PLACEMENT PORTAL MANAGEMENT SYSTEM

A PROJECT REPORT

Submitted as a Jth Component for the course

DATABASE MANAGEMENT SYSTEM (CSE 2004)

B. Tech (CSE)

By

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JUNE 2021

WINTER 2020-21

DECLARATION BY THE CANDIDATE

I hereby declare that the project report entitled **"PLACEMENT PORTAL MANAGEMENT SYSEM"** submitted by me to VIT University, Vellore in partial fulfillment of the requirement for the award of the degree of **B.Tech (Computer Science and Engineering)** is a record of Jth component of project work carried out by me under the guidance of **Prof. P.Prabhavathy**. I further declare that the work reported in this project has not been submitted and will not be submitted, either in part or in full, for the award of any other degree or diploma in this institute or any other institute or university.

Place: Vellore

Date: 5th June 2021

Signature of the Candidate

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CHAPTER 1
INTRODUCTION

1.1 Introductory Remarks:

The use of the Internet and the World Wide Web revolutionized the delivery of information as well as the ability of the user to act on the information obtained. Given that the automated system now needs a day, educational facilities such as colleges needed them manual system to operate on a computer system. The automation of placement for campus recruitment is one of these systems of great importance. The placement management system supports training and placement officials, on the basis of different criteria of eligibility of different companies, in overcoming the problems of record keeping hundreds and thousands of students and searching for eligible students for recruitment. It helps to use hardware and software effectively and efficiently. It automates training and placement cell activities, allows students to use collective intelligence to increase selection ratios, and automates the process of creating management information.

Our project is the website implementation of **Placement Portal Management System** considering the university scenario where around 1000 students graduate each year and around 100-150 companies come each year for hiring students, it becomes very difficult to manage everything.

SCOPE AND AVAILABILITY

The project was started with the idea to adapt the uncommon pandemic situation for job application conditions and help both employer and job seekers to get a way for interaction for jobs. The scope of this project entails creating an online portal for college placements that can be easily managed and used by users efficiently and without error. From the idea to its implementation, we walk through different existing approach and pointing out their pros and cos and accordingly tries to improve ours. It might be able to become a better replacement to the existing manual trend of placement concepts as well as time efficient. It includes the majority of the features that a Database Management System should include. The system will be implemented in the backend with MySQL and PHP, and in the frontend with HTML, CSS, and Bootstrap.

CHAPTER 2

SYSTEM DESIGN (ER-model)

Placement Portal Management System
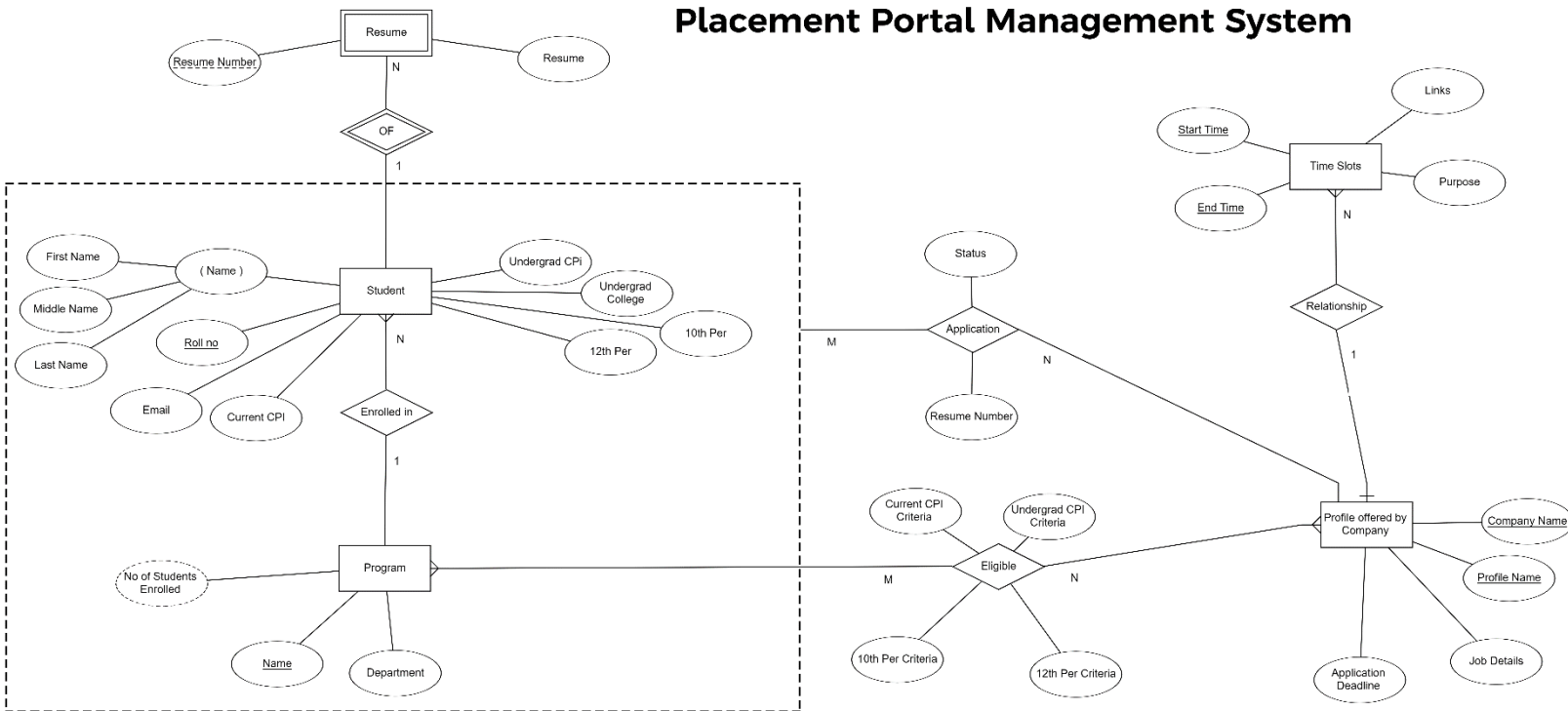
2.1 Framework

HTML/CSS: HTML and CSS are used for designing the frontend of the application.

BOOTSTRAP: Bootstrap is a CSS framework directed at responsive, mobile-first front-end web development. It contains CSS and JavaScript-based design templates for typography, forms, buttons, navigation, and other interface components.

PHP: PHP is a general-purpose scripting language. We have used PHP in our backend. We have used it to connect the frontend to the database.
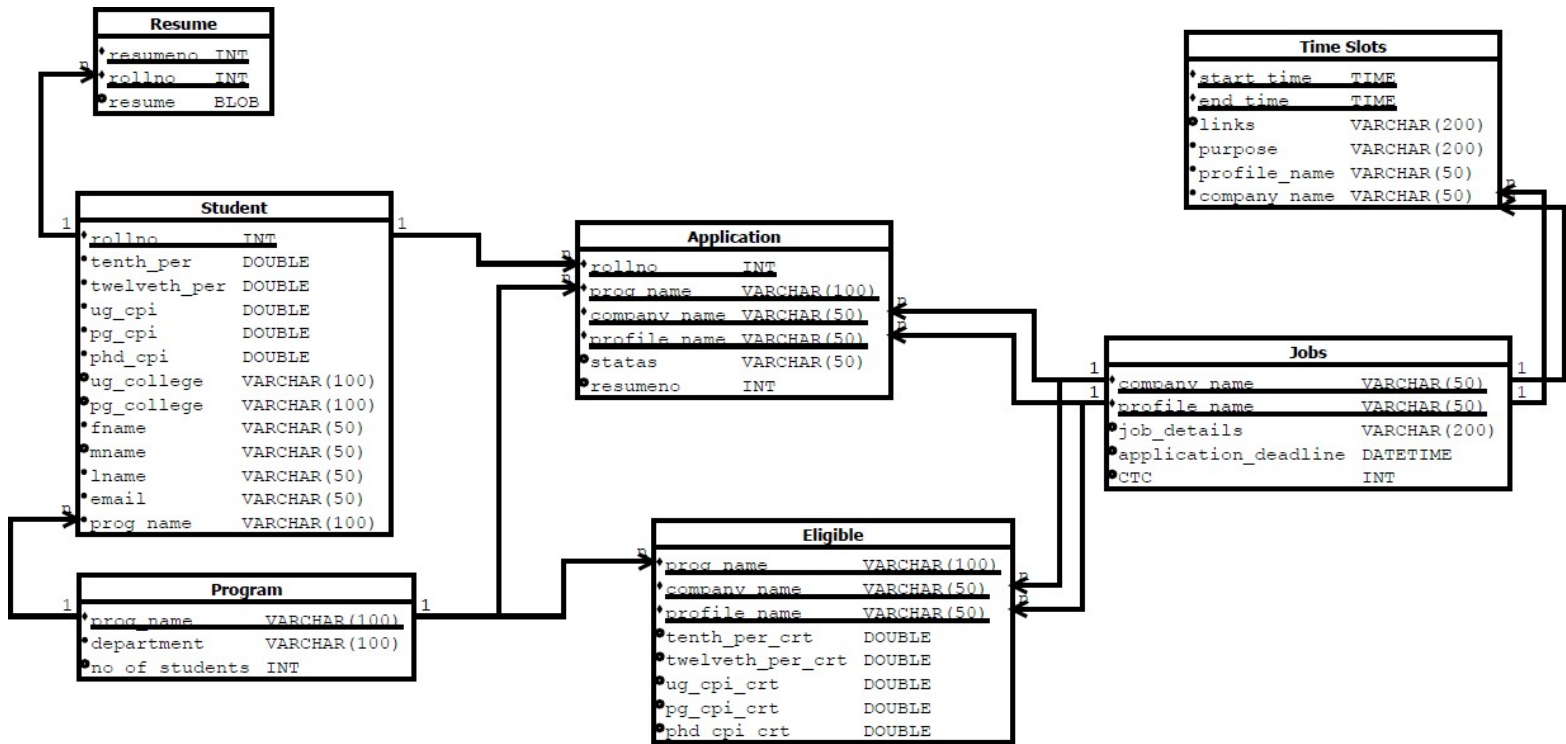
MySQL: We have used MySQL for database implementation.

XAMPP: To host the website on our local machines, we have used XAMPP forsetting up the server.

CHAPTER 3

SYSTEM IMPLEMENTATION (ER to Relational Model)

3.1 Mapping ER-Relation Schema

3.2 Storing database at backend.

Mysql database was used for backend data storage in our project. **Xampp** platform used in the development made it easier to use **Mysql** database along with our backend technology of PHP. Data was stored in backend in the form of various tables as shown above in the entity relation mapping diagram.

Following are the tables created in our database:

Table	Action						Rows	Type	Collation	Size	Overhead
☐ application	⭐	📋 Browse	🔧 Structure	🔍 Search	➕ Insert	🗑 Empty	⊘ Drop	19	InnoDB	utf8mb4_general_ci	48.0 KiB	-
☐ eligible	⭐	📋 Browse	🔧 Structure	🔍 Search	➕ Insert	🗑 Empty	⊘ Drop	16	InnoDB	utf8mb4_general_ci	32.0 KiB	-
☐ jobs	⭐	📋 Browse	🔧 Structure	🔍 Search	➕ Insert	🗑 Empty	⊘ Drop	7	InnoDB	utf8mb4_general_ci	16.0 KiB	-
☐ program	⭐	📋 Browse	🔧 Structure	🔍 Search	➕ Insert	🗑 Empty	⊘ Drop	4	InnoDB	utf8mb4_general_ci	16.0 KiB	-
☐ resume	⭐	📋 Browse	🔧 Structure	🔍 Search	➕ Insert	🗑 Empty	⊘ Drop	0	InnoDB	utf8mb4_general_ci	16.0 KiB	-
☐ student	⭐	📋 Browse	🔧 Structure	🔍 Search	➕ Insert	🗑 Empty	⊘ Drop	10	InnoDB	utf8mb4_general_ci	32.0 KiB	-
☐ time_slots	⭐	📋 Browse	🔧 Structure	🔍 Search	➕ Insert	🗑 Empty	⊘ Drop	19	InnoDB	utf8mb4_general_ci	32.0 KiB	-
7 tables	**Sum**							**75**	**InnoDB**	**utf8mb4_general_ci**	**192.0 KiB**	**0 B**

Table Descriptions:

Application Table:

				rollno	prog_name	company_name	profile_name	statas	resumeno
☐	🖉 Edit	📋 Copy	⊘ Delete	1	BTech CSE	Flying	Assistant	Applied	*NULL*
☐	🖉 Edit	📋 Copy	⊘ Delete	1	BTech CSE	Microsoft	Intern	Applied	*NULL*
☐	🖉 Edit	📋 Copy	⊘ Delete	123	MSc MnC	amazon	software engineer	Applied	*NULL*
☐	🖉 Edit	📋 Copy	⊘ Delete	456	MTech CSE	amazon	software engineer	Applied	*NULL*
☐	🖉 Edit	📋 Copy	⊘ Delete	555	BTech CSE	amazon	software engineer	Applied	*NULL*
☐	🖉 Edit	📋 Copy	⊘ Delete	555	BTech CSE	Google	SDE	Applied	*NULL*
☐	🖉 Edit	📋 Copy	⊘ Delete	555	BTech CSE	Microsoft	Intern	Applied	*NULL*
☐	🖉 Edit	📋 Copy	⊘ Delete	555	BTech CSE	VIT	SDE	Applied	*NULL*
☐	🖉 Edit	📋 Copy	⊘ Delete	789	BTech MnC	HP	SDE	Applied	*NULL*
☐	🖉 Edit	📋 Copy	⊘ Delete	2623	BTech MnC	HP	SDE	Applied	*NULL*
☐	🖉 Edit	📋 Copy	⊘ Delete	2638	BTech CSE	Google	SDE	Applied	*NULL*
☐	🖉 Edit	📋 Copy	⊘ Delete	2638	BTech CSE	HP	SDE	Applied	*NULL*
☐	🖉 Edit	📋 Copy	⊘ Delete	2638	BTech CSE	Microsoft	Intern	Applied	*NULL*
☐	🖉 Edit	📋 Copy	⊘ Delete	2650	BTech CSE	amazon	software engineer	Applied	*NULL*
☐	🖉 Edit	📋 Copy	⊘ Delete	2650	BTech CSE	HP	SDE	Applied	*NULL*
☐	🖉 Edit	📋 Copy	⊘ Delete	2650	BTech CSE	Microsoft	Intern	Applied	*NULL*
☐	🖉 Edit	📋 Copy	⊘ Delete	2662	BTech CSE	CG	SDE	Applied	*NULL*
☐	🖉 Edit	📋 Copy	⊘ Delete	2662	BTech CSE	HP	SDE	Applied	*NULL*
☐	🖉 Edit	📋 Copy	⊘ Delete	2662	BTech CSE	Microsoft	Intern	Applied	*NULL*

Program Table:

				prog_name	department	no_of_students
☐	🖉 Edit	📋 Copy	⊘ Delete	BTech CSE	Computer	6
☐	🖉 Edit	📋 Copy	⊘ Delete	BTech MnC	Mathematics	2
☐	🖉 Edit	📋 Copy	⊘ Delete	MSc MnC	Mathematics	1
☐	🖉 Edit	📋 Copy	⊘ Delete	MTech CSE	Computer	1

Eligible Table:

				prog_name	company_name	profile_name	tenth_per_crt	twelveth_per_crt	ug_cpi_crt	pg_cpi_crt	phd_cpi_crt
☐	Edit	Copy	Delete	BTech CSE	amazon	software engineer	55	60	0	0	0
☐	Edit	Copy	Delete	BTech CSE	CG	SDE	60	65	70	0	0
☐	Edit	Copy	Delete	BTech CSE	Flying	Assistant	50	40	70	0	0
☐	Edit	Copy	Delete	BTech CSE	Google	SDE	60	60	60	60	0
☐	Edit	Copy	Delete	BTech CSE	HP	SDE	45	60	75	0	0
☐	Edit	Copy	Delete	BTech CSE	Microsoft	Intern	60	55	65	0	0
☐	Edit	Copy	Delete	BTech CSE	VIT	SDE	40	45	50	0	0
☐	Edit	Copy	Delete	BTech MnC	amazon	software engineer	65	75	95	0	0
☐	Edit	Copy	Delete	BTech MnC	CG	SDE	55	70	75	0	0
☐	Edit	Copy	Delete	BTech MnC	HP	SDE	50	50	65	0	0
☐	Edit	Copy	Delete	MSc MnC	amazon	software engineer	43	56	58	0	0
☐	Edit	Copy	Delete	MSc MnC	CG	SDE	60	70	80	65	40
☐	Edit	Copy	Delete	MTech CSE	amazon	software engineer	40	60	70	0	0
☐	Edit	Copy	Delete	MTech CSE	CG	SDE	65	70	75	65	0
☐	Edit	Copy	Delete	MTech CSE	HP	SDE	65	70	86	78	0
☐	Edit	Copy	Delete	MTech CSE	VIT	SDE	55	45	60	50	0

Jobs Table:

				company_name	profile_name	job_details	ctc	application_deadline	password
☐	Edit	Copy	Delete	amazon	software engineer	B.Tech	5	2021-06-12 00:00:00	test
☐	Edit	Copy	Delete	CG	SDE	B.Tech CSE	50	2021-06-20 00:00:00	test
☐	Edit	Copy	Delete	Flying	Assistant	B.Tech All branches	6	2021-06-17 00:00:00	test
☐	Edit	Copy	Delete	Google	SDE	Internship	15	2021-06-22 00:00:00	test
☐	Edit	Copy	Delete	HP	SDE	MTech CSE	10	2021-06-15 00:00:00	test
☐	Edit	Copy	Delete	Microsoft	Intern	B.Tech	10	2021-06-19 00:00:00	test
☐	Edit	Copy	Delete	VIT	SDE	B.tech CSE	15	2021-06-20 00:00:00	test

Student Table:

				rollno	tenth_per	twelveth_per	ug_cpi	pg_cpi	phd_cpi	ug_college	pg_college	fname	mname	lname	email	prog_name	passwd
☐	Edit	Copy	Delete	1	73	57	85	-1	-1	VES		Nikku		Sastri	niks@gmail.com	BTech CSE	1234
☐	Edit	Copy	Delete	100	50	70	60	-1	-1	IIT		raj		kapoor	kapoor@gmail.com	BTech CSE	100
☐	Edit	Copy	Delete	123	80	90	85	-1	-1			test		user	test@mail.com	MSc MnC	123
☐	Edit	Copy	Delete	456	75	80	77	-1	-1	vit		rahul		karn	rahul@gmail.com	MTech CSE	456
☐	Edit	Copy	Delete	555	60	60	70	-1	-1	VIT		Test		User	test@gmail.com	BTech CSE	555
☐	Edit	Copy	Delete	789	60	75	65	-1	-1	test		anonymous		user	user@gmail.com	BTech MnC	789
☐	Edit	Copy	Delete	2623	85	90	86	-1	-1	VIT		Aditya	Narayan	Jha	jhaaadi@gmail.com	BTech MnC	2623
☐	Edit	Copy	Delete	2638	90	90	85	-1	-1	VIT		Atul	Kumar	Karn	atul@gmail.com	BTech CSE	2638
☐	Edit	Copy	Delete	2650	80	85	85	-1	-1	VIT		Rajan		Chaudhary	rajan.chaudhary2019@vitstudent.ac.in	BTech CSE	2650
☐	Edit	Copy	Delete	2662	87	85	80	-1	-1	VIT		Sushant		Srivastav	metalsrivastav@gmail.com	BTech CSE	2662

CHAPTER 4

APPLICATION PROGRAM

4.1 Back-End connectivity

Xampp creates a local database. The name of our database is **placement_portal**.Here is code for connecting our web application to MySQL database.

```php
<?php
    echo "Welcome to the connected Placement Portal Database";
    echo "<br>";
    $server='localhost';
    $port=3306;
    $uname='root';
    $pass='';
    $dbname="placement_portal";

    try
    {
        $conn = new PDO("mysql:host=$server; port=$port, dbname=$dbname", $uname
, $pass);
        $conn->setAttribute(PDO::ATTR_ERRMODE, PDO::ERRMODE_EXCEPTION);
        echo "Connection Successful.";
    }
    catch(PDOException $e)
    {
        echo "Connection failed: ".$e->getMessage();
    }

?>
```
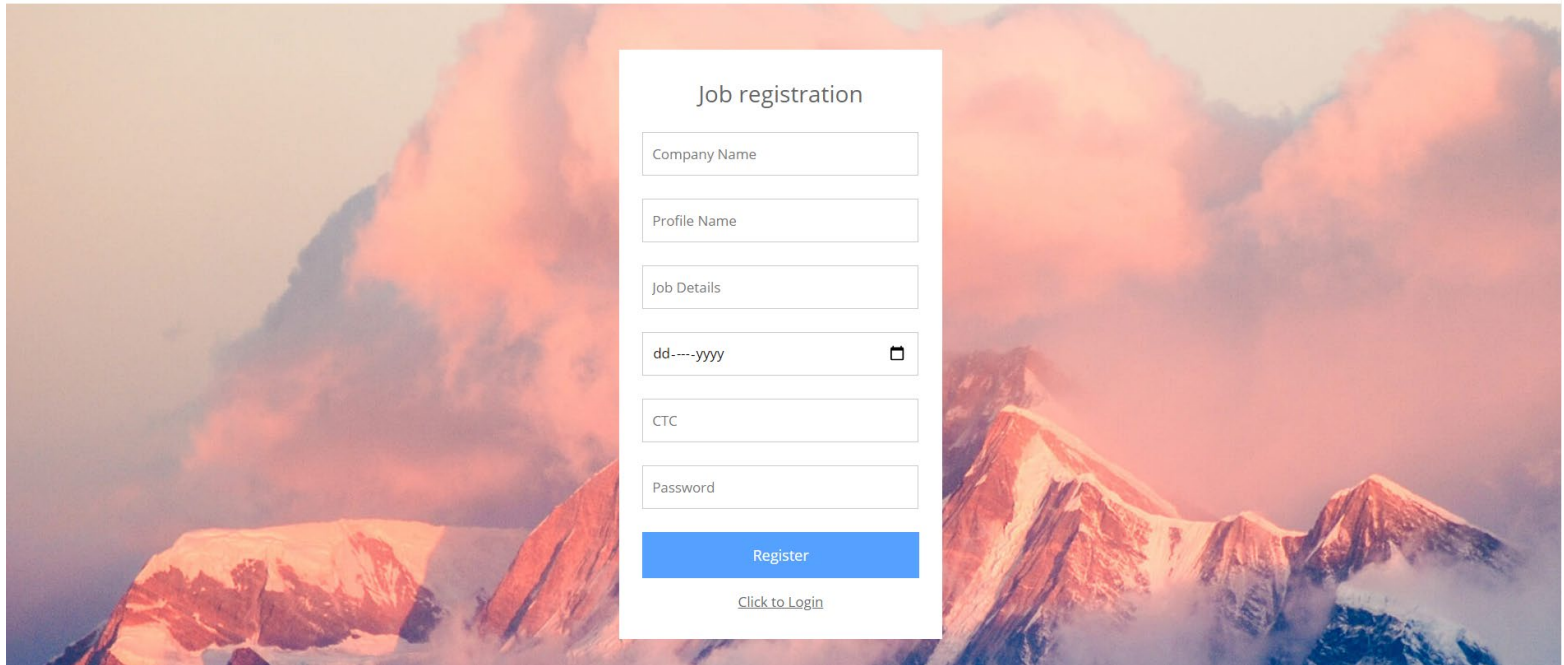
Here is the explanation of the variable that we have used in our file to connect our database:

1. $server will be the host where our server is running it is usually localhost.

2. $port will be the port number where the number is used in the local server.

3. $uname will be the username i.e., **root** and $pass will be the password.

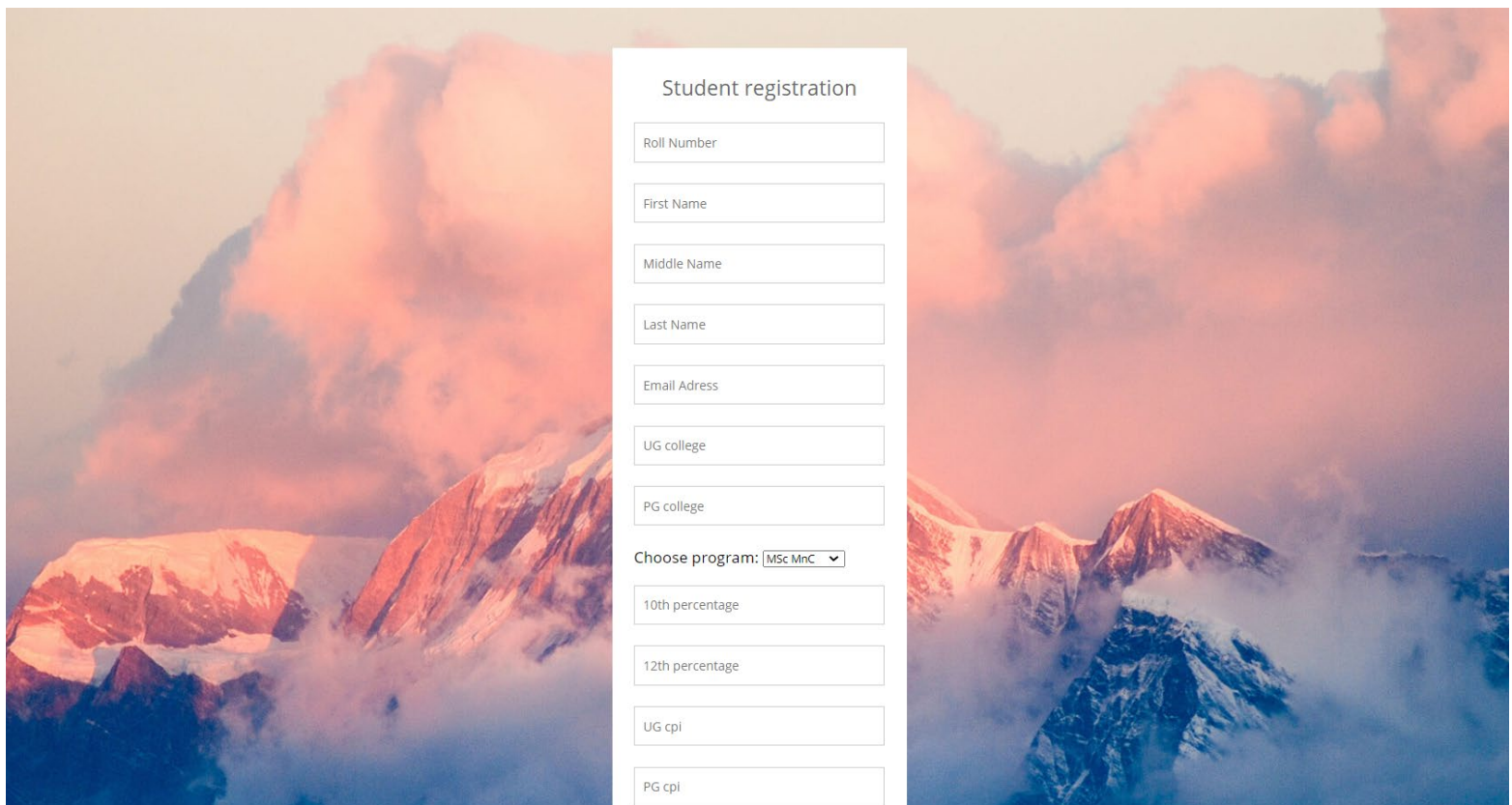4. $dbname will be the name of our database which we have created for this application.
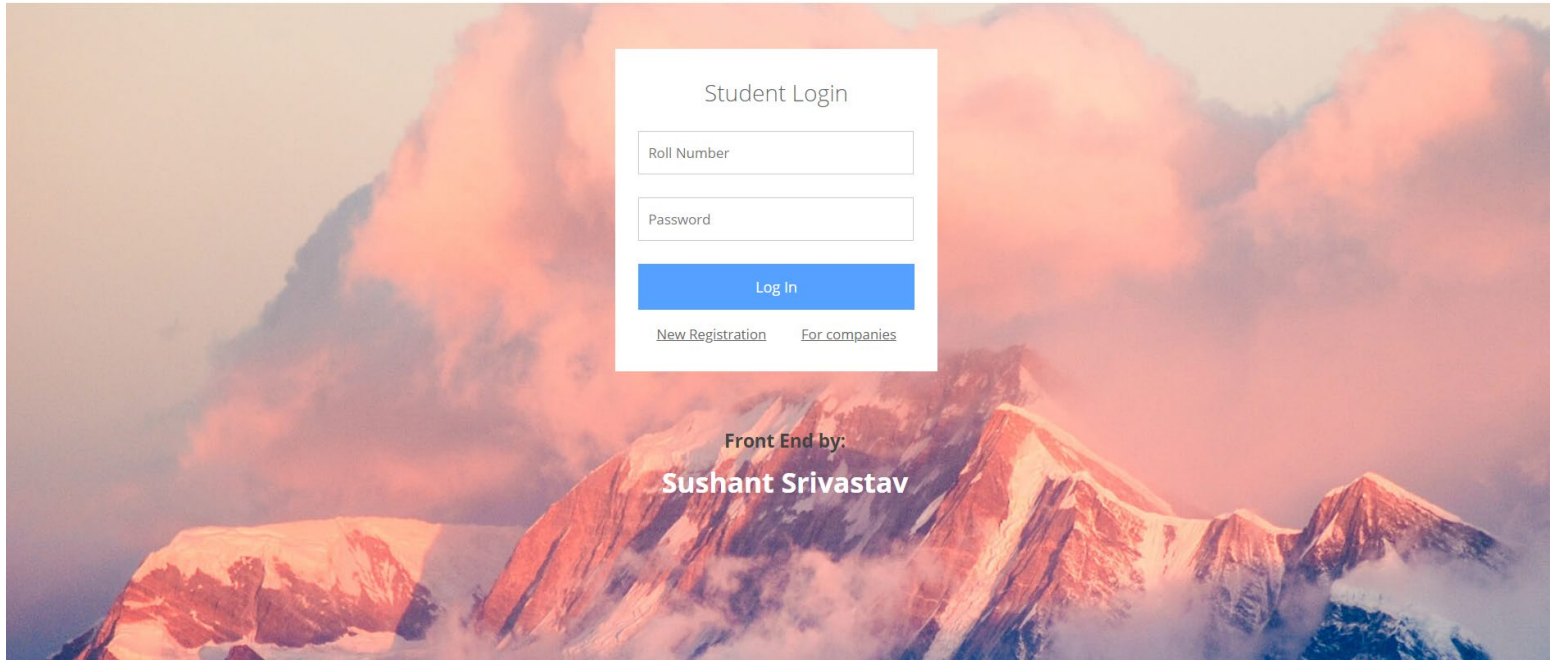
4.2 Output/Results

Figure 1: Job Registration

Figure 2: Student Registration

Figure 3: Student Login

Placement Portal
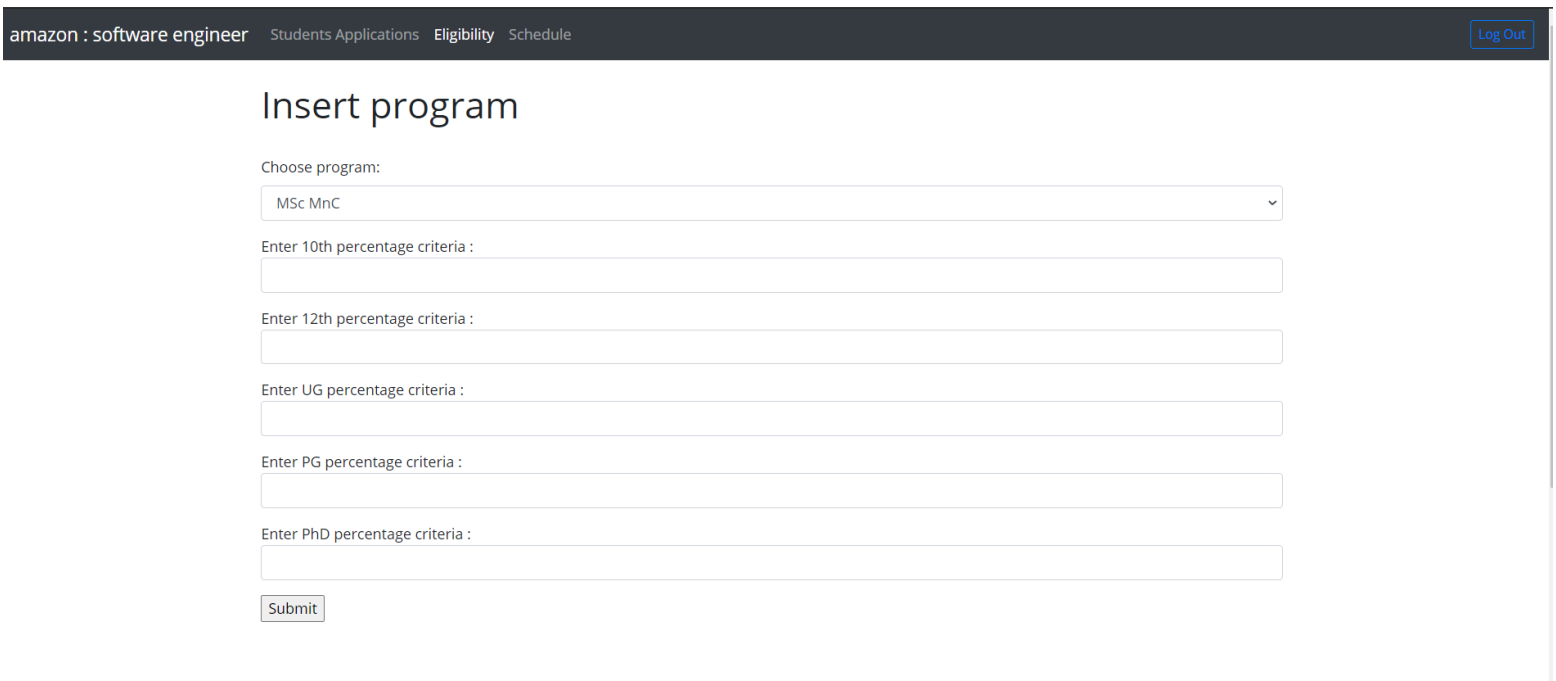
Student Login

Roll Number

Password

Log In

New Registration   For companies

Front End by:
Sushant Srivastav

Figure 4: Make program eligible.

Now company will be able to make different programs eligible with various cpi and percentage criteria. If not specified, those will be considered as no such criteria.

amazon : software engineer   Students Applications   **Eligibility**   Schedule   Log Out

Insert program

Choose program:

MSc MnC

Enter 10th percentage criteria :

Enter 12th percentage criteria :

Enter UG percentage criteria :

Enter PG percentage criteria :

Enter PhD percentage criteria :

Submit

Figure 5: Eligible programs

Eligible programs with criterias

Welcome to the connected Placement Portal Database
Connection Successful.

Program	10th per criteria	12th per criteria	UG cpi criteria	PG cpi criteria	PhD cpi criteria
BTech CSE	55	60	0	0	0
BTech MnC	65	75	95	0	0
MSc MnC	43	56	58	0	0
MTech CSE	40	60	70	0	0

Company will be able to see details of students who have applied till now. (Note that student will be only able to apply if he/she is eligible).

Figure 6: Student Applications

amazon : software engineer   Students Applications   Eligibility   Schedule   Log Out

Students who have Applied

Welcome to the connected Placement Portal Database
Connection Successful.

Roll Number	Student Name	Program Name	Email	UG CPI	PG CPI	PhD CPI
123	test user	MSc MnC	test@mail.com	85	-	-
456	rahul karn	MTech CSE	rahul@gmail.com	77	-	-
555	Test User	BTech CSE	test@gmail.com	70	-	-
2650	Rajan Chaudhary	BTech CSE	rajan.chaudhary2019@vitstudent.ac.in	85	-	-

Company will be able to schedule various events such as placement talks, tests and interview. This will be visible to only those students who are eligible and have applied.

Figure 7: Schedule an Event

amazon : software engineer   Students Applications   Eligibility   Schedule   Log Out

Schedule an event

Enter event purpose :

Enter start time :

dd-----yyyy --:-- --

Enter end time :

dd-----yyyy --:-- --

Links :

Submit

Figure 8: Scheduled Events

Here all the scheduled events are displayed made by a particular company during the placement process.

Events Scheduled

Welcome to the connected Placement Portal Database
Connection Successful.

Purpose	Start time	End time	Links
test	2021-06-04 16:09:00	2021-06-05 16:10:00	
test4	2021-06-04 16:11:00	2021-06-10 16:11:00	
test2	2021-06-05 16:10:00	2021-06-06 16:10:00	
test6	2021-06-05 16:15:00	2021-06-06 16:15:00	www.google.com
interview 1	2021-06-17 17:50:00	2021-06-10 17:50:00	

From the student's perspective after login, student will be able to see all the jobs he/she is eligible for considering his/her cpi, program enrolled in and application deadline. Student won't be able to see jobs in which he/she is not eligible.

Figure 9: Eligible Jobs

Welcome, rahul karn   Eligible Jobs   Time Slots   Log Out

Eligible Jobs

Welcome to the connected Placement Portal Database
Connection Successful.

Company_Name	Profile_Name	Application Deadline	CTC (in LPA)	Apply
amazon	software engineer	2021-06-12 00:00:00	5	Applied
CG	SDE	2021-06-20 00:00:00	50	Apply
VIT	SDE	2021-06-20 00:00:00	15	Apply

Figure 10: Allocated Time Slots

After they have applied for a particular company, they can check the allocated time slots for them for various events and interviews schedule made by the company itself.

Welcome Sushant Srivastav   Eligible jobs   Time slots   Log Out

Schedule

Welcome to the connected Placement Portal Database
Connection Successful.

Company Name	Profile name	Start time	End time	Purpose	Links
HP	SDE	2021-06-11 16:26:00	2021-06-15 16:26:00	test1	
HP	SDE	2021-06-12 16:33:00	2021-06-14 16:33:00	test5	test.com
CG	SDE	2021-06-15 23:00:00	2021-06-22 23:00:00	Interview 1	test.com
CG	SDE	2021-06-18 23:00:00	2021-06-26 23:00:00	interview 2	
Microsoft	Intern	2021-06-20 22:45:00	2021-06-19 12:45:00	Interview phase 1	test portal
CG	SDE	2021-06-22 23:00:00	2021-06-26 23:00:00	interview 3	test1.com

**All the codes for the Placement Portal Project can be found on our GitHub Repo:
Placement Portal System**

4.3 Discussion

This project is responsible towards employer to help them set their eligibility for different jobs once they have registered and also view the candidates who have applied for them and accordingly take their decisions. At the same time job seekers can provide their qualifications and can apply for different companies as per the eligibility is met.

Students and companies can register on the portal after providing some basic information. Companies can offer various profiles based on their needs and specify various criteria such as eligible departments, cpi, and so on. Companies can plan multiple placement interviews and tests so that they do not conflict with other events. Students can see all of the jobs that they are qualified for and apply for them. Companies can view a list of students who have applied for a specific position. Companies must provide relevant links for tests and interviews a few hours in advance. The complete implementation seems very useful for both companies and students in the placement process. We tried to meet all the demands and plan to improve in the future. We look forward to implementing a much bigger project.

CHAPTER 5
CONCLUSION

A full web-based application was created as Placement Portal which ensures reliable and efficient management and functioning of Placement System. The goal of this project had been to create an online portal for college placements that can be easily managed and used by users in an efficient and error-free manner. Companies can schedule multiple placement interviews and tests to avoid conflict. Students can view all of the available jobs and apply for them until they are no longer available. A list of students who have applied for a specific position can be viewed by companies. We all had a great learning experience with the entire process of designing framework structures, developing frontends and then linking them with backend and database to build this project.

We have done our best work in studying several criteria to be included and excluded to give a better shape to our project.

We can continue with many other changes to the project, which could be applied to job reminder from events and schedules and something which would make it cloud-based completely. If required for the placement of certain companies, we can add certain initial payment services and make the interface even more interactive and responsive.

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THANK YOU