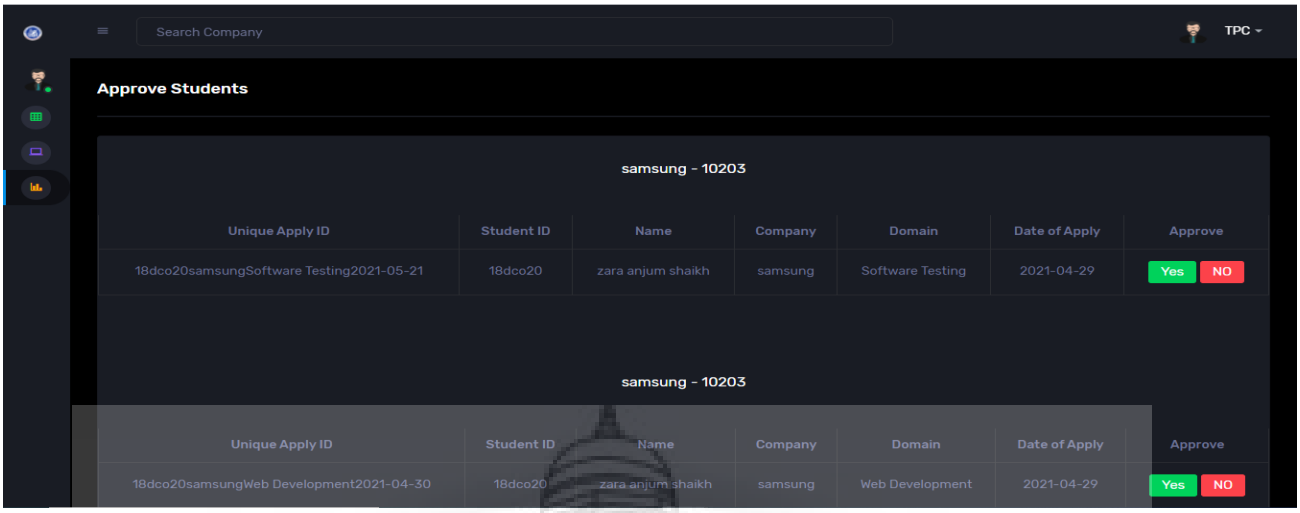

Figure 8.21: Job Approval

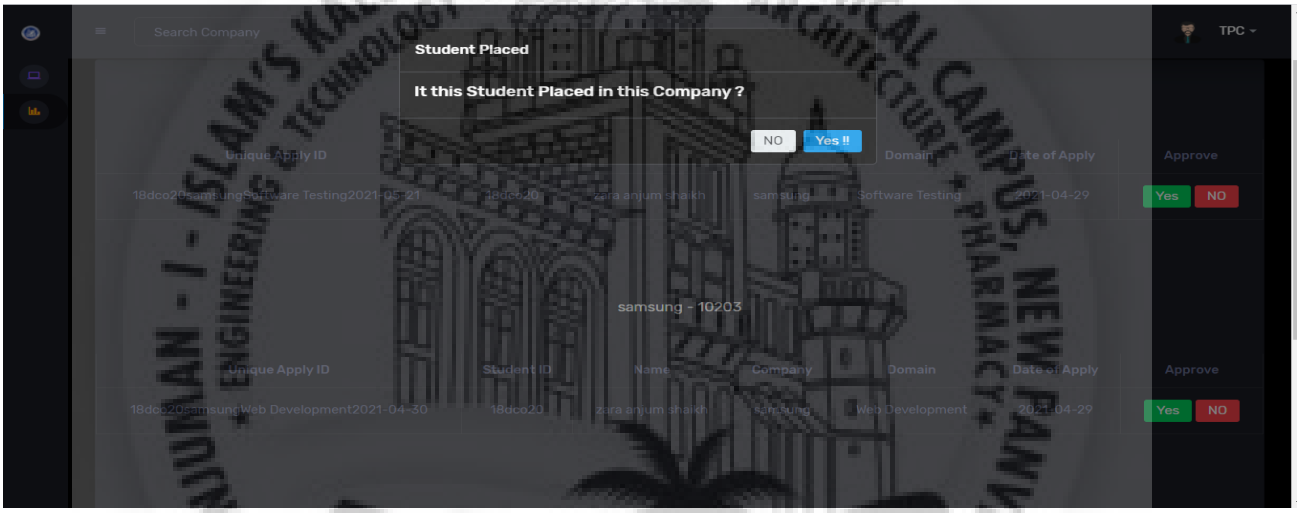

Figure 8.22: Approval-Yes

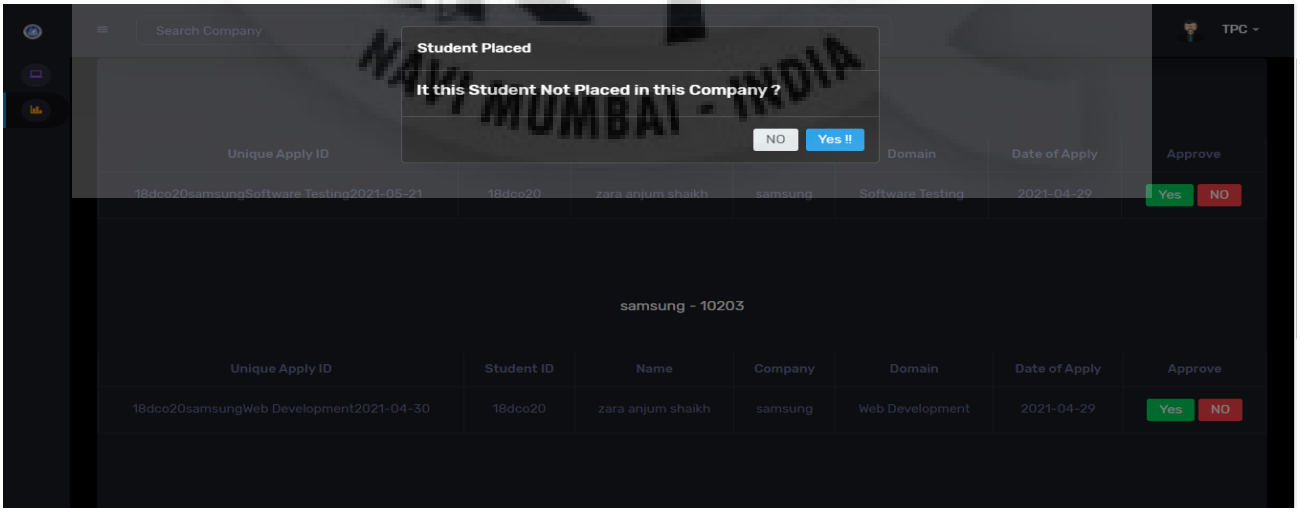

Figure 8.23: Approval-No

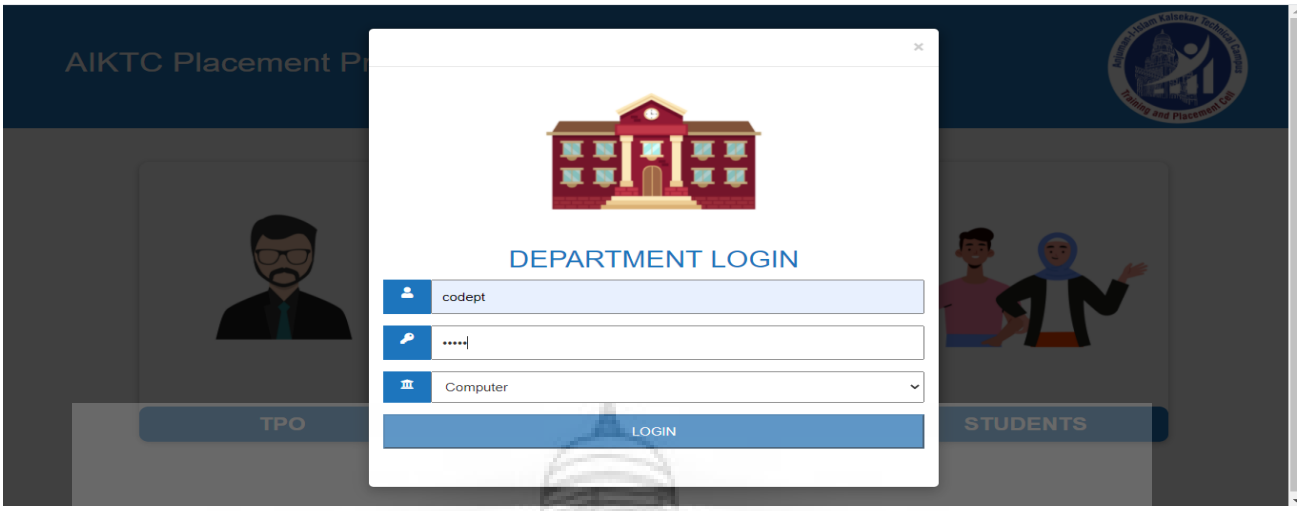

Figure 8.24: Department Login

Figure 8.25: View Student Profile

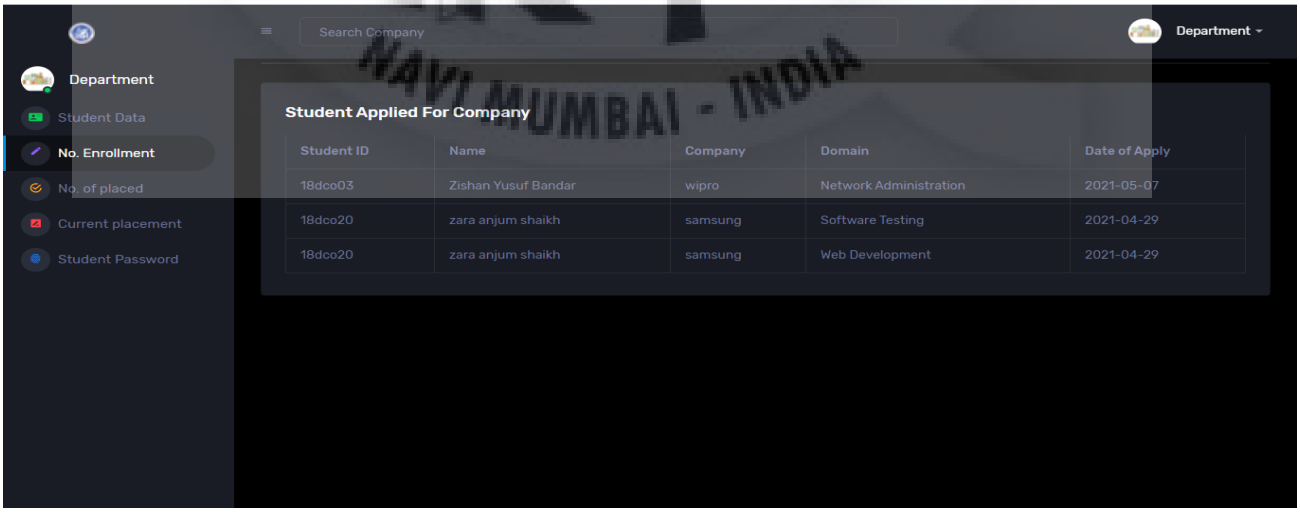

Figure 8.26: No of Enrolled Students

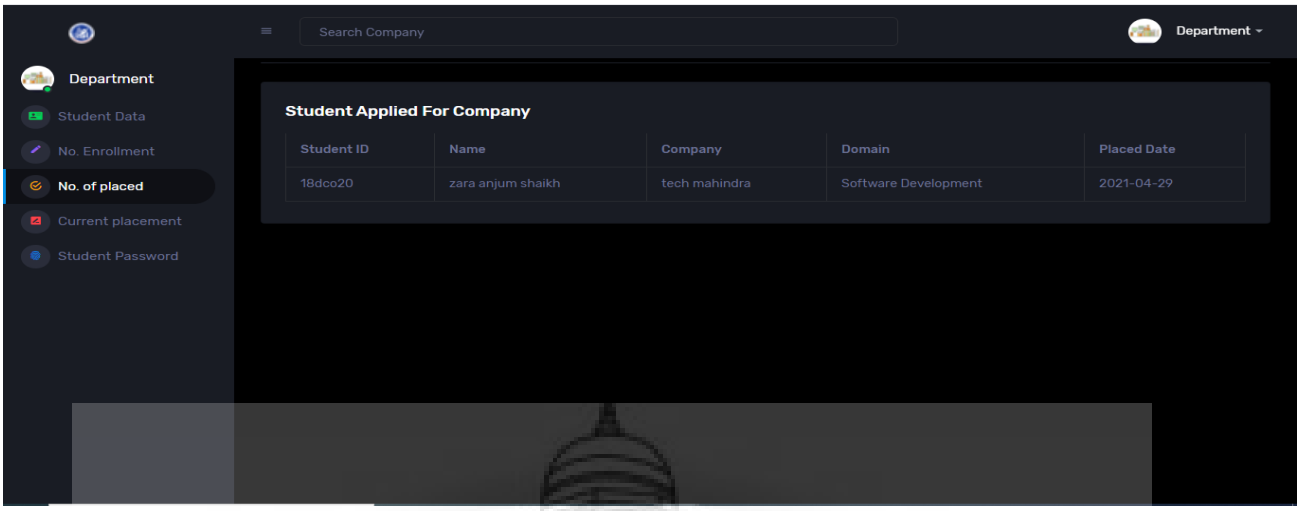

Figure 8.27: No of Placed Students

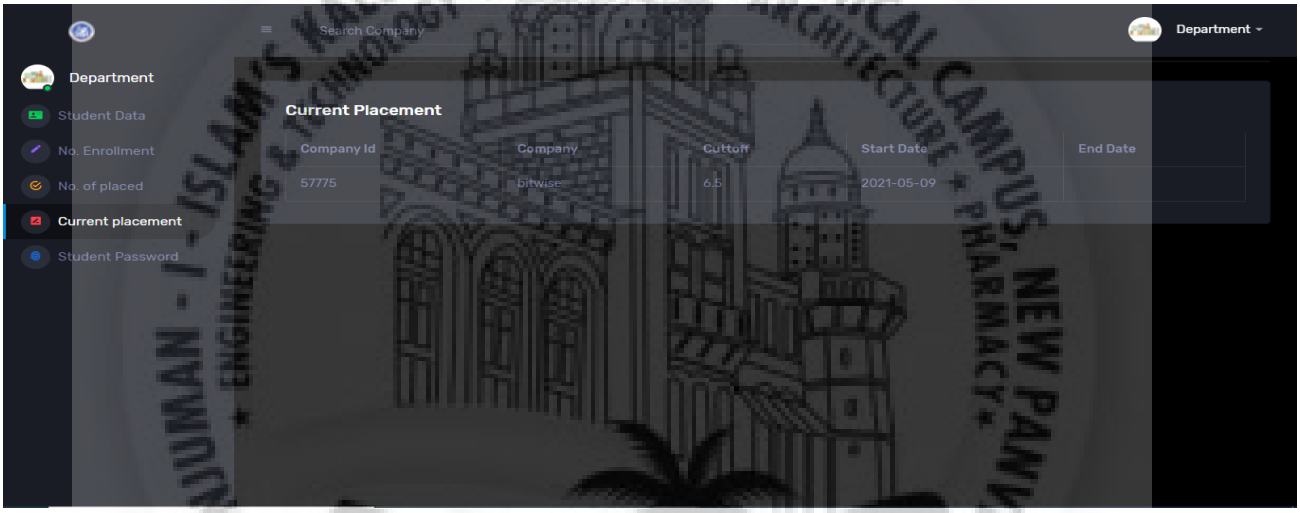

Figure 8.28: Current Placement

Figure 8.29: Change Student Password

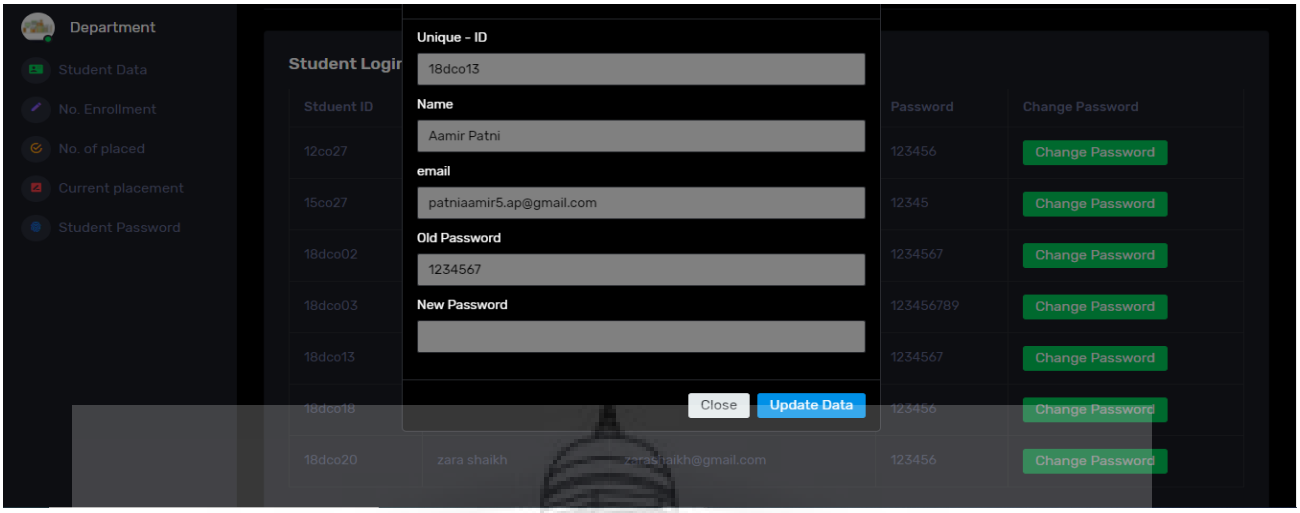

Figure 8.30: Change Password Modal

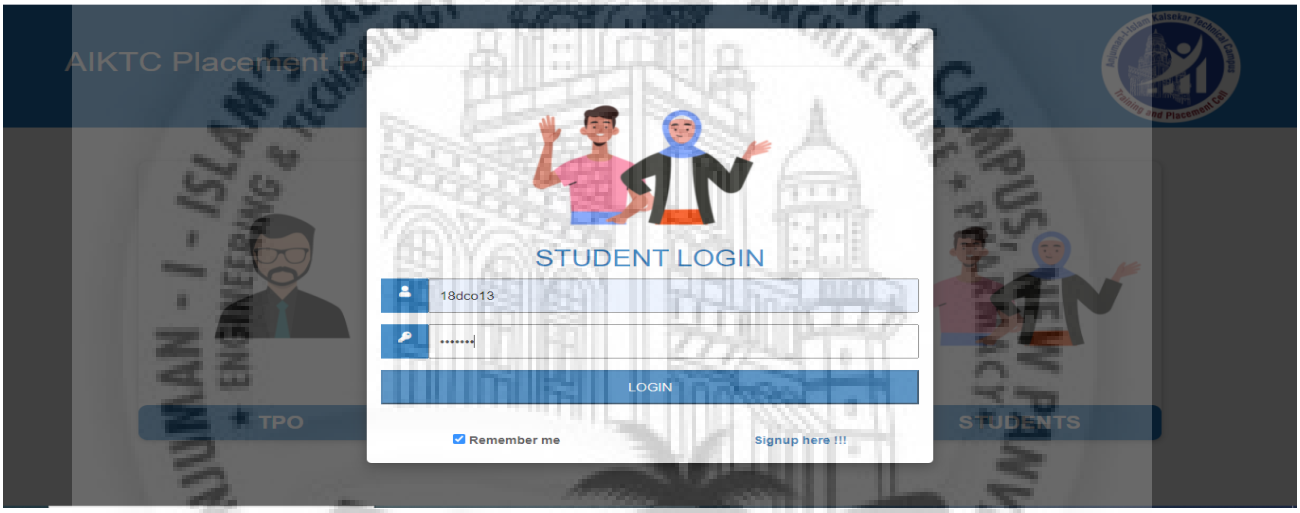

Figure 8.31: Student Login

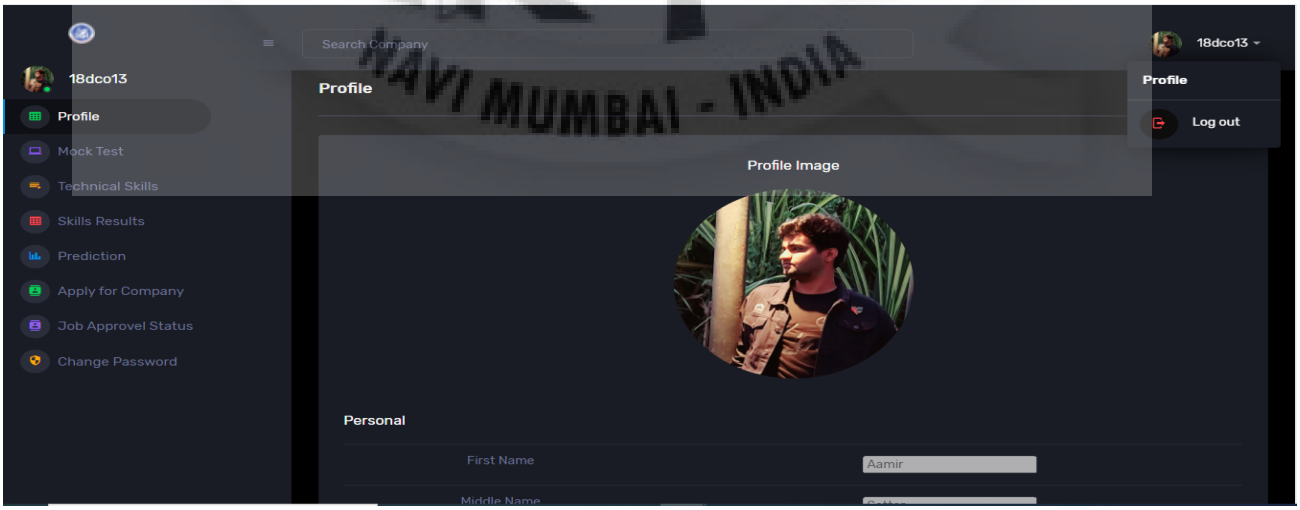

Figure 8.32: Student Profile

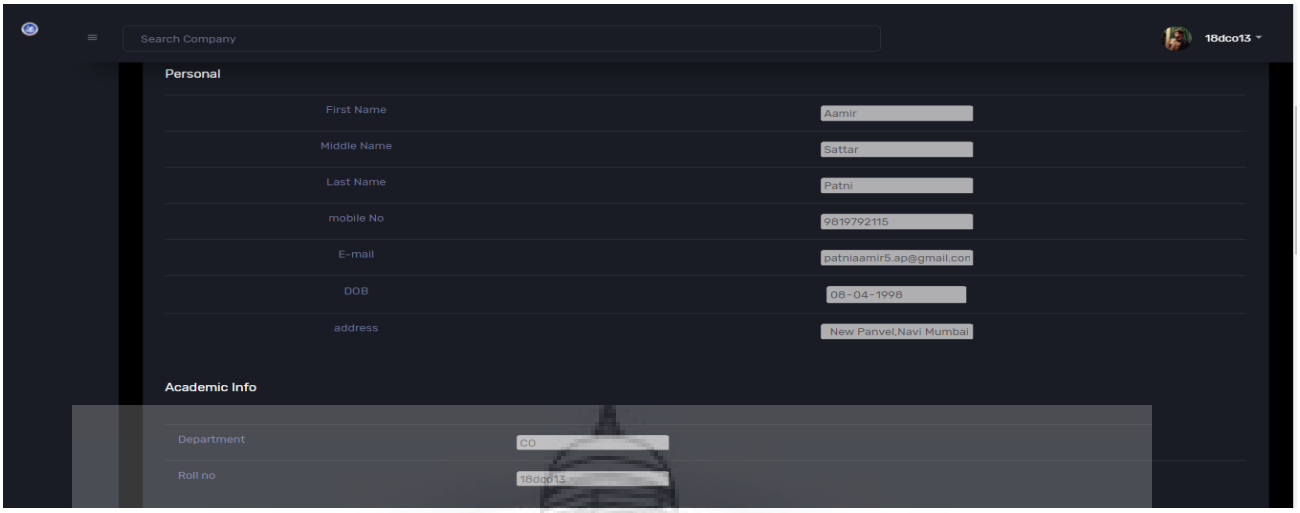

Figure 8.33: Student Info

Figure 8.34: Student Marks/Add Certificate

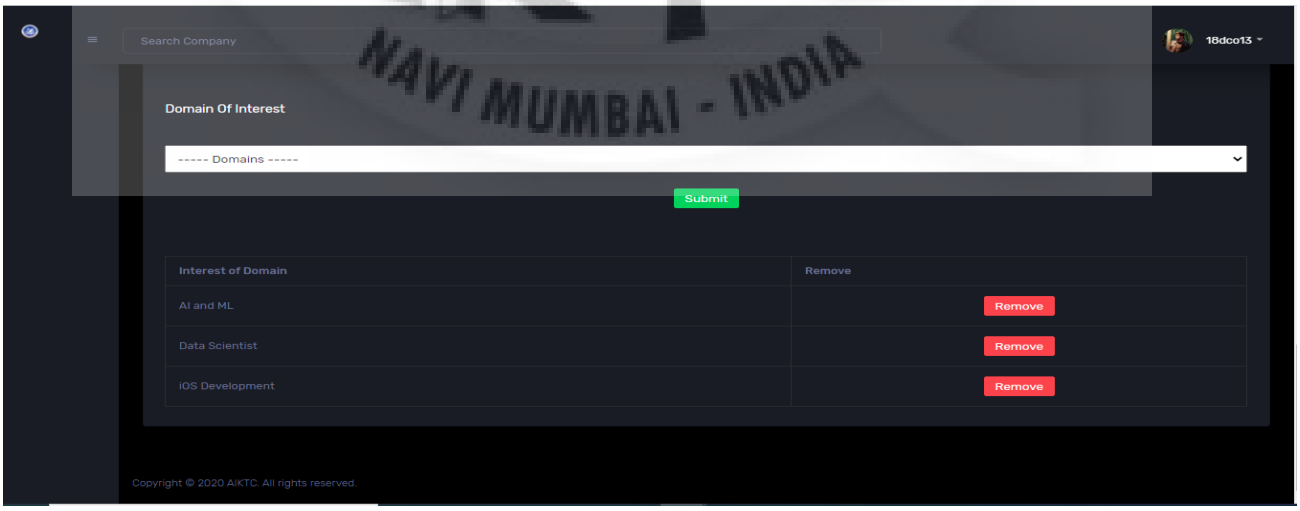

Figure 8.35: Domain of Interest

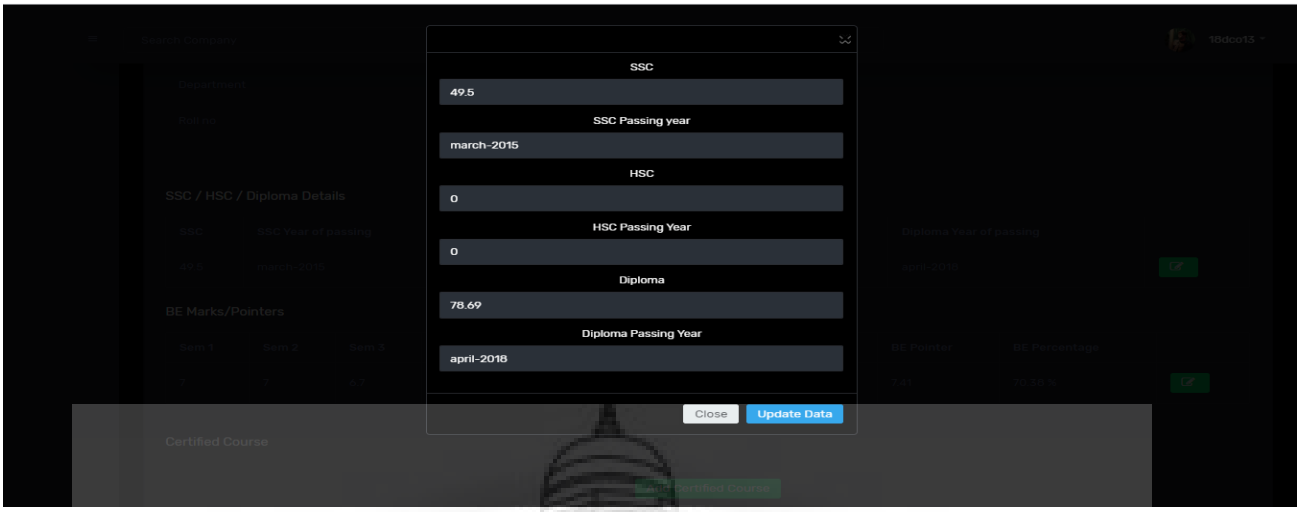

Figure 8.36: Update Student Marks

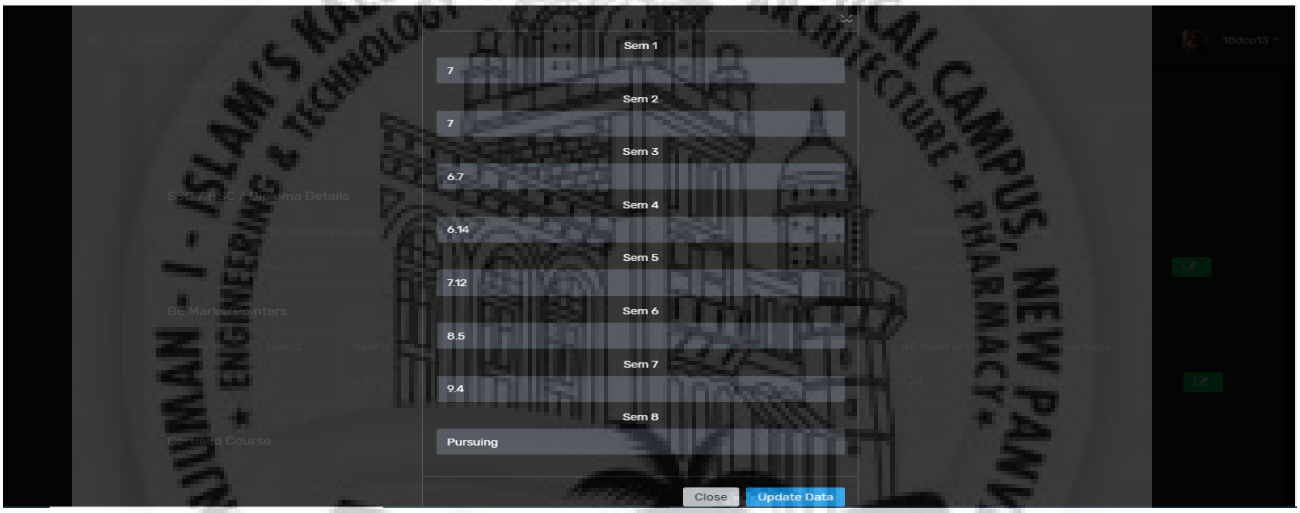

Figure 8.37: Update Student B.E Pointers

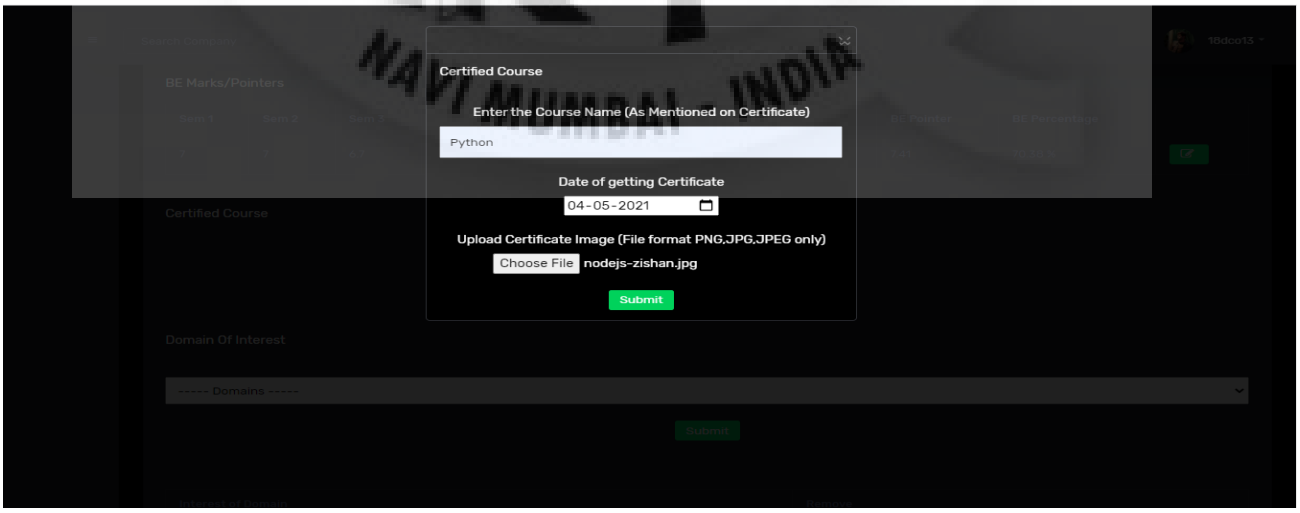

Figure 8.38: Add Certified Courses

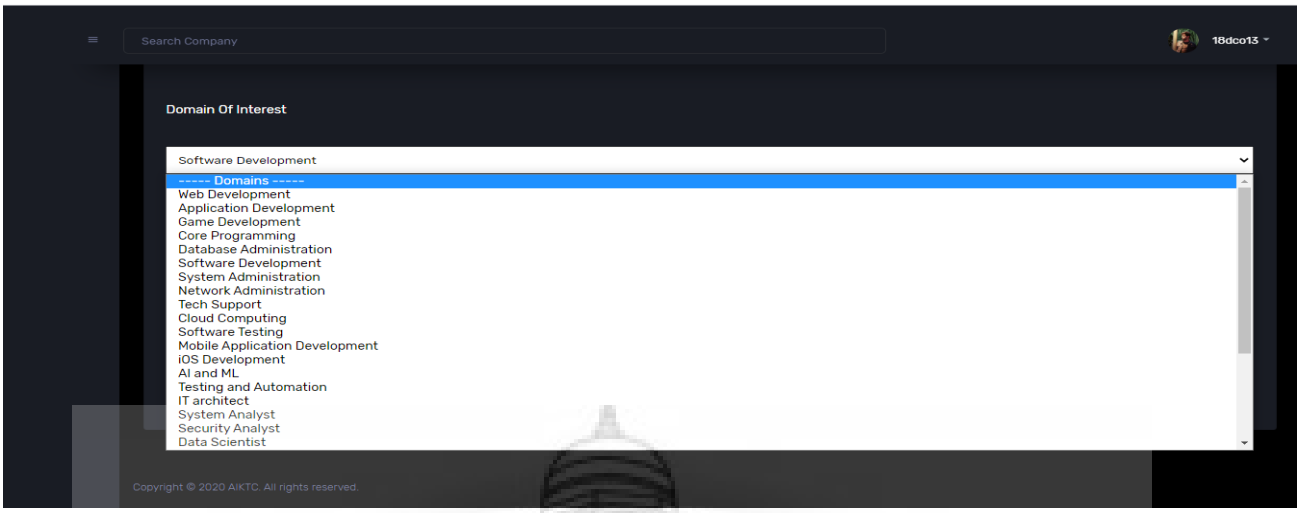

Figure 8.39: Add Domain of Interest

Figure 8.40: Mock Test Option

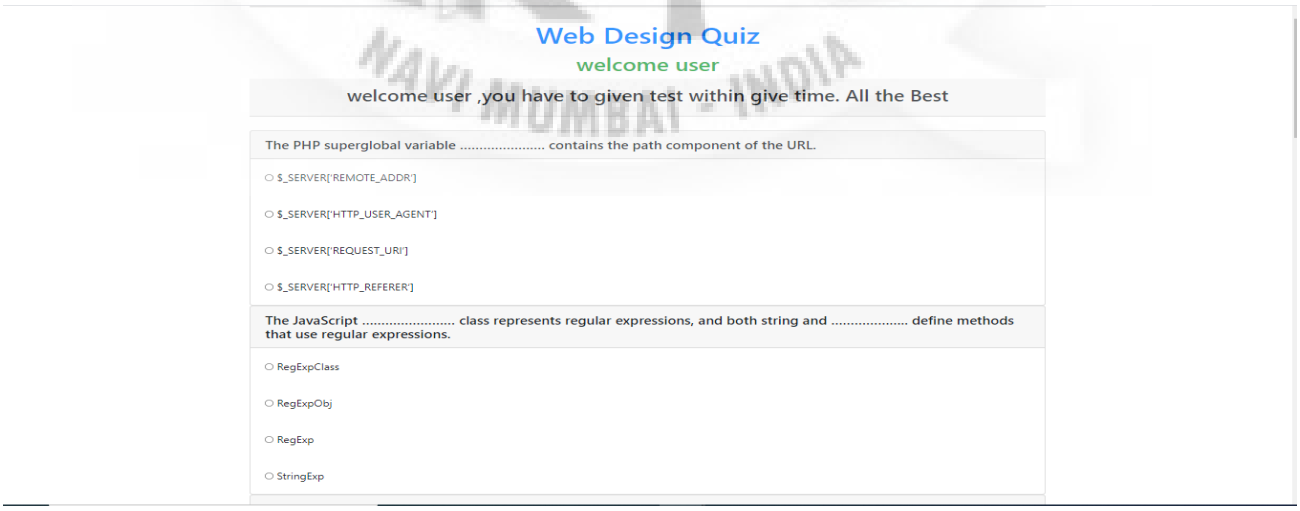

Figure 8.41: Mock Test

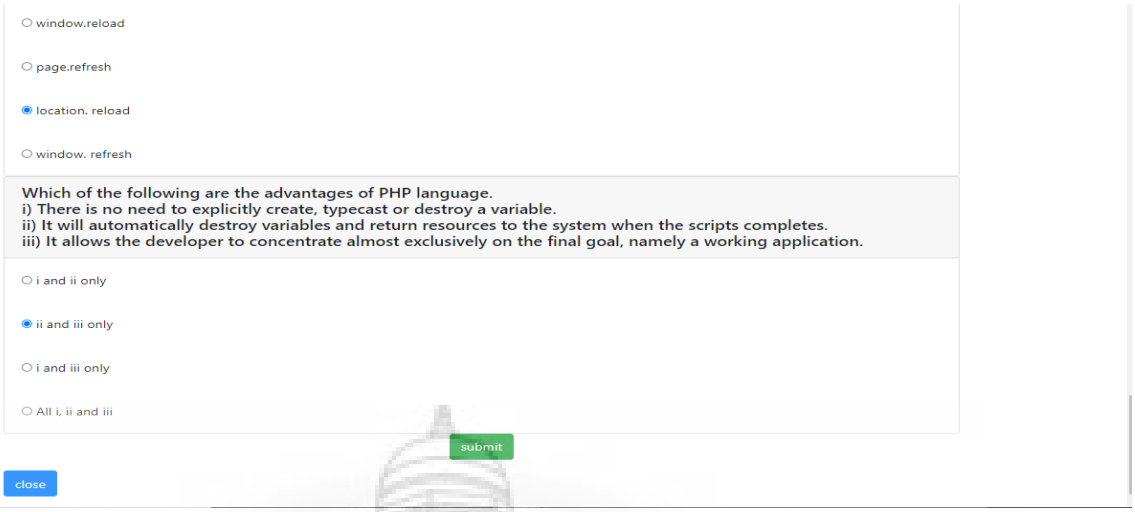

Figure 8.42: Mock Test

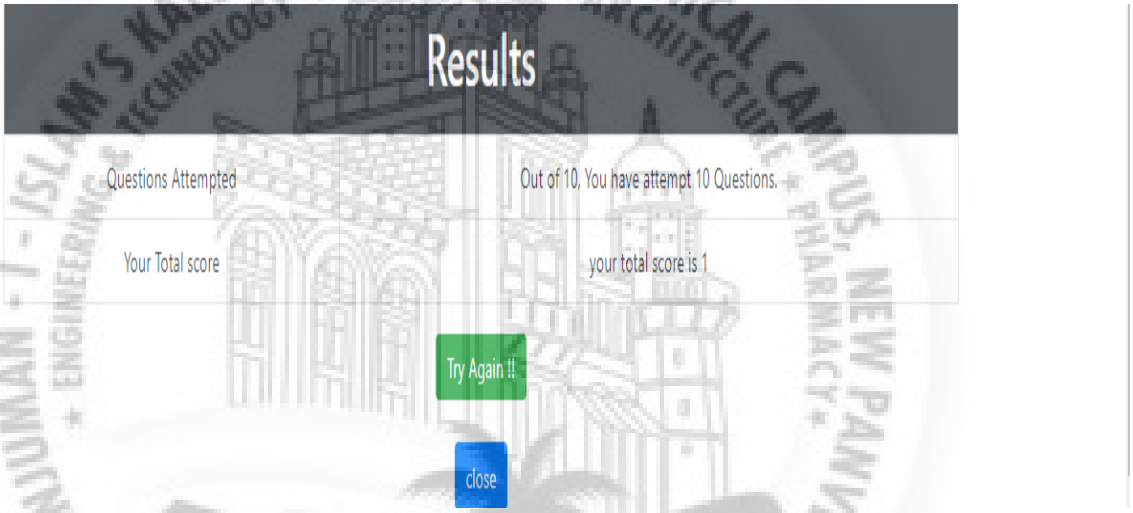

Figure 8.43: Mock Test Result

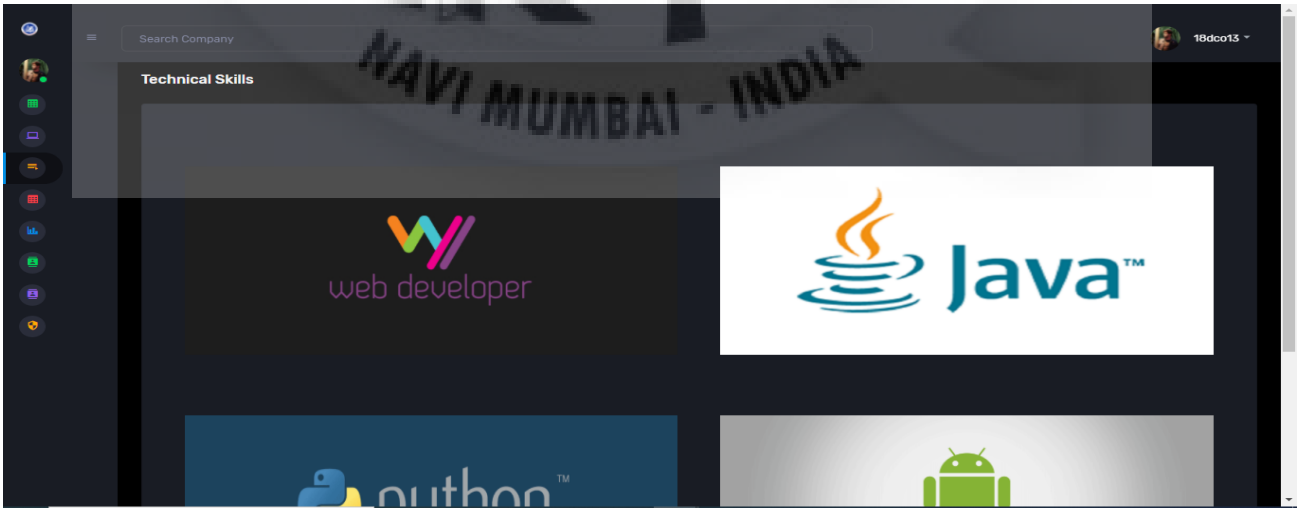

Figure 8.44: Technical Skill Test

Figure 8.45: Skill Test Start Quiz

Figure 8.46: Technical Skill Questionnaire

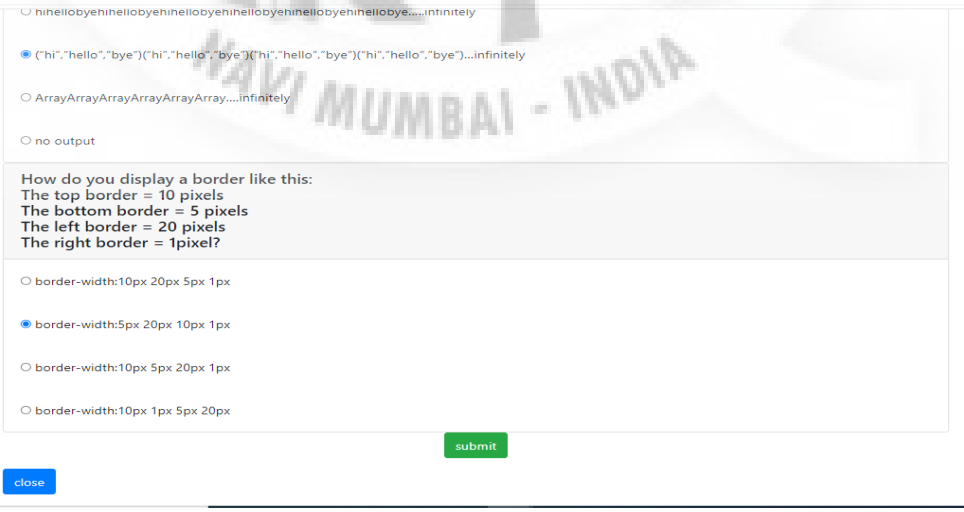

Figure 8.47: Technical Skill Questionnaire

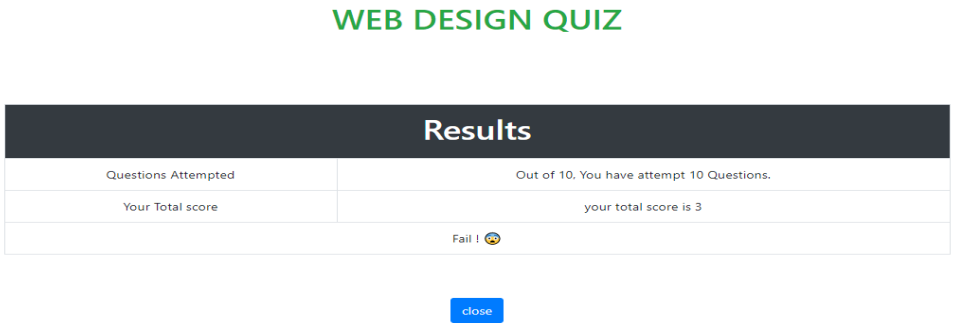

Figure 8.48: Technical Skill Result

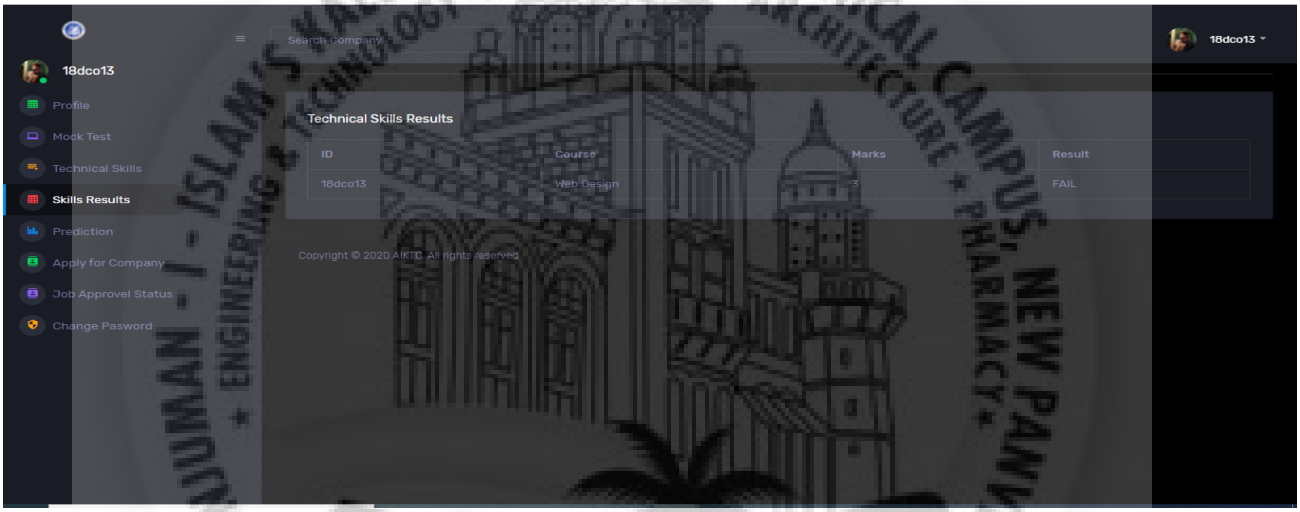

Figure 8.49: All Technical Skill Results

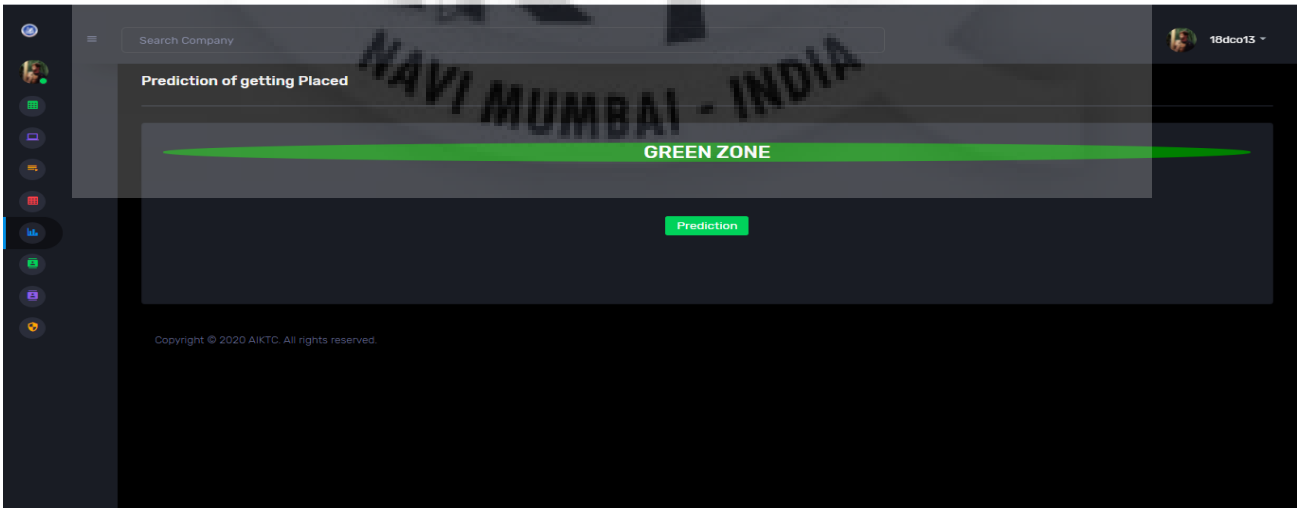

Figure 8.50: Prediction Zone

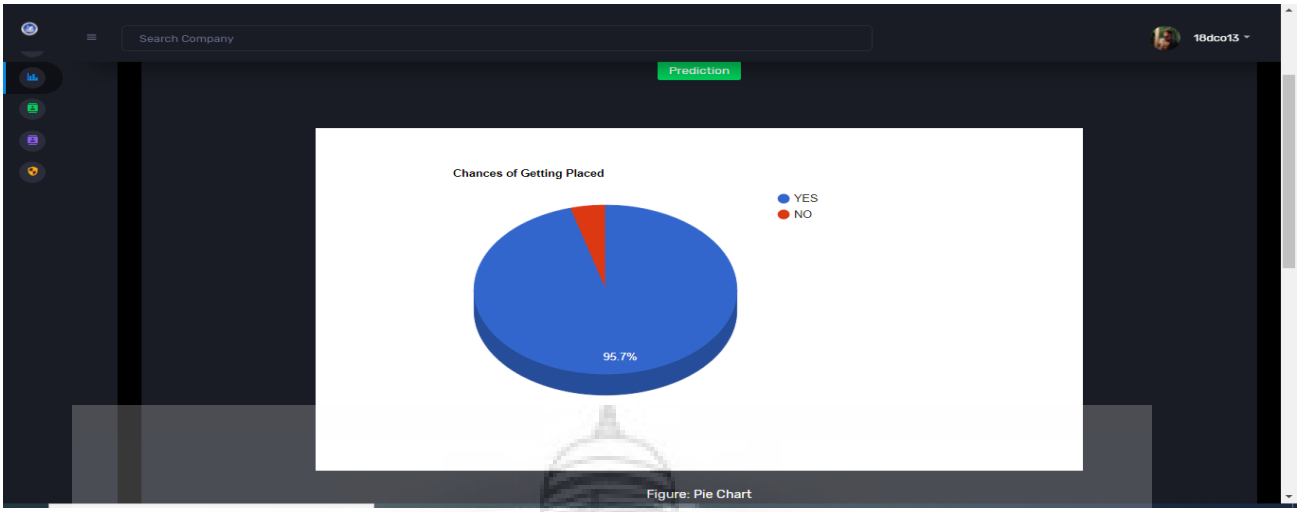

Figure 8.51: Prediction Result in Pie Chart

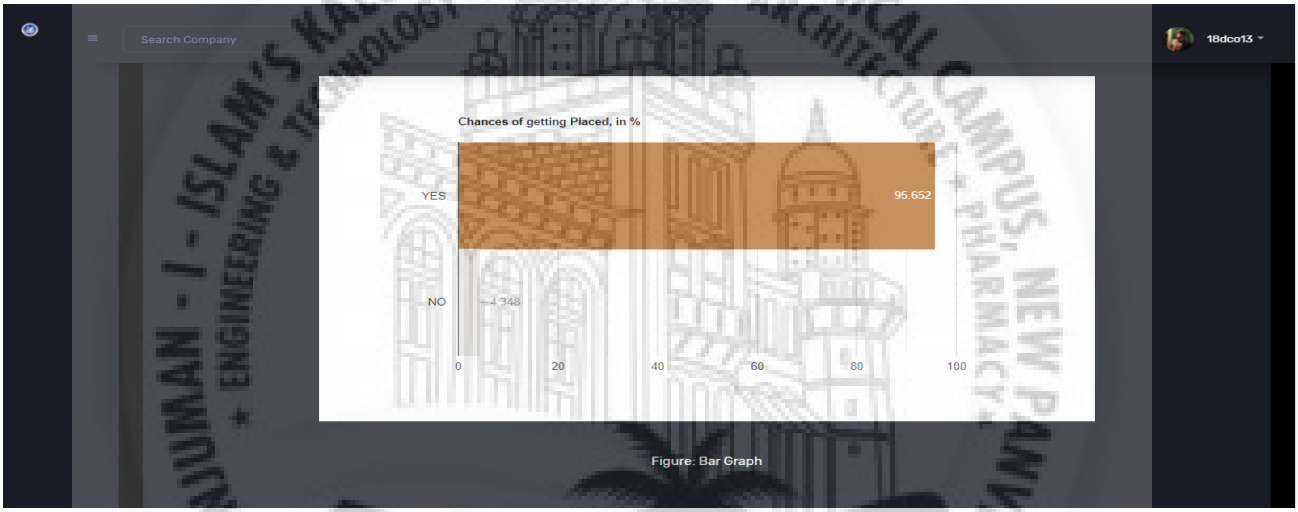

Figure 8.52: Prediction Result in Bar Graph

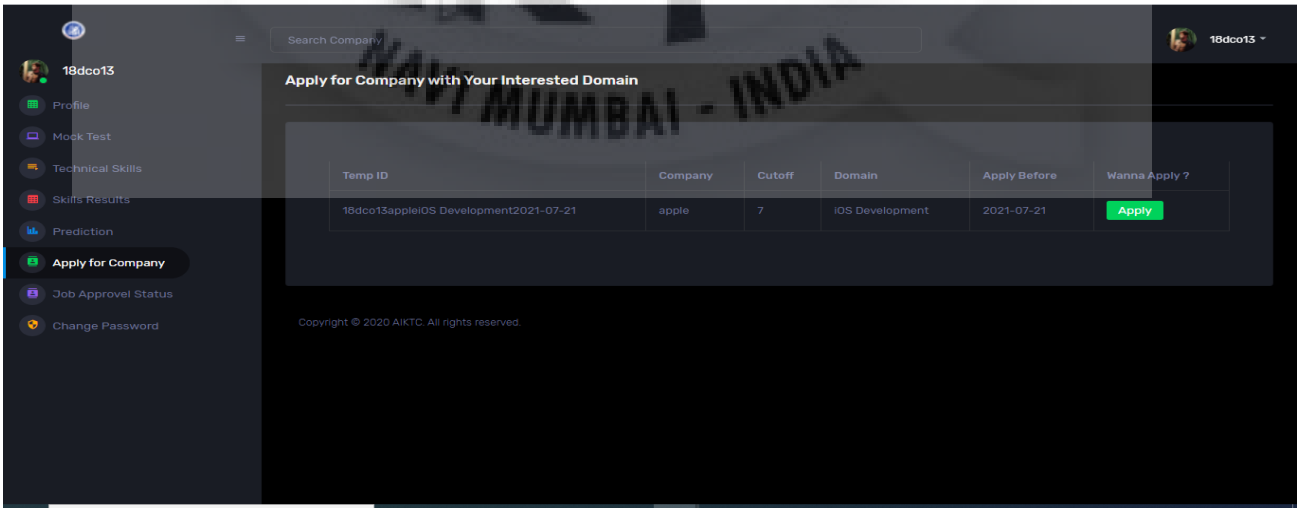

Figure 8.53: Apply for Company

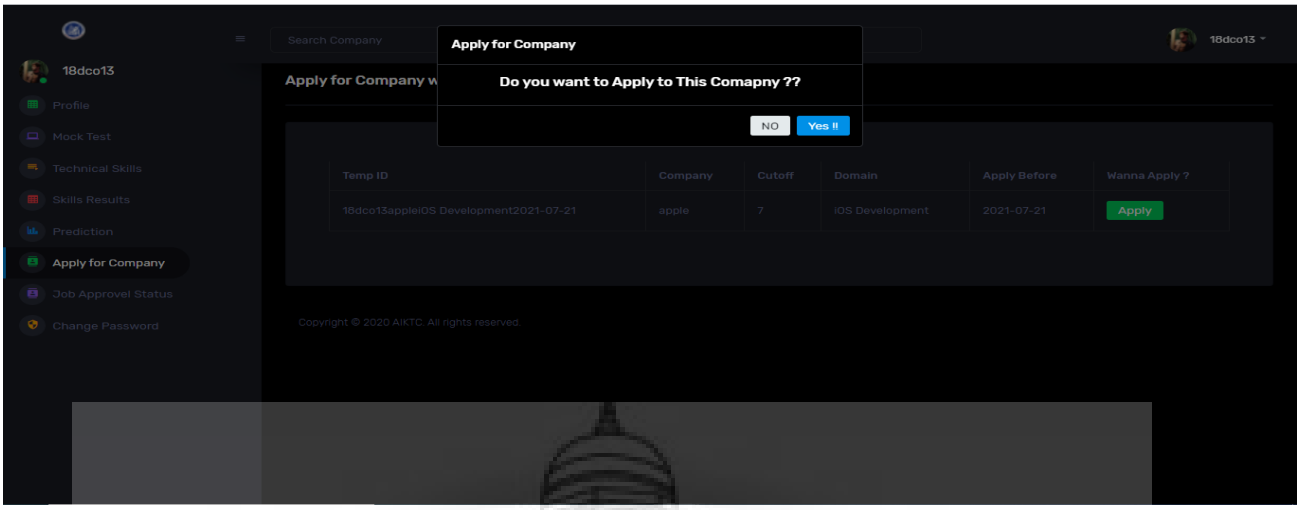

Figure 8.54: Confirmation For Applying

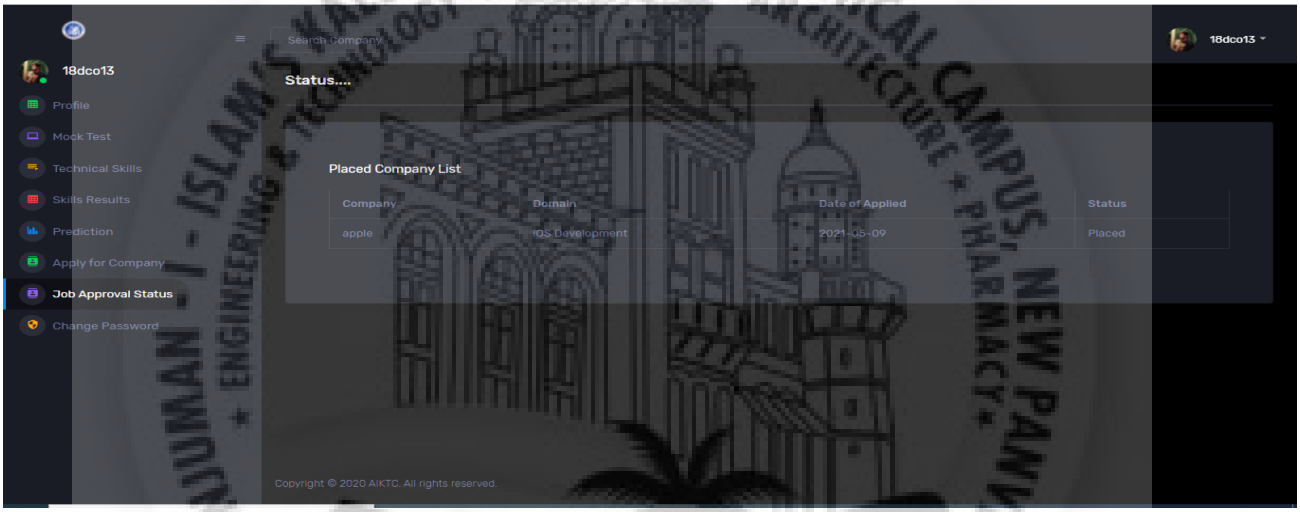

Figure 8.55: Job Status

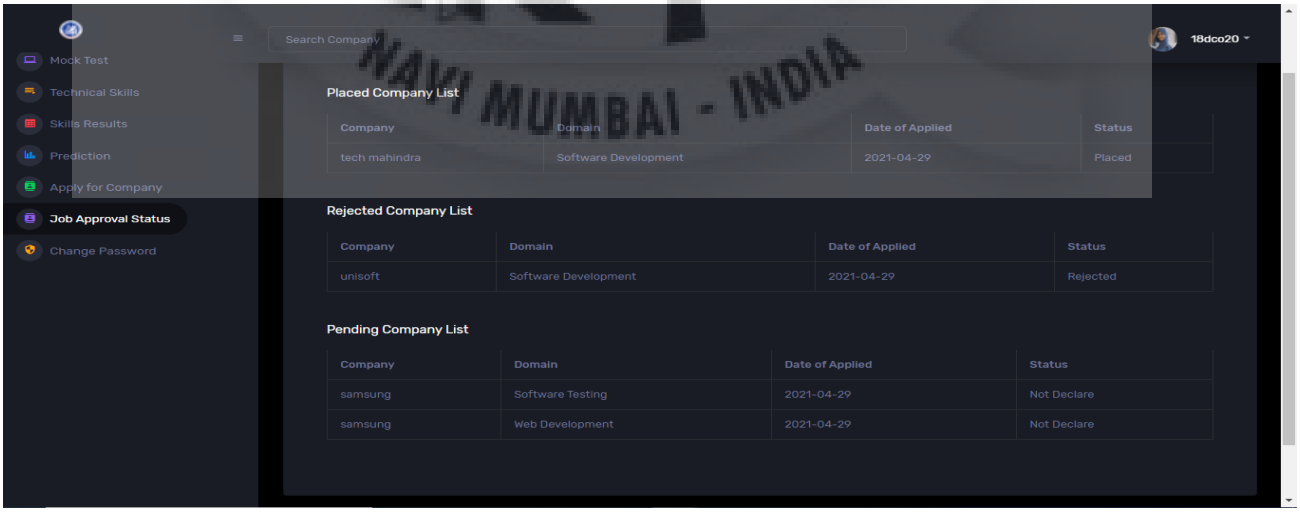

Figure 8.56: Job Status

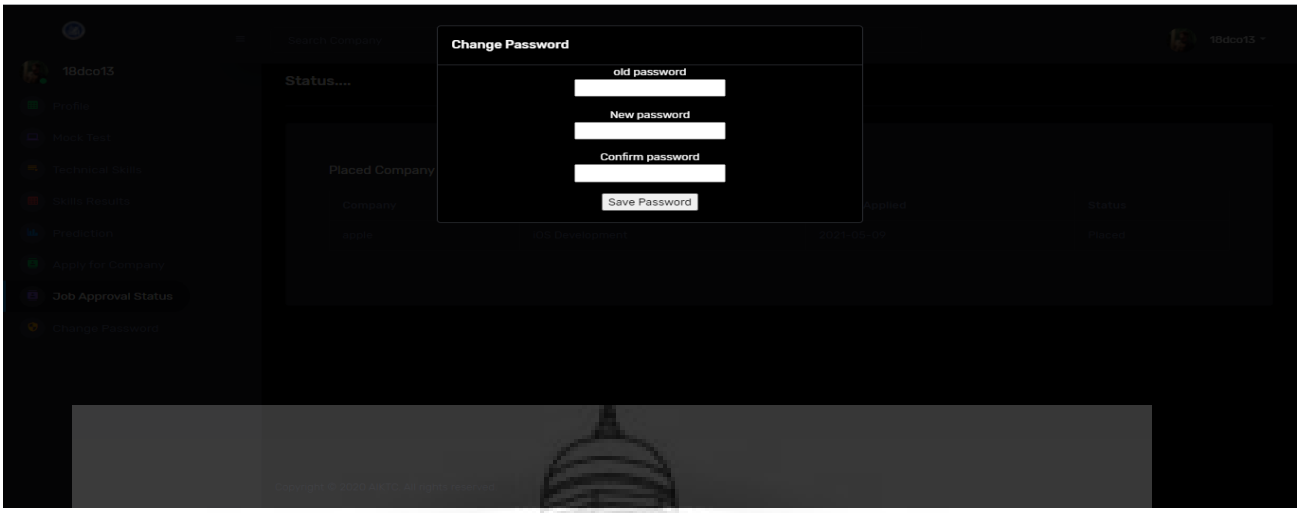

Figure 8.57: Change Password

Chapter 9

Conclusion and Future Scope

9.1 Conclusion

As we have seen throughout our studies, that the problem statements we have approached are student, college, and corporate centric. The solution to all of these problem statements, is based on the model we are going to build, the output of which will be a number between 0-1, which will determine, the prediction of a student being placed. During this process, a lot of other dependent variables will be predicted which will help solve the problem statements.

The expected outputs of the system for student end, is the prediction about their placement, and the statistics of how they can fair well. College end will have the analysis of every student, and will have the opportunity to focus more on the improvement of students. Also because of the system, the college will have one platform to manage the data of the students, thus solving another issue.

The corporate will be able to apply filters, compare students, and download resume of the students they're interested in, also they will get student related questions that they can ask, in the interview.Placement Prediction system is a web-based application which predicts student placement status using machine learning techniques. Many research papers are there related to educational sector, all these papers mainly concentrate on student performance predictions. All these predictions help the institute to improvise the student performance and can come

up with hundred percent results. Many of the previous system concentrate on a less number of parameters such as CGPA and Areas for placement status prediction which leads to less accurate results, but proposed work contains many educational parameters to predict placement status which will be more accurate.

From a proper analysis of positive points and constraints on the component,it can be safely concluded that the product is highly efficient GUI based component. This component can be easily plugged in many other systems where such kind of prediction and management is required.Also the component is user friendly i.e.it is easy to understand and also easy to use.There is a need to solve the different placement problems arises during the process.This software comes with just the solution.

9.2 Future Scope

- When the research work and the different models combined together and given a web application to be accessed the project will be of use to all the people.
- The continual additions of data will cause the models to work more efficiently but fine tuning of the models with more qualitative parameters is necessary.
- The models are exposed to the risk of over fitting in the future and hence the parameters can change their co relations and hence retraining the models is important.
- Modify the project with better approach with more graphics.
- Backup procedure can be incorporated to make sure of database integrity.
- A complete application where in a centralised database and the internship data of the student can be kept for mining processes to

better understand the students and provide valuable guidance to students.

- The project is open for using the models that can be available to the mankind in near future.
- To keep hardware and software as minimum as possible so that it supports maximum user base.
- To add some more parameters to predict more efficient and accurate placement prediction.

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