PLACEMENT MANAGEMENT SYSTEM

A MAIN PROJECT REPORT

SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE AWARD OF DEGREE OF

BACHELOR OF TECHNOLOGY

in

Computer Science and Engineering

of

APJ Abdul Kalam Technological University

by

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(AN ISO 9001:2015 CERTIFIED INSTITUTION)

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MAY 2023

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Certificate

This is to certify that the Main Project Report titled **"PLACEMENT MANAGEMENT SYSTEM"** is a bonafide record of the work carried out by **Aaryaka P Nath (VAS19CS002)** , **Abhirami P D (VAS19CS009)**, **Adithya M P (VAS19CS012)**, **Amisha Ramesh (VAS19CS016)** of Vidya Academy of Science & Technology, Thalakkottukara, Thrissur - 680 501 in partial fulfillment of the requirements for the award of **Degree of Bachelor of Technology** in **Computer Science and Engineering** of **APJ Abdul Kalam Technological University**, during the academic year 2022-2023. The Main Project report has been approved as it satisfies the academic requirements in the respect of main project work prescribed for the said degree.

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Undertaking

We,

Aaryaka P Nath (VAS19CS002), Abhirami P D (VAS19CS009), Adithya M P (VAS19CS012), Amisha Ramesh (VAS19CS016) hereby undertake that the Main Project Phase 2 work entitled **"PLACEMENT MANAGEMENT SYSTEM"**, is carried out by us independently under the valuable guidance of **Ms. Remya P S**, Assistant Professor, Department of Computer Science and Engineering, Vidya Academy of Science and Technology, Thalakottukara, Thrissur in partial fulfillment of the requirements for the award of degree of **Bachelor of Technology in Computer Science and Engineering** of **APJ Abdul Kalam Technological University**, during the academic year 2022-2023.

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Abstract

Placement Management System is a web and android based application developed for the training and placement department of the college in order to provide the details of the students in a database for the companies to their process of recruitment provided with a proper login. The system contain 4 modules as Student module, Tutor module, TPC module and Admin module. Each module has the same login page. The login page has a login id and passsword field. By ensuring values in that field users should log in to the system.

The placement management system contains all the information about the students. The system stores all the personal information of the students, like their personal details, Academic details, aggregate marks, skill set that are required in the resume to be sent to a company. This system can be used as an application for the TPC of the college to manage the student information with regards to placement. The tutors also plays an important role by verifying the details entered by the students and also by providing attendance to students participated in placement drives. Since many of the students are not up-to-date in checking emails, notifications of drive events will be provided.

By maintaining student's information, the system helps to have selections to be made easy for TPC in its test for the recruitment process. Placement officer can send required materials used for placements preparation to students. With this option preparation for placements becomes easy.This would help the students to analyze their performance and prepare for the placements. The students can search for the material required for the selection process such as aptitude, reasoning, Group Discussion topics etc and various websites for placement papers. Placements events happening in the college and the achieve-

ments of the student's i.e. selected students' details can be viewed.

So, our project create an ease in the recruitment process conducted in college by providing students details about company in which they are eligible for and also TPC to conduct their work in a much organized manner.

Contents

List of Figures

List of Symbols and Abbreviations

TPC	Training Placement Cell
WWW	World Wide Web
PHP	Hypertext Preprocessor
TPO	Training and Placement Officer
DFD	Data Flow Diagram
HR	Human Resource
HTML	HyperText Markup Language
CSS	Cascading Style Sheets
JS	Java Script
XML	Extensible Markup Language
RDBMS	Relational Database Management System
WORA	Write Once,Run Anywhere
JVM	Java Virtual Machine
XAMPP	Cross-platform,Apache,MySQL,PHP,Perl
XSLT	Extensible Stylesheet Language Transformations
CLI	Command Line Infrastructure
IDE	Integrated Development Environment
UI	User Interface

APK	Android Application Package
FTP	File Transfer Protocol
ERP	Enterprise Resource Planning
GD	Group Discussion

Chapter 1

INTRODUCTION

1.1 MOTIVATION FOR THIS WORK

The use of the Internet and the WWW has revolutionized the provision of information and the facility for the user to take action on the information obtained. The current system are computerized but it does not meet to the point that are needed by the Training and Placement Cell. So to overcome the limitations we are proposing the new system. In existing system the data taken by the students is maintained automatically but to sort them according to the companies criteria has to be done manually by the TPC. Manual sorting is a hectic job and can sometimes it lead to inaccuracy. The manual work makes the process slow and other problems such as inconsistency and ambiguity on operations. This led to a unique web-android based Placement Management System. It intends to help fast in fast access procedures in placement related activities and ensures to maintain the details of the student. The main purpose of this project is to add a new features of existing system to developing an application for the Training and Placement Cell of the college. As it is an online application, which can be accessed easily throughout the organization as well as outside. This can be used as an application for the TPC in the college to manage the student information about regarding to the placements for upcoming company

1.2 PROBLEM STATEMENT

- Now a day's campus placements are conducted in all colleges. Various software and other sector companies are conducting campus selections for selecting candidates.
- Training and placement cell has a very important role in college. In the existing system all the work has been done manually by the Training and Placement cell
- The placement officer has to find out the students eligible for the company based on their criteria and have to consult the student directly if any information is needed. This is dreary and time consuming.

1.3 OBJECTIVES

The main objective of the placement management system is to reduce manual work and time. It is difficult and time-consuming to collect all the details from each student. To avoid this problem we have planned to develop a web-android based placement management system.

- Easy to find out the list of eligible students attending the drives.
- It manages the details of student records, placement training, different placements happening in and out of the college.
- Saves the time of placement officer and faculties.
- Reduces the manual works.
- This system makes student information more secure.

Chapter 2

LITERATURE REVIEW

2.1 LITERATURE SURVEY

2.1.1 ”Placement Cell Management System.” [1]

- **Authors** : Muniraju N, Amutha N
- **Source** :IJPRSE
- **Year** :2022

Placement Cell is an Online-based software application. The project is developing an application for the “PLACEMENT CELL MANAGEMENT SYSTEM” of the college. So that the university site can provide the important points of their students in a database so that the companies. The Admin can up data the college information. The Placement Cell contains all information regarding students. This device store all the students’ Academic details and personal information. This system can be used as an application for the Placement Officers in the college to manage the student information with regard to placement. Student logging should be able to upload their personal and educational information in the form of a resume. The key feature of this project is that it is one time registration enabled. Our project provides the facility of maintaining the details of the students. It reduces the manual work and consumes less paper work to reduce the time. This project is developed with PHP for frontend and MySQL for backend.

2.1.2 ”E-Traning and Placement Management System.” [2]

- **Authors** : Samrudhi Padwal, Samruddhi Ghorpade, Prof. P.R. Patil, Manasi Patil, Shraddha Biraje, Sapana Salunkhe
- **Source** : IRJMETS
- **Year** : 2020

The Project Named “E-training and placement management system” is a student, campus Information system. It is a management system which is supported by database. TPO has a major role in every college in which most of the work till now is carried out manually. The goal is to automate the Training and Placement procedure in colleges. This application reduces manual work and maximize the optimization, abstraction and security. This is a web application will help students as well as the administrator authority to carry out each and every activity in campus hiring. This application can be used for the Training and placement cell of the college to manage the student information regarding placement. Students will able to view eligibility criteria based on their percentage for the up-coming placement drives and they can access technical and Questions regarding particular company. It has the facility to maintain the details of the student and reducing the manual work. Training and Placement Officer (TPO) is able to view information about student and collect their resumes and so many ad-on functionalities. This system can be accessed through proper login.

2.1.3 "Designing of Web Portal for Training and Placement Cell." [3]

- **Authors** :Shivangi Gupta, Jyoti Hingorani, Swati Singh, Neelam Phadnis
- **Source** : IRJET
- **Year** : 2021

Training and placement cell has a very important role in College. Designing of web portal for training and placement cell is aimed at providing the help to automate the manual activity of the placement cell. This Application can store all the information of the student like their personal information, all the information related to their academics, skills, resume etc. Students will be able login, view and apply for the drives in which their interested. The Training and Placement officer of the college will have access to all the information related to students which is required for them. Only Respective Students can edit their details. The Training and Placement officer can also filter the number of students eligible for a specific Company based on the company criteria and can also notify them related to placement activities. This application can be a convenient tool for the Training and Placement officer of the college to manage the information of the students with respect to placement process.

2.1.4 ”Placement Event Management System.” [4]

- **Authors** : C.Anuradha, Mohamed Salman.R, John Dalton.H
- **Source** : International Journal of Modern Agriculture
- **Year** : 2020

The main purpose of this project is to simplify the process of handling each placement event by providing a web interface for admin and coordinator. The admin part consists of multiple modules to initiate with the placement event by adding the type of events (on campus or off campus), adding students who are interested in a particular event, adding coordinators who will conduct the particular activity which is allotted by the admin itself and lastly, viewing the results of event held in college. The coordinator part has come up with handling all the related activity assigned by the admin. Coordinator performs various task such as taking the attendance of the students who are registered for a particular event, viewing the list of students from each round,generating the results based on multiple rounds performed by the student and also can view the student’s Name who were got selected from the particular placement event.

2.1.5 ”Web Based Placement Analysis and Tracking System.”[5]

- **Authors**:Dr.M.Raja Roy, S.Satya Sri, B.Sai Ram, SK.Muneer, G.Midhilesh
- **Source** : IJREAM
- **Year** : 2020

Training and Placement Cell is the management cell it is supported by databases. Training and Placement has the major role in every college in which most of the work till now is being done manually. The aim of this project is to Automate the Training and Placement procedure in the college. This project will reduce manual work and maximum optimization, abstraction and security. This is a web application which will help students as well as the administration authority to carry out each and every activity in the campus hiring. The system is an application that can be accessed throughout the organization with proper login credentials. This system can be used as an application for the Training and placement officer (TPO) of the college to manage the student information with regarding to the placement recruitment. Students logging should be able to see which placements are coming soon, attendance ,etc,. Students login should able to view eligibility criteria based on their cgpa for the up-coming placement drives and they can access technical and QA papers regarding to particular company.

Chapter 3

SYSTEM ARCHITECTURE AND METHODOLOGY

3.1 System Architecture

Web application architecture defines the interactions between applications, middleware systems and databases to ensure multiple applications can work together.

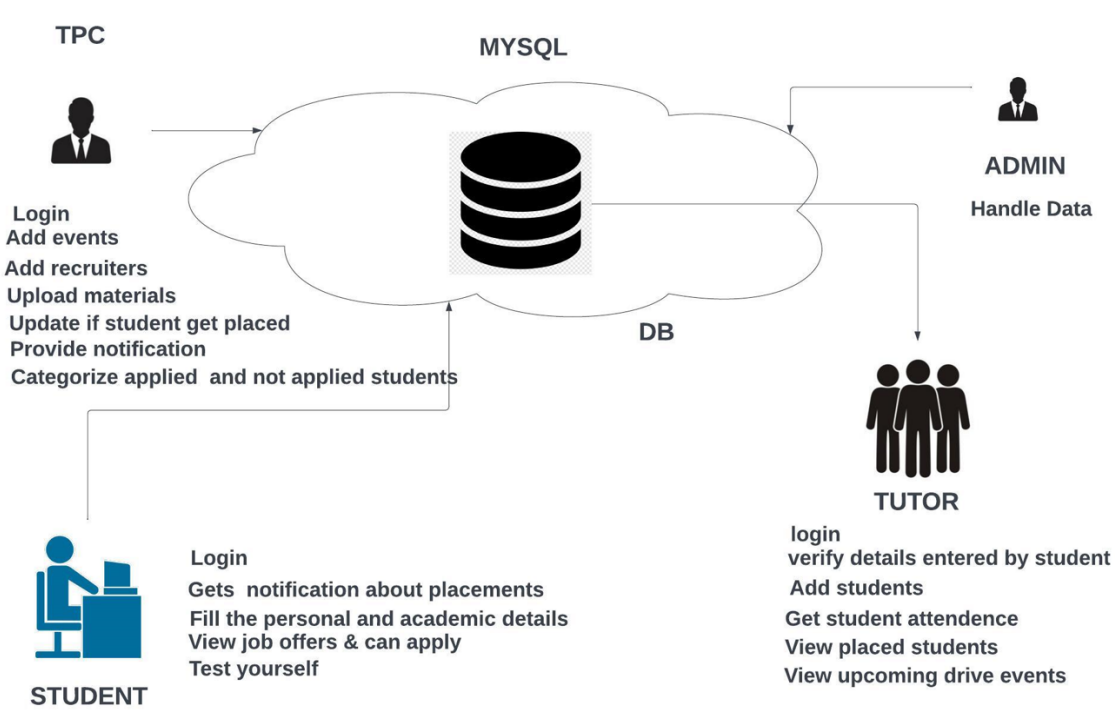

Figure 3.1: System Architecture

Here the system architecture basically consist of 4 modules :

- **TPC**

  In this module, the function of TPC is to add job offers , upload the materials for the students. They can also search the student based on the criteria of the company and can even update if student get placed. Also TPC can send notifications to the students based on placement related activities.

- **STUDENT**

  In Student module, they can register and login to our web and android application using credentials. Then they have to fill their personal and academic details and also they gets the notification about drive events as well.Students can view and apply the job offers according to their eligibility. They can test themselves by attending the aptitude questions, uploaded by TPC and can also refer the GD questions, HR interview questions etc that are provided by TPC.

- **ADMIN**

  Admin can handle all the process in this project. The main role of admin is that they can add TPC, students, tutors and also they can add and view the drive events.

- **TUTOR**

  In this module, Tutor can login using their respective credentials. Main function of tutor is to verify the details entered by students and can even provide attendance to students who had participated in placement related events.Tutors can also add the students .They can view the list of placed students updated by TPC. Tutors are also able to view the upcoming drives and events.

  All these data are stored in MySQL database.

3.2 Methodology

The proposed Placement management system meant to give more easiness to the users that they can add and retrieve information so quickly. There are mainly four types of users :

- Administrator
- Student
- TPC
- Tutor

The administrator is the master user, gets the most number of priorities than the other users. The administrator can view and approve the various application forms. Students can register, view the details and they can search for the material required for the selection process such as aptitude, reasoning etc and various websites for placement papers. The placement officer can view the details of the company, placed students, and training details. And the tutor can verify the student details and can also provide the duty leave status for the students who attended the pre-placement talks,interviews during working days.

The home page contain various links such as links to login, various services like events happened, achievements and recruiter details etc. All the users have some common services like changing password, updating details, searching for details, checking the details and reading the material uploaded if the user is a student. The proposed placement management system is intended to avoid all the drawbacks of existing system. It will add some more features than the existing system. The proposed system is a cost effective way of doing the manual processes done in the existing system.

3.3 Admin

The administrator plays an important role in the project. In this module admin will login through username and password, once he logins he will be directed to the dashboard where he gets the every student of different courses and departments. The admin can add the newly added courses, departments and also can add new batch. The admin can also view the complete list of courses, departments, and batches. Admin can also add and view the details of TPC, student, Tutor. He/She can view the events happened or going to be happen. Admin has a master role who handles the data and manages all.

3.4 Student

In the student module first the student should get registered to the system by filling the placement registration form which contains the details such as name, course, email, mobile number and password. Once the student fills the placement registration form the account activation link will be sent to the students email to activate their account. Once the student activates the account they can login to the system through the username and password and should fill the academic registration form.

The application form will contain the details such as personal details and educational qualifications. If the student wants to change/update his details then the student should meet the placement officer to do the necessary changes. They has the facility to change the login password. Students can search for the material required for the selection process such as aptitude, reasoning etc and various websites for placement papers.

3.5 TPC

The training and placement officer can also login through the username and password. The placement officer can add the newly visiting company name and details to the database. The TPC can assign the company, assigning the company is nothing but in which year it is visiting, what's the company criterion etc.

The TPC should map the students, mapping the students is nothing but assigning students who are eligible to attend the placements based on company's selection criteria and also if the students get placed in some company the TPC should update the details such as in which company the student has been placed. The TPC can maintain all the companies information by adding the details of the HR such as his name, mobile number, HR level, email, company name etc.The TPC can upload the materials(previous years aptitutde questions,interview questions etc.) as a reference and also for the students to test themselves.

3.6 Tutor

Tutor can also login to the system through the username and password.They can update the details of the students if needed.The main important role of a tutor in the system is to verify the details uploaded by students. After filling the application form by the student, tutor will check the details of the student and verify it. Tutor can also provide duty leave for the students who had attended the pre-placement talks ,interviews etc during the class hours.

Chapter 4

SYSTEM REQUIREMENTS AND SPECIFICATIONS

4.1 HTML

The HyperText Markup Language or HTML is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript. Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document. HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. It is used to design web pages using a markup language. HTML is the combination of Hypertext and Markup language. Hypertext defines the link between web pages. A markup language is used to define the text document within the tag which defines the structure of web pages.

4.2 CSS

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language such as HTML or XML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript. CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts. This separation can improve content accessibility; provide more flexibility and control in the specification of presentation characteristics; enable multiple web pages to share formatting by specifying the relevant CSS in a separate .CSS file, which reduces complexity and repetition in the structural content; and enable the. CSS file to be cached to improve the page load speed between the pages that share the file and its formatting.

4.3 JAVASCRIPT

Javascript is used by programmers across the world to create dynamic and interactive web content like applications and browsers. Client-side languages are those whose action takes place on the user's computer, rather than on the server. JavaScript is versatile enough to be used for a variety of different applications, like software, hardware controls, and servers. JavaScript is most known for being a web based language, because it's native to the web browser. The web browser can naturally understand the language, like how a native English speaker can naturally understand English. JavaScript is a high-level, often just-in-time compiled language that conforms to the ECMAScript standard

4.4 BOOTSTRAP

Bootstrap is a free and open-source CSS framework directed at responsive, mobile-first front-end web development. It contains HTML, CSS and (optionally) JavaScript-based design templates for typography, forms, buttons, navigation, and other interface components.Bootstrap is an HTML, CSS and JS library that focuses on simplifying the development of informative web pages (as opposed to web applications). The primary purpose

of adding it to a web project is to apply Bootstrap's choices of color, size, font and layout to that project. As such, the primary factor is whether the developers in charge find those choices to their liking. Once added to a project, Bootstrap provides basic style definitions for all HTML elements. The result is a uniform appearance for prose, tables and form elements across web browsers. In addition, developers can take advantage of CSS classes defined in Bootstrap to further customize the appearance of their contents.

4.5 PHP

PHP is a general-purpose scripting language geared toward web development. It was originally created by Danish-Canadian programmer Rasmus Lerdorf in 1993 and released in 1995. The PHP reference implementation is now produced by The PHP Group. PHP originally stood for Personal Home Page, but it now stands for the recursive initialism PHP: Hypertext Preprocessor. PHP code is usually processed on a web server by a PHP interpreter implemented as a module, a daemon or as a Common Gateway Interface (CGI) executable. On a web server, the result of the interpreted and executed PHP code – which may be any type of data, such as generated HTML or binary image data – would form the whole or part of an HTTP response. Various web template systems, web content management systems, and web frameworks exist which can be employed to orchestrate or facilitate the generation of that response. Additionally, PHP can be used for many programming tasks outside the web context. PHP code can also be directly executed from the command line.

4.6 MySQL

MySQL is an open-source relational database management system (RDBMS). Its name is a combination of "My", the name of co-founder Michael Widenius's daughter My, and "SQL", the acronym for Structured Query Language. A relational database organizes data into one or more data tables in which data may be related to each other; these relations help structure the data. SQL is a language programmers use to create, modify and

extract data from the relational database, as well as control user access to the database. In addition to relational databases and SQL, an RDBMS like MySQL works with an operating system to implement a relational database in a computer's storage system, manages users, allows for network access and facilitates testing database integrity and creation of backups.

4.7 JAVA

Java is a high-level, class-based, object-oriented programming language that is designed to have as few implementation dependencies as possible. It is a general-purpose programming language intended to let programmers write once, run anywhere (WORA), meaning that compiled Java code can run on all platforms that support Java without the need to recompile.Java applications are typically compiled to bytecode that can run on any Java virtual machine (JVM) regardless of the underlying computer architecture. The syntax of Java is similar to C and C++, but has fewer low-level facilities than either of them. The Java runtime provides dynamic capabilities (such as reflection and runtime code modification) that are typically not available in traditional compiled languages. As of 2019, Java was one of the most popular programming languages in use according to GitHub,[particularly for client–server web applications, with a reported 9 million developers. Java was developed by Sun Micro systems (which is now the subsidiary of Oracle) in the year 1995. James Gosling is known as the father of Java. Before Java, its name was Oak. Since Oak was already a registered company, so James Gosling and his team changed the name from Oak to Java.

4.8 XML codes

Extensible Markup Language (XML) is a markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable.XML is designed to carry data emphasizing on what type of data it is .HTML is a markup language whereas XML provides a framework for defining markup languages.The design

goals of XML focus on simplicity, generality, and usability across the Internet. It is a textual data format with strong support via Unicode for different human languages. Although the design of XML focuses on documents, the language is widely used for the representation of arbitrary data structures such as those used in web services.

- XML makes web development User Friendly : Many computer systems contain data in incompatible formats. Exchanging data between incompatible systems or upgraded systems is a time-consuming task for web developers. Large amounts of data must be converted, and incompatible data is often lost. XML stores data in plain text format. This provides a software- and hardware-independent way of storing, transporting, and sharing data.

- XML is Extensible: XML applications will work as expected even if data is edited i.e. added or removed.

4.9 Visual Studio

Visual Studio is an integrated development environment (IDE) from Microsoft. It is used to develop computer programs including 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 supports 36 different programming languages and allows the code editor and debugger to support (to varying degrees) nearly any programming language, provided a language-specific service exists. Built-in languages include C, C++, C++/CLI, Visual Basic .NET, JavaScript, TypeScript, XML, XSLT, HTML, and CSS. Support for other languages such as Python, Ruby, Node.js, and M among others is available via plug-ins. Java were supported in the past.

Visual Studio includes a code editor supporting IntelliSense (the code completion component) as well as code refactoring. The integrated debugger works as both a source-level debugger and as a machine-level debugger. Other built-in tools include a code pro-

filer, 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 (like Subversion and Git) and adding new tool sets like editors and visual designers for domain-specific languages or tool sets for other aspects of the software development lifecycle .

4.10 Android Studio

Android Studio is an integrated development environment (IDE) specifically designed for developing Android applications. It provides a comprehensive set of tools and features to streamline the app development process, making it easier for developers to create, test, and debug Android apps. Android Studio offers a powerful code editor with features like syntax highlighting, code completion, and refactoring tools. It supports multiple programming languages, including Java and Kotlin.It includes a visual layout editor that allows developers to design the user interface (UI) of their apps using a drag-and-drop interface. Developers can easily create UI layouts and preview them in different screen sizes and orientations.

Android Studio uses the Gradle build system, which simplifies the process of building, testing, and packaging Android apps. Gradle manages dependencies, compiles code, and generates the APK (Android application package) file. It comes with a built-in emulator that allows developers to test their apps on virtual Android devices. It supports various device configurations, enabling developers to emulate different screen sizes, hardware capabilities, and Android versions.It provides debugging tools to identify and fix issues in your app's code. It also includes profiling tools to optimize app performance, analyze CPU and memory usage, and identify potential bottlenecks.

Firebase is a mobile platform by Google that offers a wide range of services for building and growing Android apps. Android Studio provides seamless integration with Firebase, enabling developers to easily incorporate features like authentication, real-time databases, cloud messaging, and analytics into their apps.

4.11 XAMPP

XAMPP is a software package that provides a complete web development environment for creating and testing dynamic websites locally on your computer. The name ”XAMPP” stands for Cross-Platform (X), Apache (A), MariaDB/MySQL (M), PHP (P), and Perl (P). It is available for Windows, macOS, Linux, and Solaris operating systems.It includes the Apache web server, which is a popular open-source web server software. Apache is responsible for serving web pages and handling HTTP requests.It also includes additional components like OpenSSL for secure communication, FileZilla FTP server for file transfer, and Mercury Mail Server for sending and receiving emails.

XAMPP simplifies the process of setting up a local development environment by bundling all the necessary components in one package. It allows you to work on your website or web application without the need for an internet connection or a remote server. XAMPP is often used by developers, students, and hobbyists to experiment, develop, and test their web projects before deploying them to a production environment.

Chapter 5

SYSTEM DESIGN

System design is the process of designing the elements of a system such as the architecture, modules and components, the different interfaces of those components and the data that goes through that system.

5.1 Data Flow Diagram

A data flow diagram (DFD) maps out the flow of information for any process or system. It uses defined symbols like rectangles, circles and arrows, plus short text labels, to show data inputs, outputs, storage points and the routes between each destination. Data flowcharts can range from simple, even hand-drawn process overviews, to in-depth, multi-level DFD's that dig progressively deeper into how the data is handled. They can be used to analyze an existing system or model a new one.

DFD graphically representing the functions, or processes, which capture, manipulate, store, and distribute data between a system and its environment and between components of a system. The visual representation makes it a good communication tool between User and System designer. Structure of DFD allows starting from a broad overview and expand it to a hierarchy of detailed diagrams. DFD has often been used due to the following reasons:

- Logical information flow of the system
- Determination of physical system construction requirements

- Simplicity of notation
- Establishment of manual and automated systems requirements

In this data flow diagram it shows the working of admin module, TPC module, Tutor module and student module.

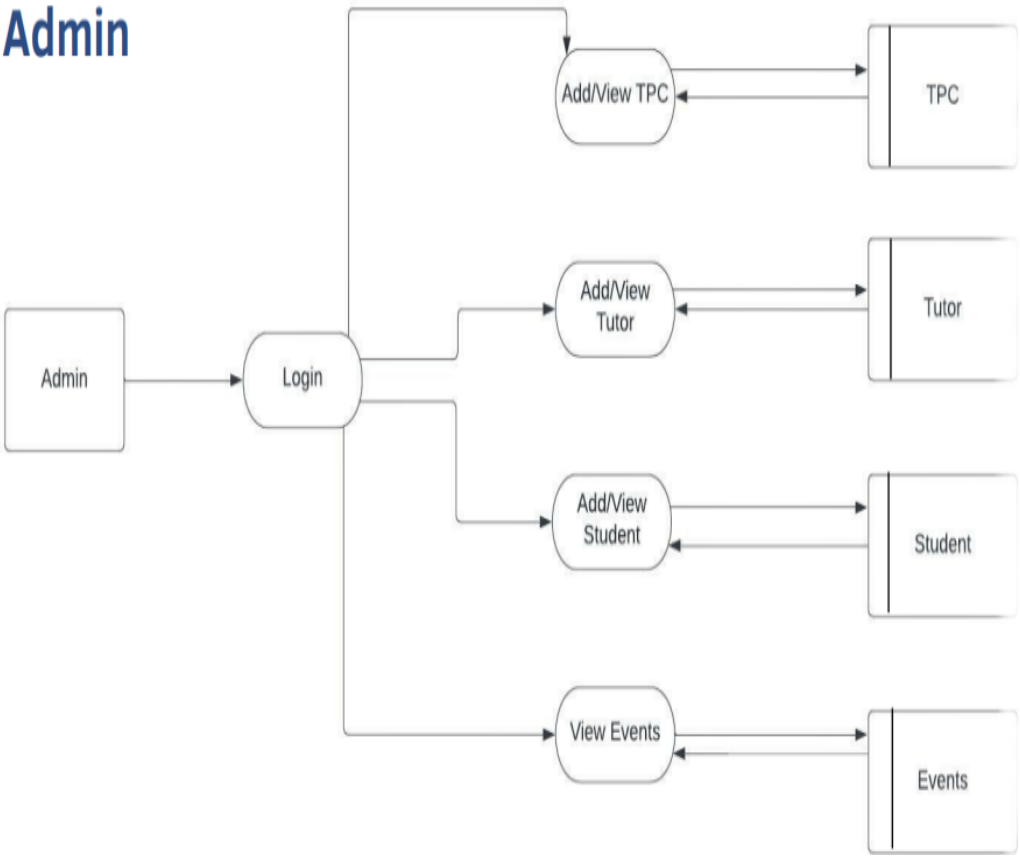

Figure 5.1: Data Flow Diagram of Admin

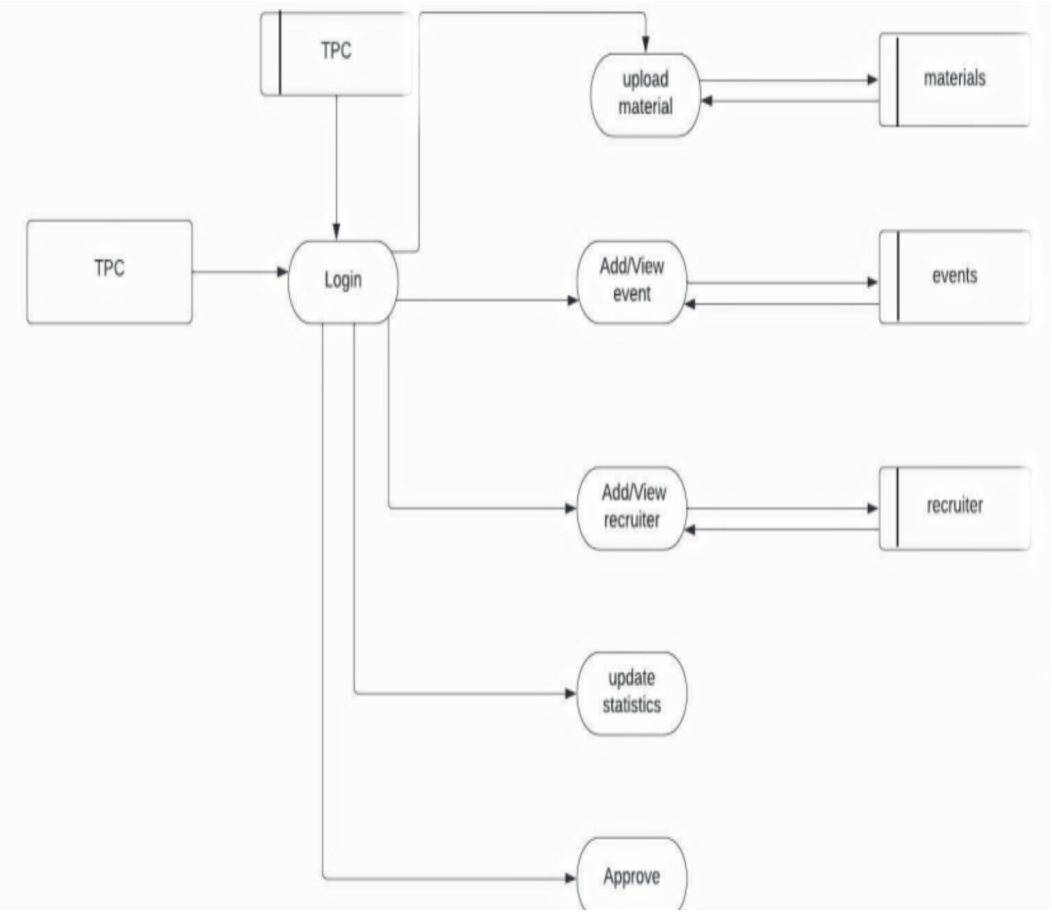

Figure 5.2: Data Flow Diagram of tpc

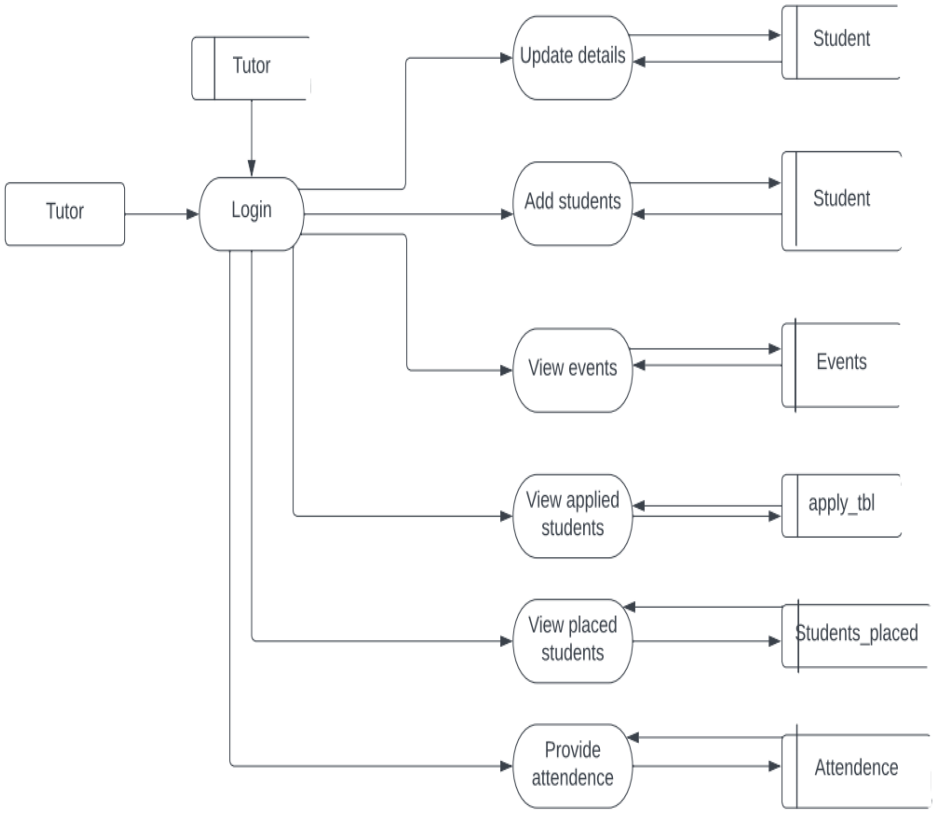

Figure 5.3: Data Flow Diagram of Tutor

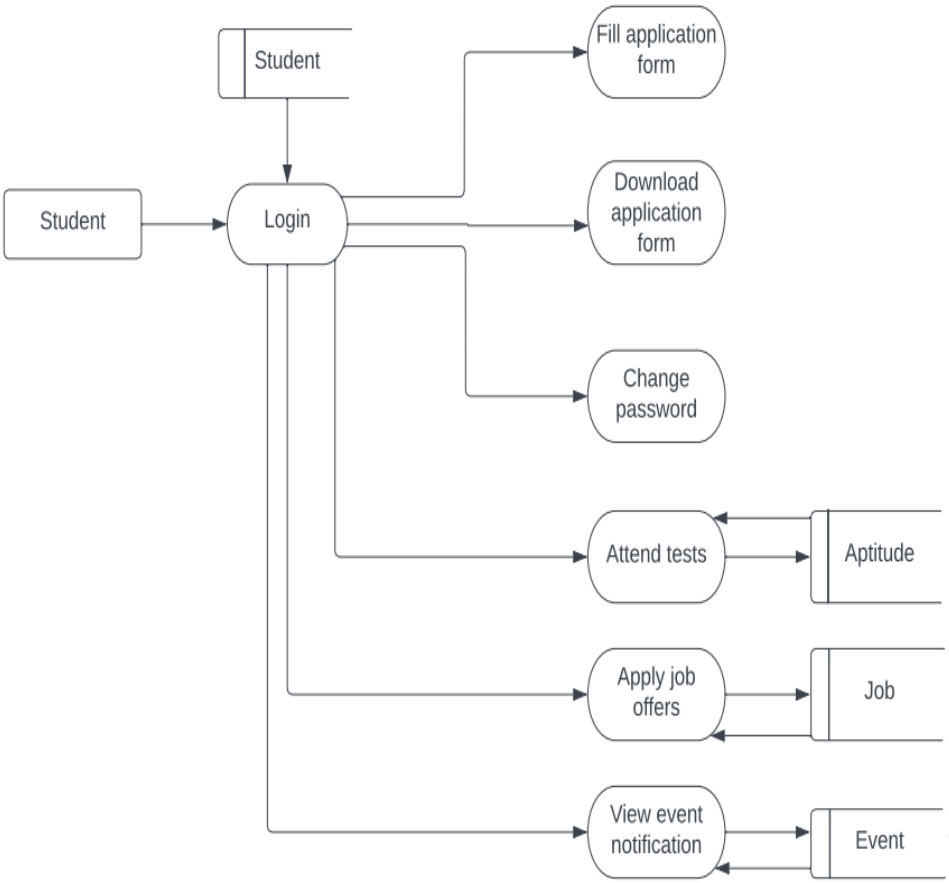

Figure 5.4: Data Flow Diagram of Student

Chapter 6

USE CASE DIAGRAM

A use case diagram is used to represent the dynamic behavior of a system. It encapsulates the system's functionality by incorporating use cases, actors, and their relationships. It models the tasks, services, and functions required by a system/subsystem of an application. It depicts the high-level functionality of a system and also tells how the user handles a system.

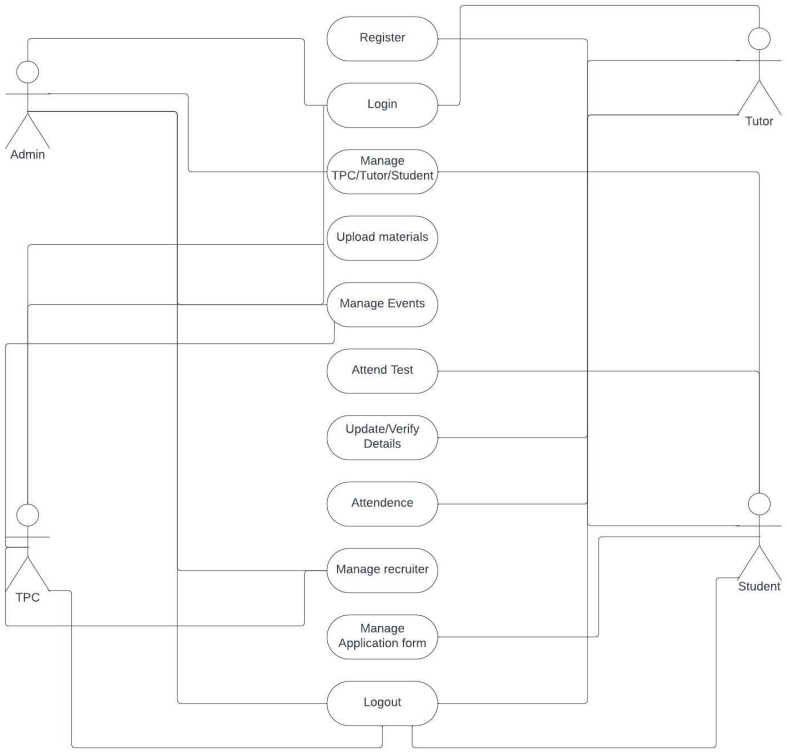

Figure 6.1: Use Case Diagram

Chapter 7

DATABASE DESIGN

Database design can be generally defined as a collection of tasks or processes that enhance the designing, development, implementation, and maintenance of enterprise data management system. Designing a proper database reduces the maintenance cost thereby improving data consistency and the cost-effective measures are greatly influenced in terms of disk storage space. Therefore, there has to be a brilliant concept of designing a database. The designer should follow the constraints and decide how the elements correlate and what kind of data must be stored.

The main objectives behind database designing are to produce physical and logical design models of the proposed database system. To elaborate this, the logical model is primarily concentrated on the requirements of data and the considerations must be made in terms of monolithic considerations and hence the stored physical data must be stored independent of the physical conditions. On the other hand, the physical database design model includes a translation of the logical design model of the database by keep control of physical media using hardware resources and software systems such as Database Management System (DBMS).

student

Column	Type	Null	Constraints
id	int(11)	No	Primary Key
name	varchar(100)	No	
email	varchar(150)	No	
phone	varchar(150)	No	
course	varchar(150)	No	
gender	varchar(150)	No	
password	varchar(150)	No	

Figure 7.1: Database Design of Student

tpc

Column	Type	Null	Constraints
id	int(11)	No	Primary Key
name	varchar(150)	No	
email	varchar(150)	No	
phone	varchar(150)	No	
password	varchar(150)	No	

Figure 7.2: Database Design of TCP

tutor

Column	Type	Null	Constraints
id	int(11)	No	Primary Key
name	varchar(150)	No	
email	varchar(150)	No	
phone	varchar(150)	No	
password	varchar(150)	No	

Figure 7.3: Database Design of Tutor

company

Column	Type	Null	Constraints
id	int(11)	No	Primary Key
name	varchar(150)	No	
place	varchar(150)	No	
email	varchar(150)	No	
phone	varchar(20)	No	

Figure 7.4: Database Design of Company

login

Column	Type	Null	Constraints
id	int(11)	No	Primary Key
uid	int(11)	No	Foreign Key
username	varchar(100)	No	
password	varchar(30)	No	
type	varchar(30)	No	

Figure 7.5: Database Design of Login

recruiter

Column	Type	Null	Constraints
id	int(11)	No	Primary Key
company_name	varchar(123)	No	
email	varchar(234)	No	
phno	varchar(222)	No	
details	varchar(212)	No	

Figure 7.6: Database Design of Recruiter

job

Column	Type	Null	Constraints
id	int(11)	No	Primary Key
company_id	int(11)	No	Foreign Key
job_role	varchar(50)	No	
skills	text	No	
eligibility	text	No	
backlogs	int(20)	No	
cgpa	varchar(20)	No	
date	date	No	
status	varchar(30)	No	

Figure 7.7: Database Design of Job

events

Column	Type	Null	Constraints
id	int(11)	No	Primary Key
event_name	varchar(150)	No	
date	date	No	
event_desc	text	No	
status	varchar(150)	No	

Figure 7.8: Database Design of Events

students_placed

Column	Type	Null	Constraints
id	int(11)	No	Primary Key
user_id	int(11)	No	Foreign Key
company_id	int(11)	No	Foreign Key
job_id	int(11)	No	Foreign Key

Figure 7.9: Database Design of Students placed

personal_details

Column	Type	Null	Constraints
id	int(11)	No	Primary Key
user_id	int(11)	No	Foreign Key
address	text	No	
city	varchar(50)	No	
state	varchar(50)	No	
pincode	varchar(30)	No	
dob	date	No	
alternate_email	varchar(50)	No	
skills	text	No	
photo	tinytext	No	
alternate_phone	varchar(20)	No	

Figure 7.10: Database Design of Personal Details

school_details

Column	Type	Null	Constraints
id	int(11)	No	Primary Key
user_id	int(11)	No	Foreign Key
school_name_10	varchar(50)	No	
board_10	varchar(50)	No	
pass_percentage_10	varchar(30)	No	
passout_year_10	varchar(30)	No	
school_name_12	varchar(50)	No	
board_12	varchar(50)	No	
stream	varchar(30)	No	
pass_percentage_12	varchar(30)	No	
passout_year_12	varchar(30)	No	

Figure 7.11: Database Design of School details

college_details

Column	Type	Null	Constraints
id	int(11)	No	Primary Key
user_id	int(11)	No	Foreign Key
branch	varchar(50)	No	
division	varchar(50)	No	
university_reg_no	varchar(100)	No	
college_id	varchar(50)	No	
passout_year	varchar(50)	No	
cgpa	varchar(30)	No	
existing_backlogs	varchar(30)	No	
percentage	varchar(30)	No	

Figure 7.12: Database Design of College details

documents

Column	Type	Null	Constraints
id	int(11)	No	Primary Key
user_id	int(11)	No	Foreign Key
photo	tinytext	No	
resume	tinytext	No	
marklist	tinytext	No	
signature	tinytext	No	

Figure 7.13: Database Design of Documents

apply_tbl

Column	Type	Null	Constraints
id	int(11)	No	Primary Key
user_id	int(11)	No	Foreign Key
company_id	int(11)	No	Foreign Key
job_id	int(11)	No	Foreign Key
status	varchar(20)	No	

Figure 7.14: Database Design of Apply

materials

Column	Type	Null	Constraints
id	int(11)	No	Primary Key
material	tinytext	No	
date	date	No	

Figure 7.15: Database Design of Materials

category

Column	Type	Null	Constraints
id	int(11)	No	Primary Key
category_name	varchar(255)	No	

Figure 7.16: Database Design of Category

aptitute

Column	Type	Null	Constraints
QID	int(11)	No	Primary Key
QUESTION	text	No	
A	varchar(200)	No	
B	varchar(200)	No	
C	varchar(200)	No	
D	varchar(200)	No	
ANSWER	varchar(20)	No	
category	varchar(100)	No	

Figure 7.17: Database Design of Aptitude

answer

Column	Type	Null	Constraints
id	int(11)	No	Primary Key
que	varchar(200)	No	
user	varchar(200)	No	
exam	varchar(200)	No	
ans	varchar(200)	No	
status	varchar(200)	No	

Figure 7.18: Database Design of Answers

hr_question

Column	Type	Null	Constraints
id	int(11)	No	Primary Key
question	varchar(100)	No	
answer	text	No	

Figure 7.19: Database Design of HR questions

gd_topics

Column	Type	Null	Constraints
id	int(11)	No	Primary Key
topic	text	No	

Figure 7.20: Database Design of GD topics

tech_questions

Column	Type	Null	Constraints
id	int(11)	No	Primary Key
question	varchar(100)	No	
answer	text	No	

Figure 7.21: Database Design of Tech questions

link

Column	Type	Null	Constraints
id	int(11)	No	Primary Key
link	varchar (255)	No	

Figure 7.22: Database Design of Links

Chapter 8

RESULTS

Figure 8.1: Home page

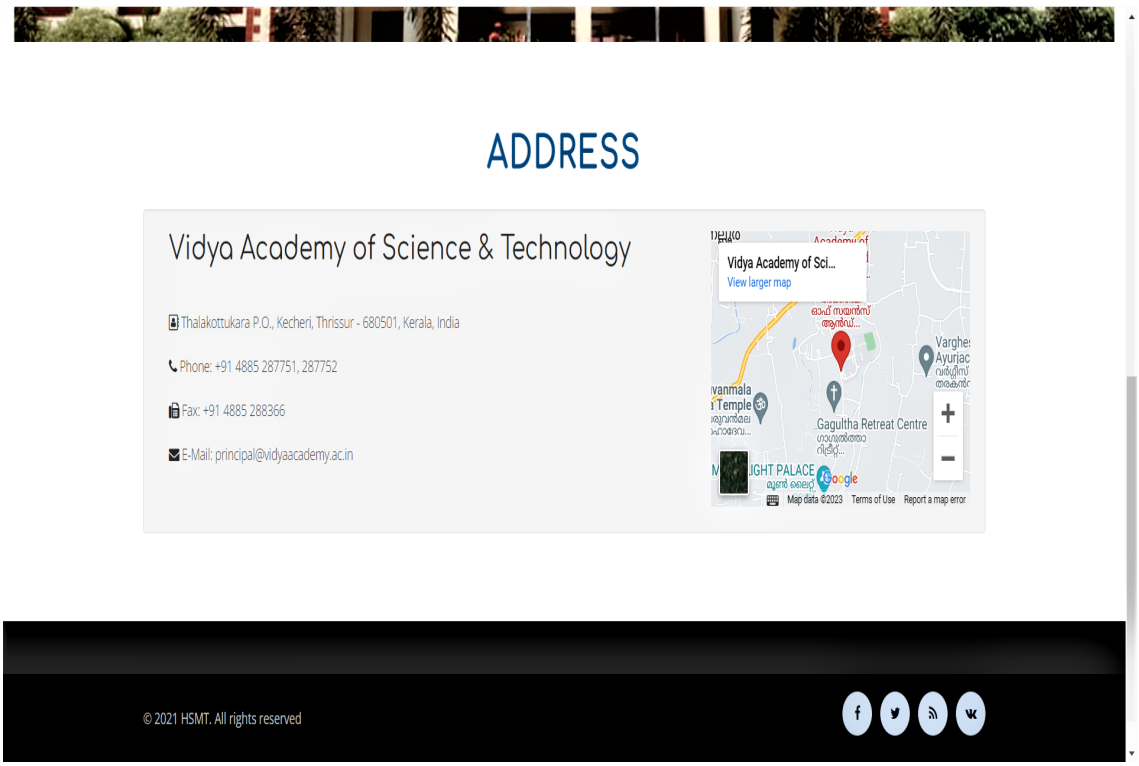

Figure 8.2: Home page

Figure 8.3: Login page

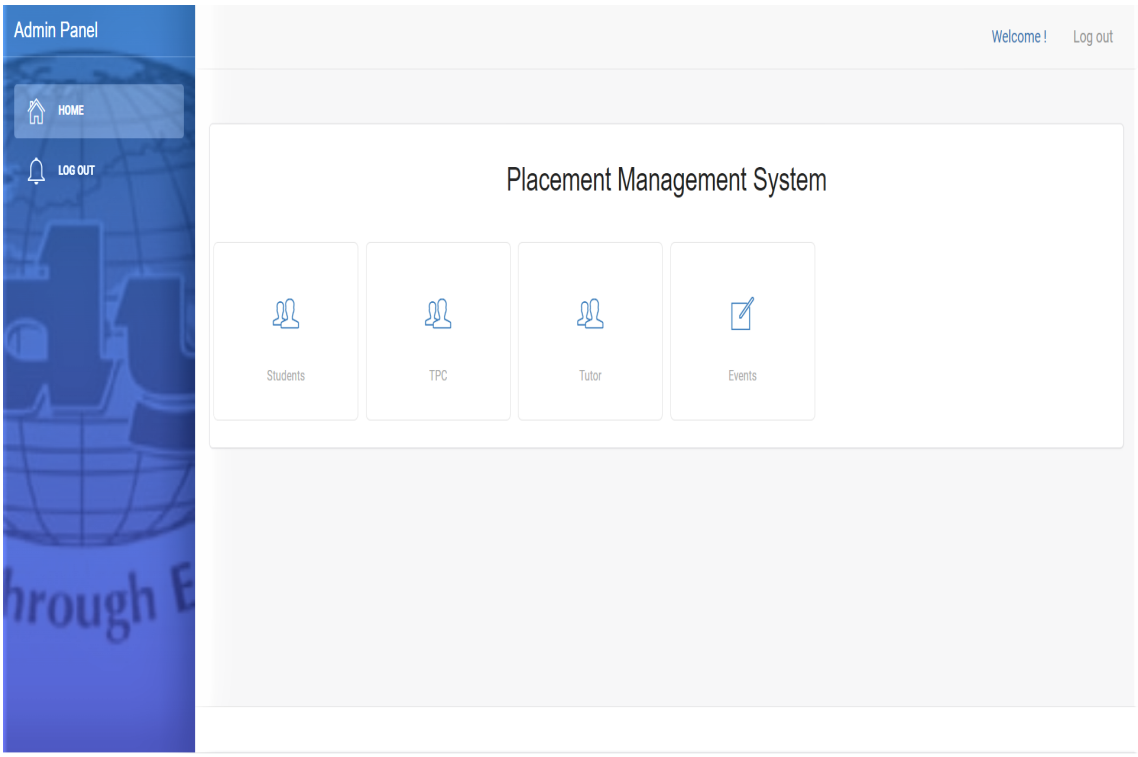

Figure 8.4: Admin Home Page

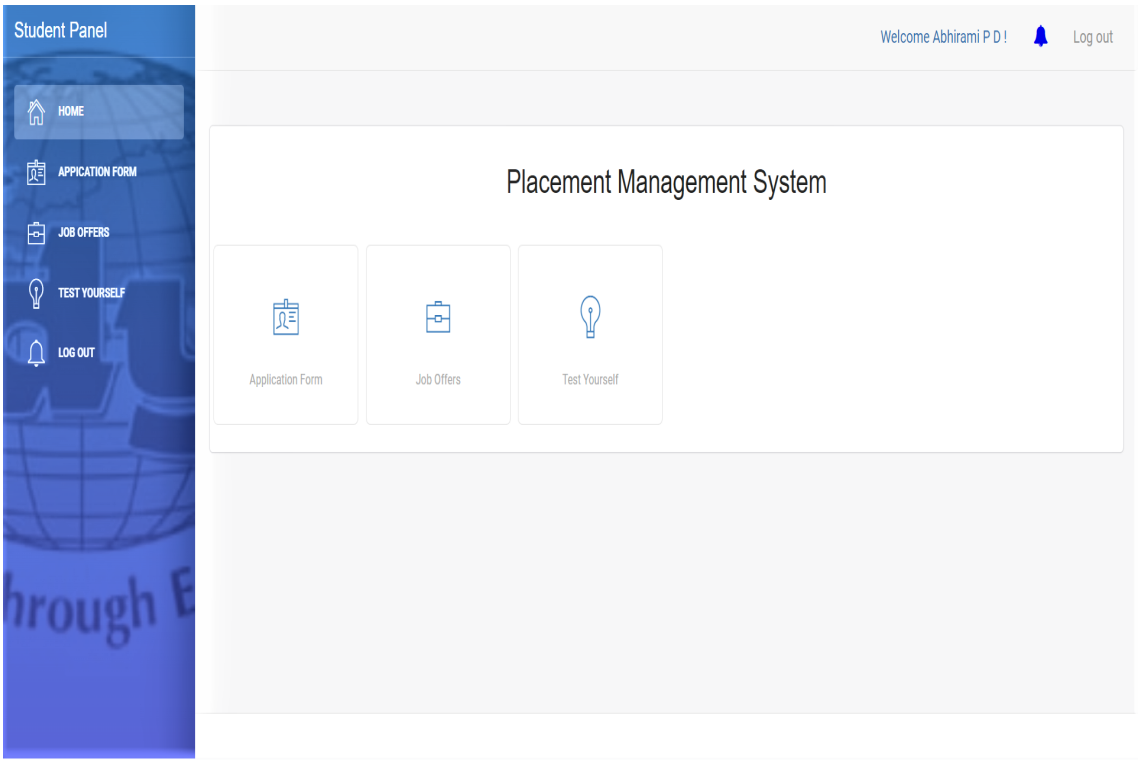

Figure 8.5: Student Home Page

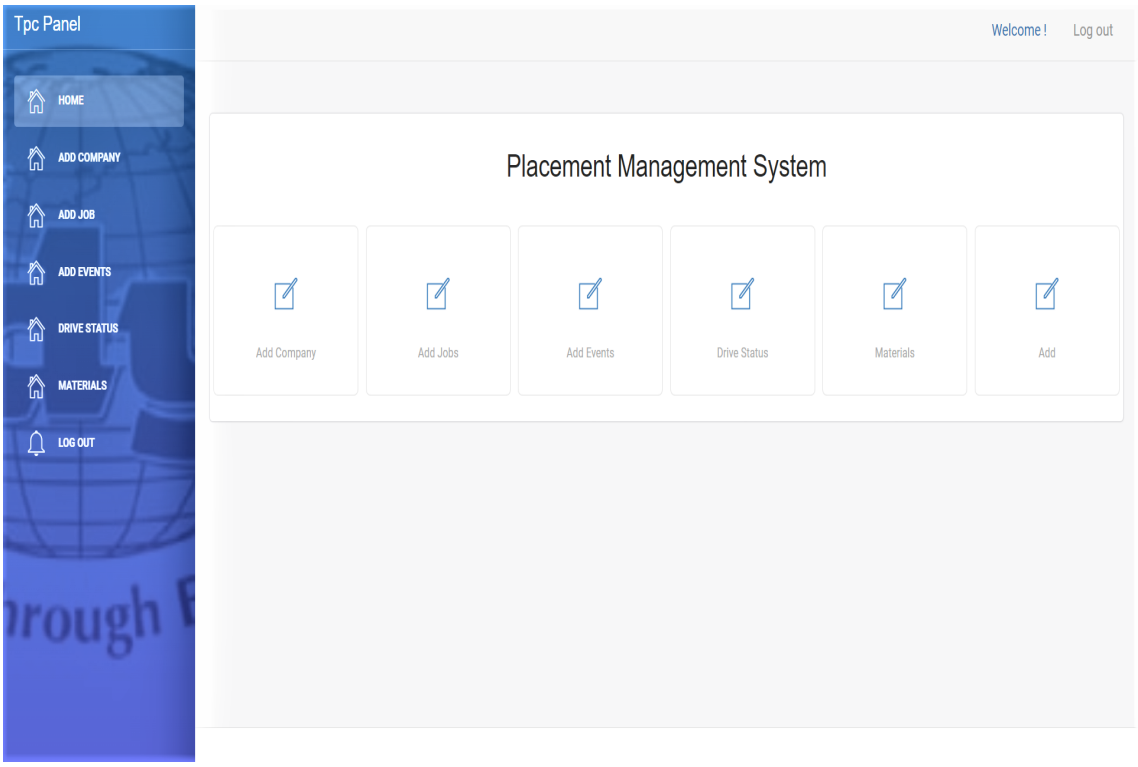

Figure 8.6: TPC Home Page

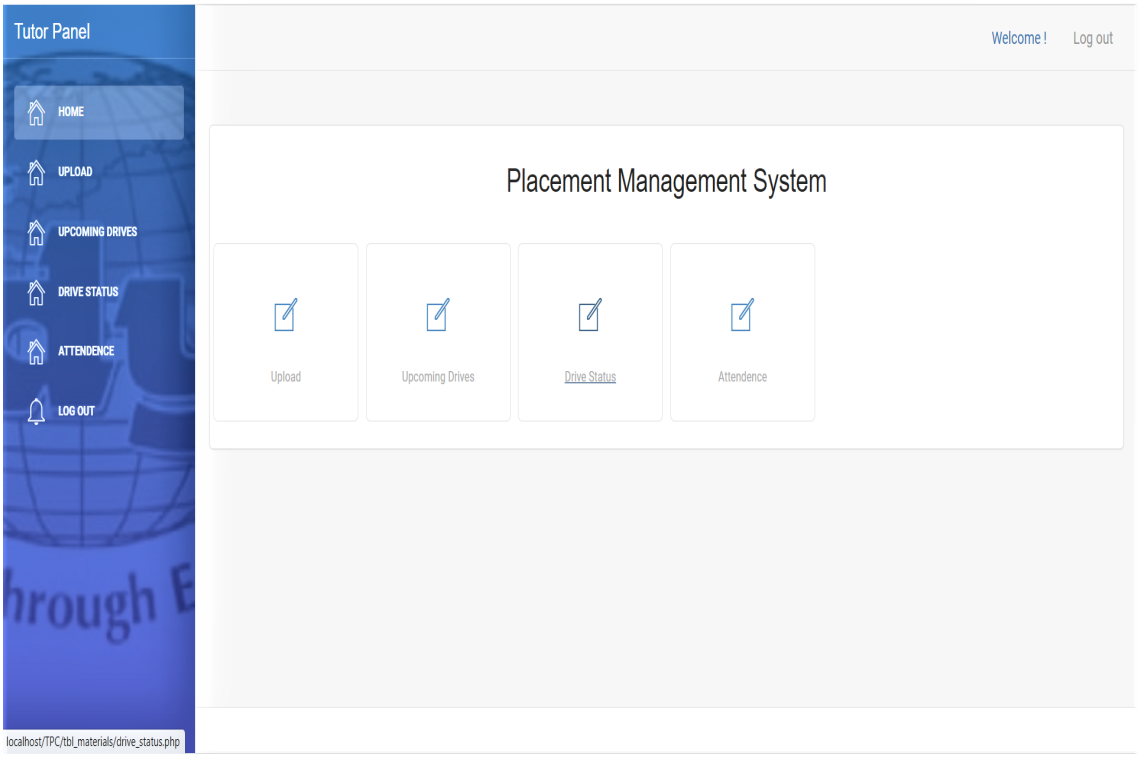

Figure 8.7: Tutor Home Page

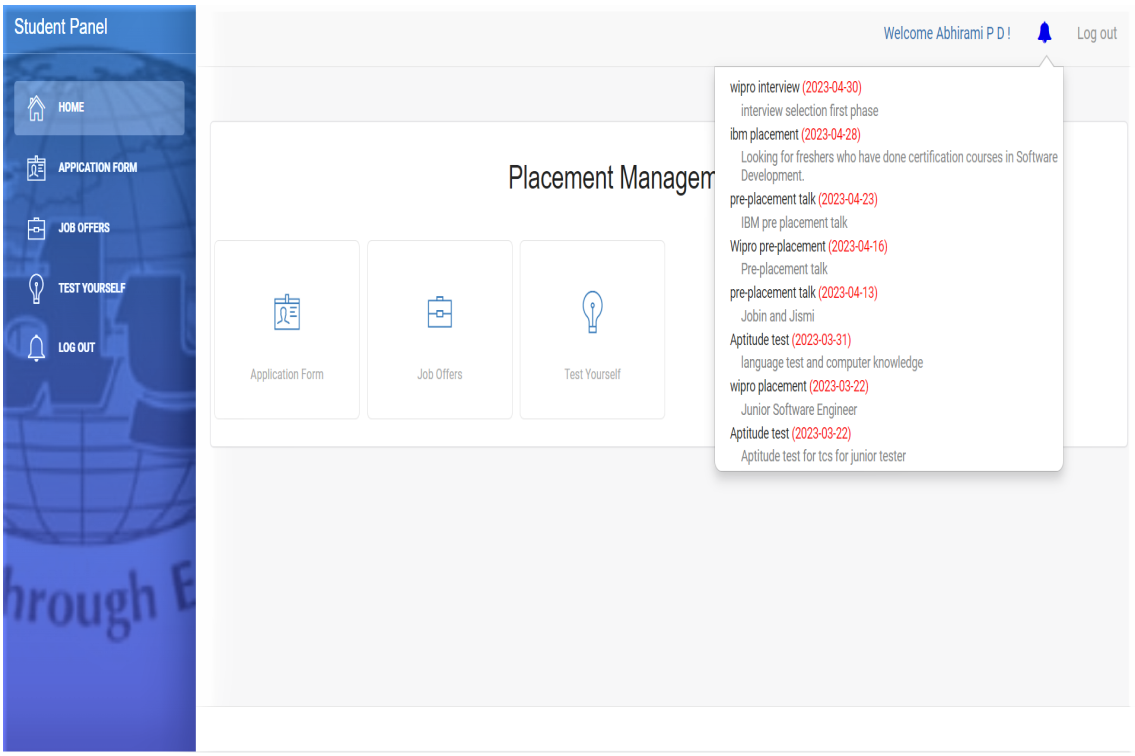

Figure 8.8: Notification Page

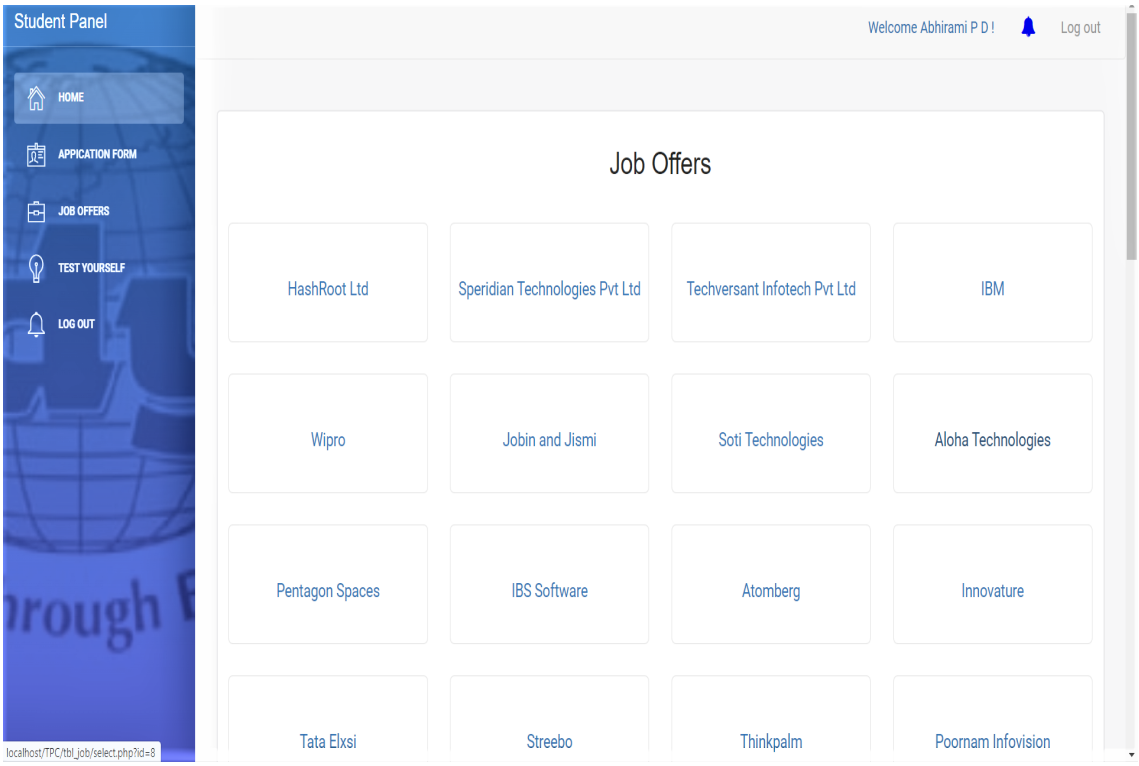

Figure 8.9: Job Offer Page

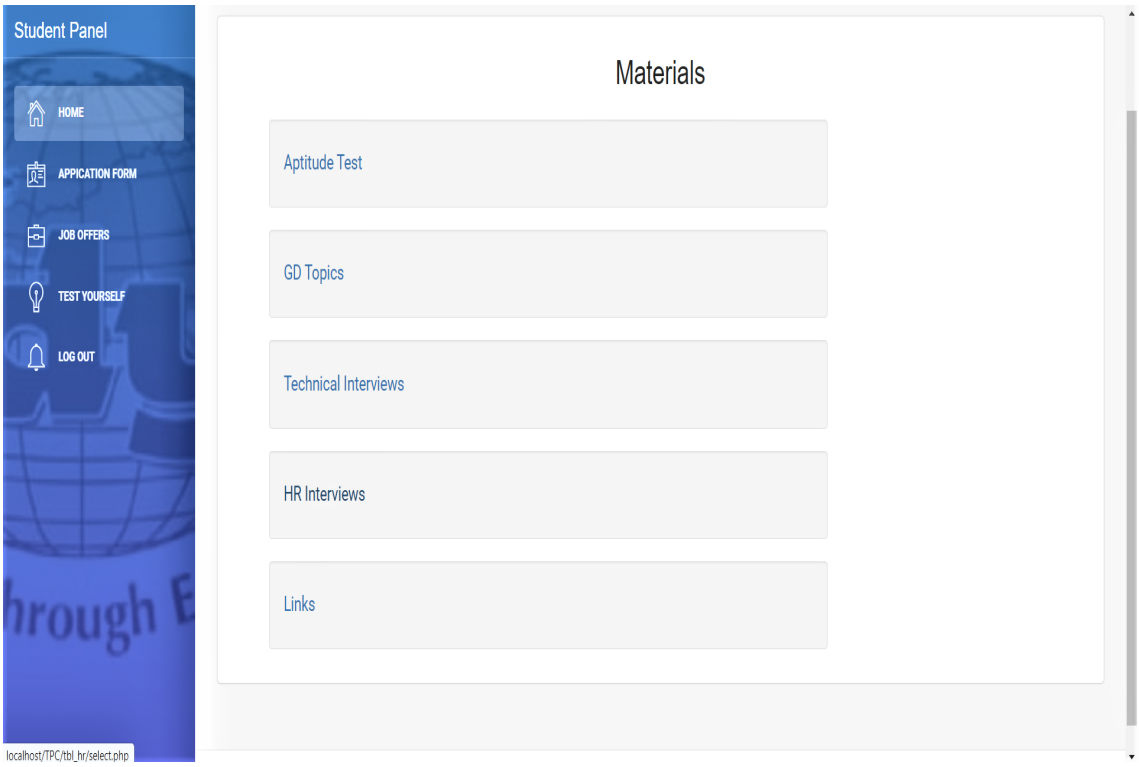

Figure 8.10: Materials Page

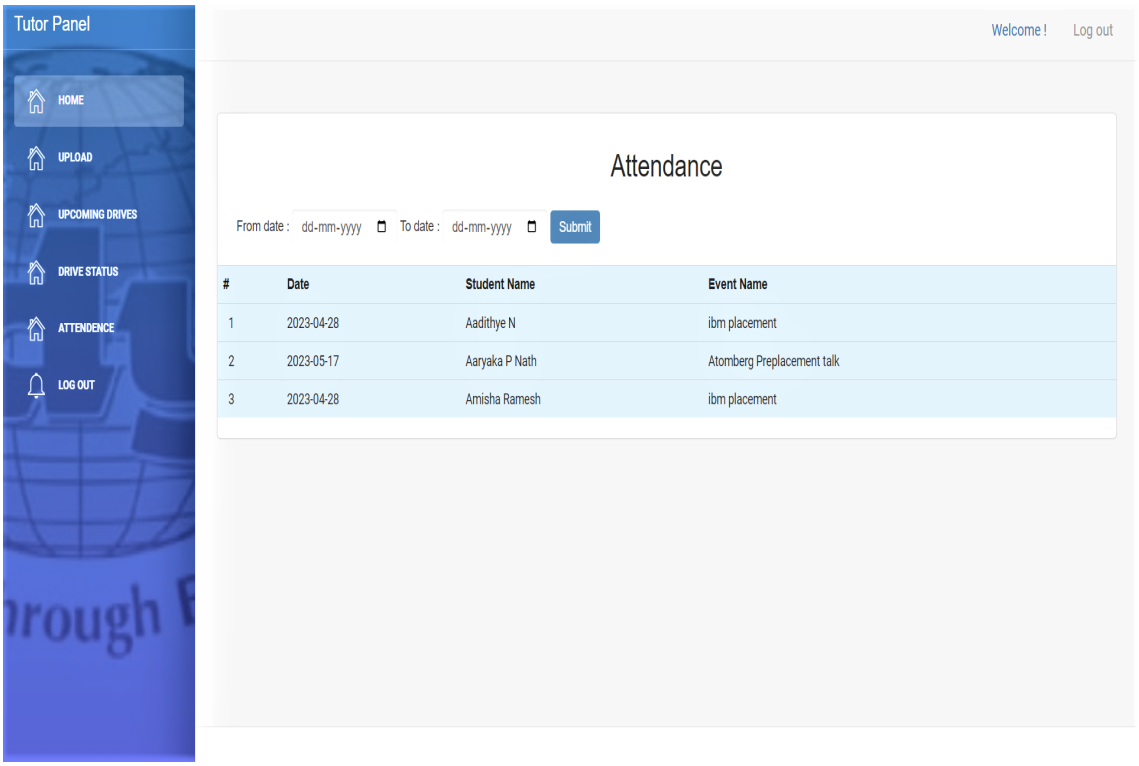

Figure 8.11: Attendance page

Chapter 9

CONCLUSION

In the existing system mostly, work was done manually and also it is error prone system, takes time if we want to change the information in the system. The biggest issue was when we are required to make the changes to the huge amount of data and managing them. The proper notification was not given to the student regarding the new activities arises related to company. The proposed system gives the automation in all the process like updating of details related to students or company, for obtaining the list of eligible students based on company criteria, registration for the drives and of the drives. This proposed system provides all the solution to the existing system problem.

This project is aimed at developing web application training and placement cell for automating the manual task of TPC of the college to eliminate the errors which used to arises because of manual work. The problem definition of this project is successfully completed by reducing the manual activity by using web application for training and placement cell where all the data related to the student and company database is managed in an efficient manner.

Creating ease in the recruitment process is major aim. Also provides facility for students to attend practice test. System is a good and user-friendly application for TPC to use as well as the users. This will ensure a smooth and less error prone training and placements in institutes.

Chapter 10

FUTURE SCOPE

- In the future we can give more advanced software for placement management system including more facilities. We can modify the project with a far better approach with more graphics. The backup procedure can be comprised to make sure of the database integrity.
- We can add different features like a direct messaging chat between the company and the student, which provides a convenient way of interaction between students and companies.And also we can add Chatbot for clarifying our doubts.
- Linking this system with the college ERP system will help tutors to provide attendance much easily.
- Coding questions can also be provided for students for technical practise.
- Other features like analytics can be added in future to this portal for tracking the progress of student in specific areas. After analysis this system will notify students of the areas they are lacking in.

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