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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

TPO ASSISTANT
Minor Project Report

Semester-6

Submitted by:

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Under the Guidance of
Prof. Deepak Singh Tomar
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
Session: 2020-2021

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CERTIFICATE

This is to certify that the project report carried out on “**TPO ASSISTANT**” by
the 3rd year students:

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Have successfully completed their project in partial fulfillment of their Degree
in Bachelor of Technology in Computer Science and Engineering.

PROF. DEEPAK SINGH TOMAR
(Minor Project Mentor)

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BHOPAL, INDIA, 462003



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

DECLARATION

We, hereby declare that the following report which is being presented in the Minor Project Documentation Entitled as “**TPO ASSISTANT**” is an authentic documentation of our own original work and to best of our knowledge. The following project and its report, in part or whole, has not been presented or submitted by us for any purpose in any other institute or organization. Any contribution made to the research by others, with whom we have worked at Maulana Azad National Institute of Technology, Bhopal or elsewhere, is explicitly acknowledged in the report.

Submitted by:

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ACKNOWLEDGEMENT

With due respect, we express our deep sense of gratitude to our respected guide and coordinator Prof. Deepak Singh Tomar, for his valuable help and guidance. We are thankful for the encouragement that he has given us in completing this project successfully.

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We are also grateful to our respected director Dr. N.

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We are also thankful to all the other faculty, staff members and laboratory attendants of our department for their kind cooperation and help. Last but certainly not the least, we would like to express our deep appreciation towards our family members and batch mates for providing the much-needed support and encouragement.

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1. ABSTRACT

TPO Assistant, abbreviated as TA is Web based college placement System. This is capitalizing on the fact of faster and effective communication between students and companies.

In this rapidly growing world using WhatsApp for placement communication seems a lot outdated. This project is aimed at developing an online application for the Training and Placement Cell of the college. The system is an online application that can be accessed throughout the organization and outside as well with proper login provided. This system can be used as an application for the Training and Placement Officers (TPO) of the college to manage the student information with regards to placement.

Student's logging should be able to upload their information in the form of a CV and be able to apply in company with one click rather than filling information independently for various companies. They can generate various reports by using filtering. Like some companies visiting the campus for placements, Statistics of the previous year's placements and Current Placement scenario etc.

2. INTRODUCTION

A web application or "web app" is a software program that runs on a web server. Unlike traditional desktop applications, which are launched by your operating system, web apps must be accessed through a web browser. Web apps have several advantages over desktop applications. Since they run inside web browsers, developers do not need to develop web apps for multiple platforms. A web application is any application that uses a web browser as a client. The application can be as simple as a message board or a guest sign-in book on a website, or as complex as a word processor or a spreadsheet. The Benefits of a Web Application is it relieves the developer of the responsibility of building a client for a specific type of computer or a specific operating system. The project is developed on the basis of Placement Cell being presently used in the college for storing and retrieving the information of students and companies who are registered in Placement Cell. The Placement Activity System provides the facility of maintaining the details of the students. It also provides a requested list of candidates to recruit the students based on given query. Administrator logging in may also search any information put up by the students. This project will aid colleges to practice full IT deployment. This will also help in fast access procedures in placement related activities. The current placement system has very tedious and takes more time for processing because most of the works are done manually. In Various colleges, training and placement officers have to manage the student's profile and documents of students for their training and placement manually. Placement Officer has to collect the information of various companies who want to recruit students and notify students time to time about them. Placement Officer has to arrange profiles of students according to various streams and notify them according to company requirements. If any modifications or updates are required in the profile of any student, it has to search and to be done it manually. The objective of this PAS automates the process of college placement activities by providing the online application. This application will eliminate most of the manual activities of the current placement system. Helps the Jobseekers to know about the job vacancy and other Company requirements enable the placement officer to make filtering of profiles based on company's requirement Maintain the student's information and curriculum vitae.

2.1 Objective

- Computers and information technology has a major influence on the society and the society is becoming more and more dependent on technology. Going on is an era of simplifying almost all complicated works using computers.
- Our aim is to eliminate the manual activities of the college placement cell so that they can complete work efficiently as it helps in maintaining student information and their Curriculum Vitae very effectively. Thus, eliminating human error.
- The goal is also to ease the filtering of student profiles based on the company's requirement.
- Making the circulation of information easy for the placement cell and there is no scope for delay or missing out on important news.
- Students can get to know about the vacancy and company requirement details in their login online .
- Keeping track of student placements to better know the yearly performance in a well-documented manner.

3. LITERATURE SURVEY

Considering our project idea, it was better to use php over other technology because tools, features and code snippets provided by php framework help us to accelerate custom web application development. Also, most php framework allow us to select the relational database of our choice.

3.1. TOOLS AND TECHNOLOGY USED

- **HTML (Hyper Text Markup Language)**

The Hyper Text 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 and scripting languages such as JavaScript.

- **CSS (Cascading style Sheet)**

Cascading Style Sheets is a style sheet language used for describing the presentation of a document written in a markup language such as HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.

- **JS (JavaScript)**

JavaScript, often abbreviated as JS, is a programming language that conforms to the ECMAScript specification. JavaScript is high-level, often just-in-time compiled, and multi-paradigm. It has curly-bracket syntax, dynamic typing, prototype-based object-orientation, and first-class functions.

- **Chrome Dev Tools**

Chrome Dev Tools is a set of web developer tools built directly into the Google Chrome browser. Dev Tools can help you edit pages on-the-fly and diagnose problems quickly, which ultimately helps you build better websites, faster.

- **PHP**

PHP is a recursive acronym for "PHP: Hypertext Pre-processor". PHP is a server-side scripting language that is embedded in HTML. It is used to manage dynamic content, databases, session tracking, even build entire e-commerce sites. It is integrated with a number of popular databases, including MySQL, PostgreSQL, Oracle, Sybase, Informix, and Microsoft SQL Server. PHP is pleasingly zippy in its execution, especially when compiled as an Apache module on the Unix side. The MySQL server, once started, executes even very complex queries with huge result sets in record-setting time. PHP added support for Java and distributed object architectures. PHP is forgiving: PHP language tries to be as forgiving as possible. PHP Syntax is C-Like.

- **MySQL**

A database is a structured collection of data. To add, access, and process data stored in a computer database, you need a database management system such as MySQL Server. Since computers are very good at handling large amounts of data, database management systems play a central role in computing, as standalone utilities, or as parts of other applications.

- **Server: XAMPP**

XAMPP is a free and open-source cross-platform web server solution stack package developed by Apache Friends, consisting mainly of the Apache HTTP Server, MariaDB database, and interpreters for scripts written in the PHP and Perl programming languages.

3.2 Gaps Identified

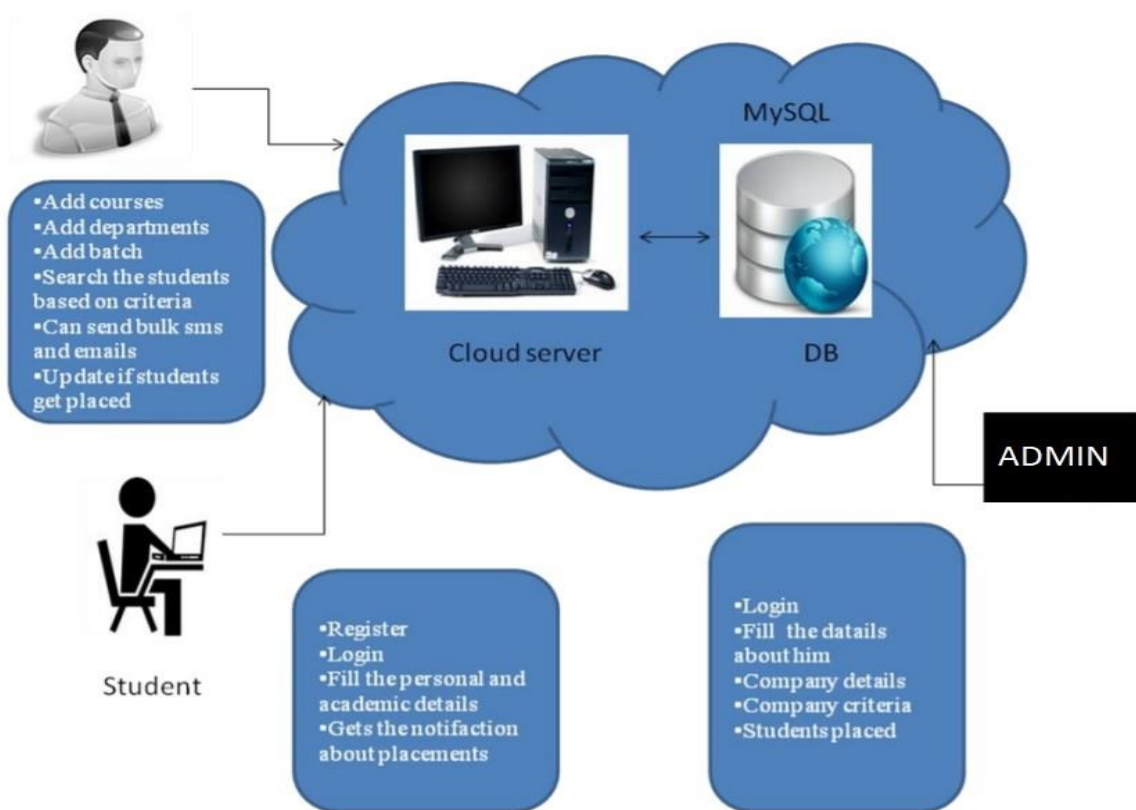
The present system of informing students regarding a company works in a hierarchical manner in which Placement heads convey message to (Training & Placement cell) students head, they further convey it to Class Representative (CR) of every branch and CR conveys to student. This system has certain gaps as follows:

- Involves more manual work of typing and forwarding messages from one to other.
- Human errors are highly possible while writing messages which lead to false information.
- Every individual takes its own time to complete its specific task and many times the circular and information do not reach among the students on time
- Excess work for mediators. E.g., Class representative and TPO's have to clear same query to different students individually.
- Students keep updating their information and resume which is not possible in present system because TPO cell ask for resume once in year.
- Students have to fill same information for different companies again and again while applying in the company.
- Aluminic record: past records of students are very difficult to manage

4.PROPOSED WORK

The proposed Online Training and Placement System management system meant to give more easiness to the users that they can add and retrieve information so quickly.

There are mainly two types of users they are student and company

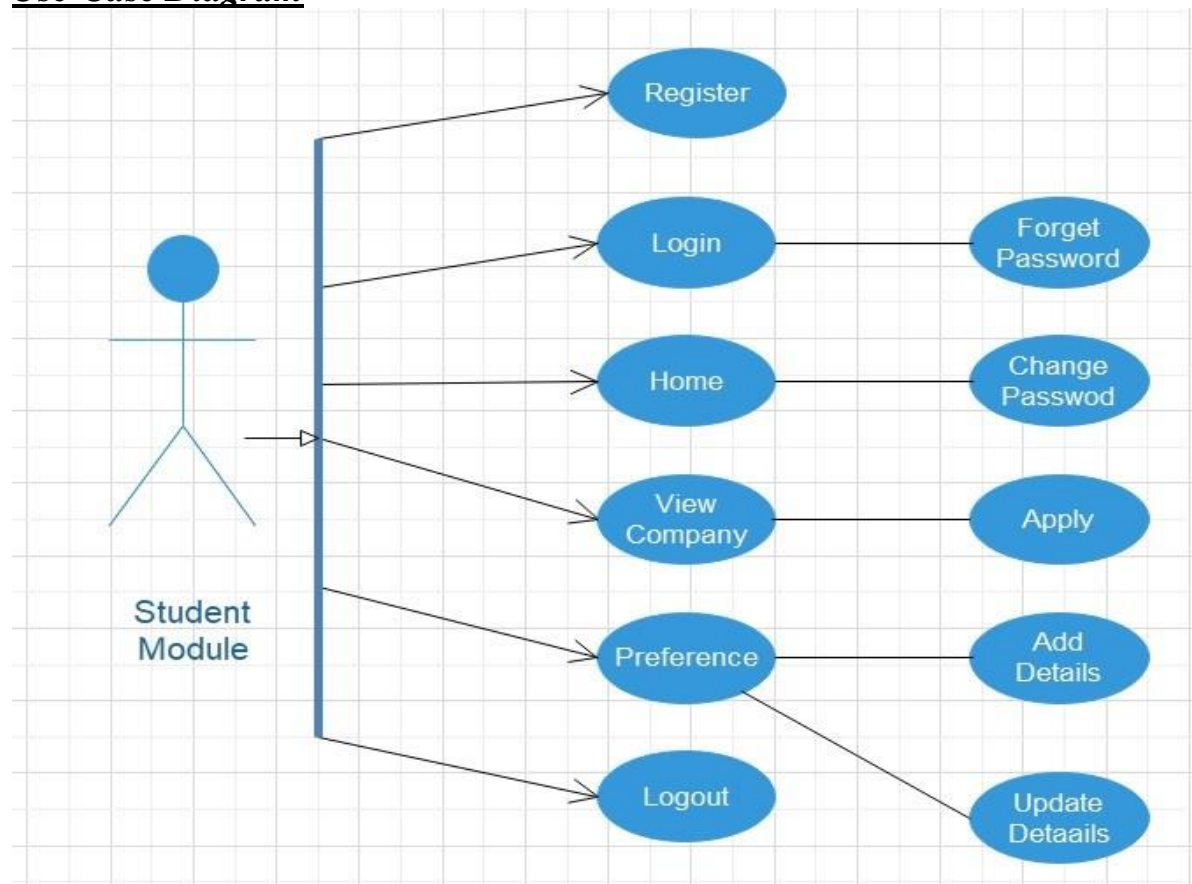


4.1 Student Module

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, USN, course, email, mobile number and password. 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.

After that student can check the company visiting the campus and can apply to them according to the criteria and his/her convenience. A student can apply in company just by using company id in apply section.

Use-Case Diagram



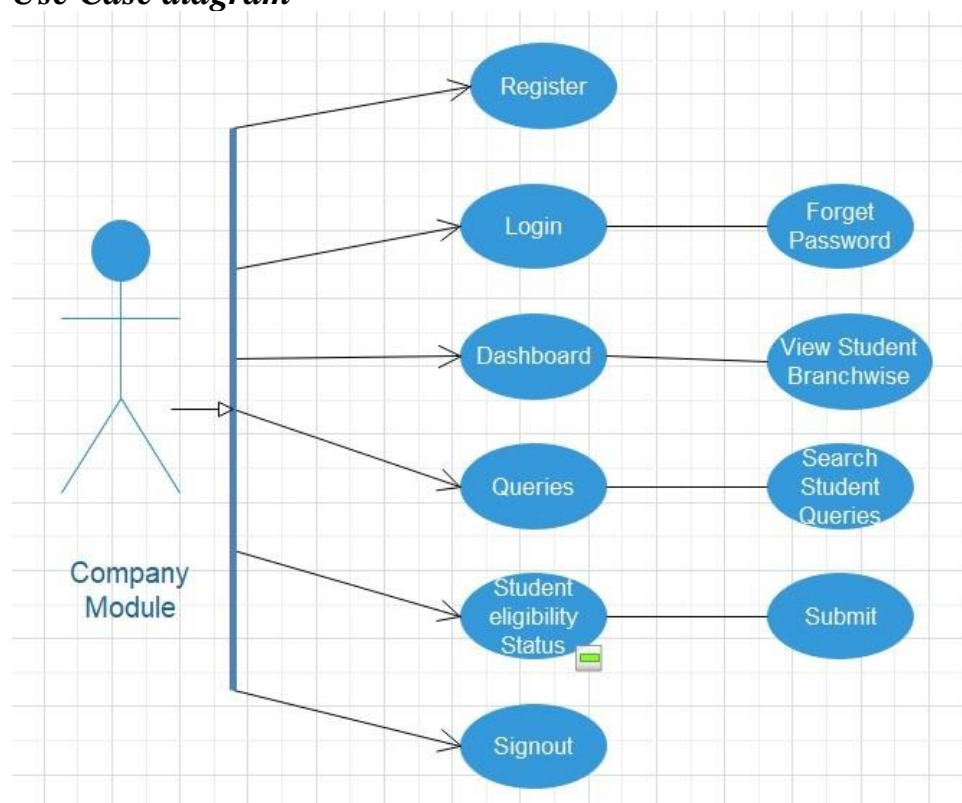
4.2 Company Module

The training and placement officer can also login to the placement login section through the username and password assigned for a particular company by creating its profile. After login, the company will be able to see the data of all those students who applied in their company for the different positions they have been offering plus they can send notifications about number of jobs offering and also, they will offer internships for students. The placement login can also filter out those students who do not match their placement criteria.

The criteria status can be selected on each and every data of the students.

It also provides a query system to select a few students from the list for example we can select students of only “CSE” branch by using the query feature. This information can be retrieved directly from the system thus providing all the tools required at one place.

















Use Case diagram



4.3 Database Collection

All information about the students like Name, Scholar number, semester marks, percentage, contact number, address, E-mail address are collected and stored in a database by the placement officials. The administrator and authenticated user alone can alter the data in the database. The placement officer collects and stores all company profiles with student requirement. Placement officials are the responsible for altering the information in the database regarding the company details. The company information includes the company name, company address, job description, requirement of students, contact and Email address.

S-login

Options			id	Name	USN	PASSWORD	Email
			12	Dev Goyal	181112081	123456	devgoyal2028@gmail.com
			13	hrishi	181112023	123456	henga@gmail.com
			14	naman khandelwal	181112035	123456	naman@gmail.com
			15	archit kuhar	181112105	123456	archit@gmail.com
			16	Sachin	181112037	123456	tau@gmail.com
			17	Harsh Bansal	181112214	123456	harsh@gmail.com

Basic Details

Options																
<input type="checkbox"/>	Edit	Copy	Delete	15	Dev	Goyal	181112081	9518096664	devgoyal2028@gmail.com	1999-05-28	3	CSE	90	90	90	0
<input type="checkbox"/>	Edit	Copy	Delete	16	hrishi	harsh	181112023	9100000000	henga@gmail.com	1999-02-02	5	CSE	50	50	50	0
<input type="checkbox"/>	Edit	Copy	Delete	17	naman	khandelwal	181112035	5454545454	naman@gmail.com	1999-02-02	5	CSE	80	50	4	0
<input type="checkbox"/>	Edit	Copy	Delete	18	sachin	gupta	181112037	9595959595	tau@gmail.com	1999-02-02	5	mech	90	90	90	0
<input type="checkbox"/>	Edit	Copy	Delete	19	Harsh	Bansal	181112214	9119215735	harsh@gmail.com	1997-12-31	6	civil	90	90	90	0

☐ Check all With selected: Edit Copy Delete Export

☐ Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

5. METHODOLOGY

The term methodology has different meanings ranging from the conversion of a basic application to a complete replacement of a computer system. The procedures however, are virtually the same. Implementation includes all those activities that take place to convert from old systems to new. The new system may be totally new replacing an existing manual or automated system or it may be major modification to an existing system. The method of implementation and time scale to be adopted is found out initially. Near the system is test properly and at the same time, the users are trained in the new procedure. Proper implementation is essential to provide a reliable system to meet organization requirement.

The proposed system is fully computerized, which removes all the drawbacks of existing system. Proposed system is an online application that can be accessed throughout the organization and outside as well with proper login provided. Student's logging should be able to upload their information in the form of a CV.

When the user entered into his respective page, he has to update his details. And the details are to be approved by the administrator. All the users have some common services like changing password, updating details, searching for details, checking the details and reading the material uploaded by admin if the user is a student. Administrator has to do the services like adding events He can upload materials, search for student details, and he has the right to approve the students.

Advantages Of the Proposed System:

Placement officer can easily collect student' details, and approve the details provided by them.

As it is an online application, communication with placement officer is easy to students and recruiters, so here intimating about new placements very easy task. Here recruiters can also search for the details provided by students on the basis of their percentage.

Placement officer can send required materials used for placements preparation to students.

With this option preparation for placements becomes easy.

Creating a session and connecting database in php to Login inside the portal.

```
1 <?php
2 session_start();
3 $username = $_POST['username'];
4 $password = $_POST['password'];
5
6 if ($username&&$password)
7 {
8     $connect = mysqli_connect("localhost","root","","project") or die("Couldn't Connect");
9     // mysqli_select_db("placement") or die("Cant find DB");
10    $query = mysqli_query($connect,"SELECT * FROM slogin WHERE USN='$username'");
11
12    $numrows = mysqli_num_rows($query);
13
14    if ($numrows!=0)
15    {
16        while($row = mysqli_fetch_assoc($query))
17        {
18            $dbusername = $row['USN'];
19            $dbpassword = $row['PASSWORD'];
20
21        }
22        if ($username==$dbusername&& $password==$dbpassword)
23        {
24            echo "<center>Login Successfull..!! <br/>Redirecting you to HomePage! </br>If not Goto <a href='index.php'> Here </a></center>";
25            echo "<meta http-equiv='refresh' content = '3; url=index.php'>";
26            $_SESSION['username'] = $username;
27            //$_SESSION['Name'] = mysql_query("SELECT Name FROM slogin WHERE USN='$username'");
28        } else{
29            $message = "Username and/or Password incorrect.";
30            echo "<script type='text/javascript'>alert('$message');</script>";
31            echo "<center>Redirecting you back to Login Page! If not Goto <a href='index.php'> Here </a></center>";
32            echo "<meta http-equiv='refresh' content = '1; url=index.php'>";
33        }
34    }
35    }else
36    {
37        die("User not exist");
38    }
39    }
40    else
41    {
42        die("Please enter USN and Password");
43    }
44    ?>
```

Some important functions:

- **session_start()**: A session is started with the **session_start()** function. Session variables are set with the PHP global variable: `$_SESSION`. The **session_start()** function must be the very first thing in your document.
- **Mysqli_connect()**: `mysqli_connect(host, username, password, dbname, port, socket)`

The **mysqli_connect()** function attempts to open a connection to the MySQL Server running on host which can be either a host name or an IP address.

- **Mysqli_query()**: `mysqli_query(connection, query, resultmode)`

The **mysqli_query()** function performs a query against a database.

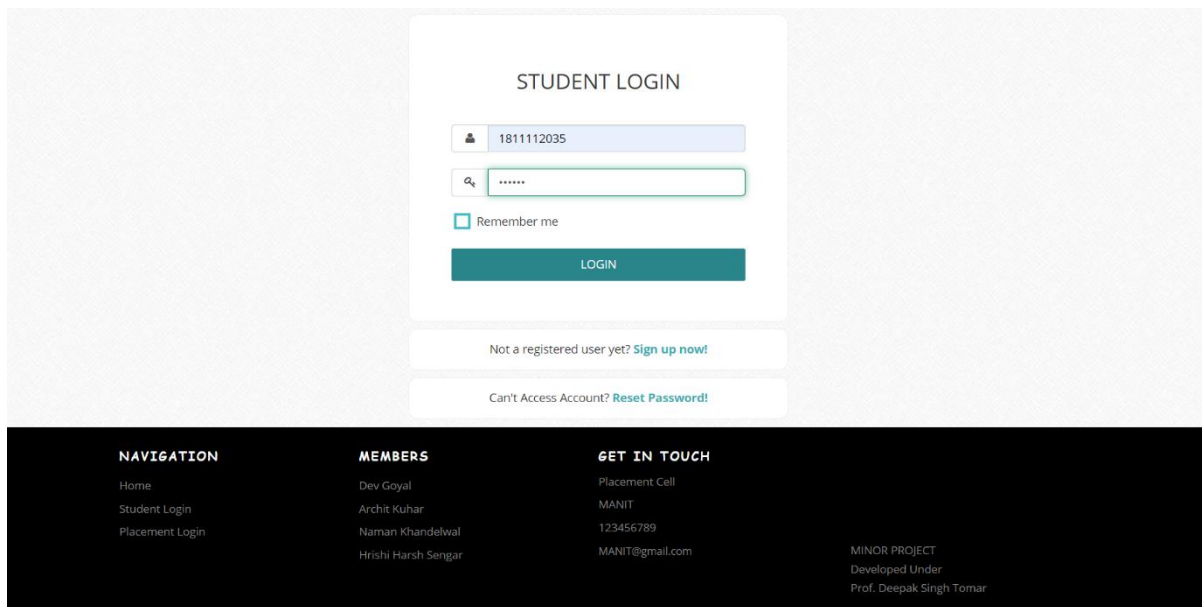
- **Mysqli_fetch_assoc()**: `mysqli_fetch_assoc(result)` The **mysqli_fetch_assoc() function** is used to return an associative array representing the next row in the result set for the result represented by the result parameter, where each key in the array represents the name of one of the result set's columns

6. RESULT

GITHUB LINK: <https://github.com/Devgoyal2808/TPO-Assistant/tree/master>

The login page of the online training and placement management system is shown. The student can login to the system by using this login form

Student login Page



STUDENT LOGIN

1811112035

.....

☐ Remember me

LOGIN

Not a registered user yet? [Sign up now!](#)

Can't Access Account? [Reset Password!](#)

NAVIGATION

Home

Student Login

Placement Login

MEMBERS

Dev Goyal

Archiit Kuhar

Naman Khandelwal

Hrishi Harsh Sengar

GET IN TOUCH

Placement Cell

MANIT

123456789

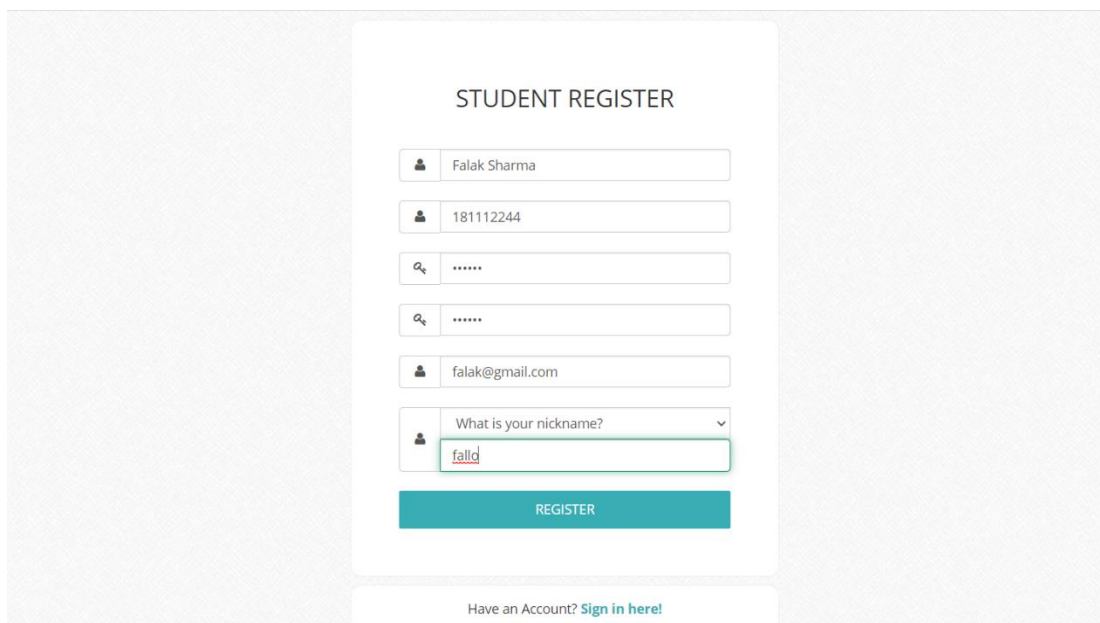
MANIT@gmail.com

MINOR PROJECT

Developed Under

Prof. Deepak Singh Tomar

Student Register Page- The student can register to the system by using this form



STUDENT REGISTER

Falak Sharma

181112244

.....

.....

falak@gmail.com

What is your nickname?


falld

REGISTER

Have an Account? [Sign in here!](#)

Student Dashboard

WELCOME
181112035



DASHBOARD

MANAGE COMPANIES

PREFERENCES

SIGN OUT

HOME PAGE

CHANGE PASSWORD

naman khandelwal

Email : naman@gmail.com


Branch : CSE

Semester : 5

✕

ASSIGNED PROJECTS

PROJECTS (BETA)




✕


ACADEMICS PROGRESS

GRADES OF PROGRESS

✕


 LATEST DRIVE

✕

 UPCOMMING EVENTS

✕

Update your Details



DASHBOARD

MANAGE COMPANIES

PREFERENCES

SIGN OUT

Preferences

Update Your Details

First Name

Ram

Scholar Number

Scholar Number

Email

abc@example.com

Current Semester

Semester

SSLC/10th Aggregate

BE Aggregate

History of Backlogs

Y/N

Last Name

Laxman

Phone:

91xxxxxxxx

Date of Birth

dd-mm-yyyy

Branch of Study

Branch

12th/Diploma Aggregate

Current Backlogs

Numbers


Detained Years

Years

Upload your Profile Pic

Company Dashboard

WELCOME
SAMSUNG



DASHBOARD

QUERIES

STUDENTS ELIGIBILITY STATUS

SIGN OUT

HOME | CHANGE PASSWORD

VIEW BRANCHWISE

First Name	Last Name	Sch No	Mobile	Email	DOB	Sem	Branch	10th	12th	CGPA	Backlogs	History Of Backlogs
hrishi	henga	181112023	9100000000	henga@gmail.com	1999-02-02	5	CSE	50	50	50	0	0
Dev	Goyal	181112081	9518096664	devgoyal2028@gmail.com	1999-05-28	3	CSE	90	90	90	0	0

View Branch wise by company



- [Chemical](#)
- [CSE](#)
- [ECE](#)
- [EE](#)
- [Architecture](#)
- [Mech](#)
- [Civil](#)

After selecting branch CSE

Approved Students List of CSE

First Name	Last Name	Scholar Number	Mobile	Email	DOB	Sem	Branch	SSLC	PU/Dip	BE	Backlogs	History Of Backlogs	Detain Years
Dev	Goyal	181112081	9518096664	devgoyal2028@gmail.com	1999-05-28	3	CSE	90	90	90	0	0	0
hrishi	henga	181112023	9100000000	henga@gmail.com	1999-02-02	5	CSE	50	50	50	0	0	0
naman	khandelwal	181112035	5454545454	naman@gmail.com	1999-02-02	5	CSE	80	50	4	0	0	0

Specific filtration by company

Student Name :

Student USN :

Semister Wise :

Branch :

SSLC :

PU/Diploma :

BE Aggregate :

After searching by eg USN: 181112081

First Name :Dev
Last Name :Goyal
USN :181112081
Mobile :9518096664
Email :devgoyal2028@gmail.com
DOB :1999-05-28
Semister :3
Branch :CSE
SSLC Percentage :90
PU/Diploma Percentage :90
BE Aggregate :90
Current Backlogs :0
History of Backlogs :0
Detain Years :0

Student Eligibility filter by company:

ELIGIBILITY CRITERIA

Branch of Study

Branch

SSLC/10th Aggregate

12th/Diploma Aggregate

BE Aggregate

Current Backlogs

Numbers

History of Backlogs

Y/N

Detain Years

Years

SUBMIT

RESET

5. CONCLUSION

In the current existing system almost all of the work is done manually and thus, this system is filled with errors and takes a lot of time for any changes in the data errors. The biggest problem is that there is no single individual handling the data and thus for every error in data a lot of people have to be contacted just to rectify a single mistake. Also, there is no notification method available for giving information to student except the messages that are posted occasionally in the class groups. The proposed online training and placement management system gives the control of data to a few users which can manipulate the data regarding the companies only as the student is responsible for their own data which can be easily updated using the new proposed system and all the applying processes are automated and is the same for every company visiting the campus removing the need to create google forms for every company which is a hassle for the placement and training cell as the creating these forms are different at times and thus the data is handled by them only making it prone to the risk of tampering and data loss. Since the data is filled only once it removes the chances of error and thus making it easy and fast for students to apply for placements. It provides the detail solution to the existing system problem

6. FUTURE SCOPE

- It can be extended to platforms like android, IOS etc.
- It can be linked to student's portal from MANIT site.
- It can be extended to co-ordinate with class Time Table for both students and teachers differently.
- A message board can be added to dash board of student login which can display upcoming events and also the recruitment process for the students who have been selected.
- An experience panel can be introduced where senior students can share their interview experience, questions, topics as post which will be visible to everyone.

7. REFERENCES

1. Java Script: <https://devdocs.io/javascript/>
2. MySQL: <https://dev.mysql.com/doc/>
- 3.PHP: <https://www.w3schools.com/php/DEFAULT.asp> ,
<https://www.php.net/docs.php>
4. HTML, CSS: <https://www.w3schools.com/default.asp>