CS259_CS260 Mini Project

By Group 5:

Khushi Singh 2101CS37

M Shanmukha Priya 2101CS40

Sampreety Pillai 2101CS71

Github repo link:

[khushisingh4218/CS260_MiniProject (github.com)](khushisingh4218/CS260_MiniProject)

Technology and framework used:

This project is a website made to simulate a TPC portal of IIT Patna. It uses PHP as the backend framework, HTML, CSS, Bootstrap and JavaScript for the frontend.

Overview of the portal:

The website contains 5 modes of login:

Admin

TPC officer

Student

Company

Alumni

Admin:

Admin has complete access to the portal. Admin mode can access all the database data, including the statistics.

There's also a separate page called SQL queries, where the admin can manually enter MySQL commands into the search box, and the results are displayed as a table.

Can add new placement details and alumni details.

TPC official:

The TPC official has the same access rights to the information as the admin except for the SQL queries tab, so even a person of non-technical background can operate the portal.

<u>Student:</u>

The student can first register on the student registration page, where they will be asked for their academic details.

After logging in, they can view a homepage which leads to:

Dashboard - where all the details entered will be displayed, update details,

Companies which they are eligible for,

Alumni statistics, general trends of placements in IIT Patna and current placements.

The student can apply filters to see the desired results.

<u>Company:</u>

Has a registration page which gives a cutoff and the skills required and the minimum grade in that skill for a student to be eligible.

Once a company logs in, a homepage will be visible, which can redirect to the company dashboard, list of eligible students (here we have assumed that all the eligible students have applied for the company and the student is eligible only when they satisfy the company's eligibility criteria and if placed, the CTC the company is offering should be more than their previous CTC), update details (change the eligibility criteria), statistics showing the placement trend in IIT Patna, Alumni placed in the company and statistics with filters of the students placed in the company.

Tables used in the project

```
+------------------+
| Tables_in_tpc    |
+------------------+
| alumnus          |
| branch_credits   |
| companies        |
| login            |
| placements       |
| skills           |
| skills_pass_grade |
| student_details  |
+------------------+
8 rows in set (0.001 sec)
```

Description of the tables

```
MariaDB [tpc]> desc student_details;
+----------------+--------------+------+-----+---------+-------+
| Field          | Type         | Null | Key | Default | Extra |
+----------------+--------------+------+-----+---------+-------+
| rollno         | varchar(10)  | NO   | PRI | NULL    |       |
| name           | varchar(50)  | YES  |     | NULL    |       |
| semester       | int(11)      | YES  |     | NULL    |       |
| cpi            | double       | YES  |     | NULL    |       |
| grade10        | int(11)      | YES  |     | NULL    |       |
| grade12        | int(11)      | YES  |     | NULL    |       |
| branch         | varchar(10)  | YES  | MUL | NULL    |       |
| age            | int(11)      | YES  |     | NULL    |       |
| interest       | varchar(50)  | YES  |     | NULL    |       |
| batch_year     | int(11)      | YES  |     | NULL    |       |
| placed         | char(1)      | YES  |     | NULL    |       |
| transcript     | varchar(200) | YES  |     | NULL    |       |
| interest_grade | double       | YES  |     | NULL    |       |
+----------------+--------------+------+-----+---------+-------+
13 rows in set (0.001 sec)
```

```
MariaDB [tpc]> desc skills_pass_grade;
+----------+-------------+------+-----+---------+-------+
| Field    | Type        | Null | Key | Default | Extra |
+----------+-------------+------+-----+---------+-------+
| ccode    | varchar(10) | NO   | PRI | NULL    |       |
| ml       | double      | YES  |     | NULL    |       |
| cp       | double      | YES  |     | NULL    |       |
| iot      | double      | YES  |     | NULL    |       |
| mng      | double      | YES  |     | NULL    |       |
| ncc      | double      | YES  |     | NULL    |       |
| cybsec   | double      | YES  |     | NULL    |       |
| dsa      | double      | YES  |     | NULL    |       |
| network  | double      | YES  |     | NULL    |       |
| db       | double      | YES  |     | NULL    |       |
| software | double      | YES  |     | NULL    |       |
+----------+-------------+------+-----+---------+-------+
11 rows in set (0.001 sec)
```

```
MariaDB [tpc]> desc skills;
+----------+-------------+------+-----+---------+-------+
| Field    | Type        | Null | Key | Default | Extra |
+----------+-------------+------+-----+---------+-------+
| ccode    | varchar(10) | YES  | MUL | NULL    |       |
| ml       | tinyint(1)  | YES  |     | NULL    |       |
| cp       | tinyint(1)  | YES  |     | NULL    |       |
| iot      | tinyint(1)  | YES  |     | NULL    |       |
| mng      | tinyint(1)  | YES  |     | NULL    |       |
| ncc      | tinyint(1)  | YES  |     | NULL    |       |
| cybsec   | tinyint(1)  | YES  |     | NULL    |       |
| dsa      | tinyint(1)  | YES  |     | NULL    |       |
| network  | tinyint(1)  | YES  |     | NULL    |       |
| db       | tinyint(1)  | YES  |     | NULL    |       |
| software | tinyint(1)  | YES  |     | NULL    |       |
+----------+-------------+------+-----+---------+-------+
11 rows in set (0.001 sec)
```

```
MariaDB [tpc]> desc placements;
+--------+-------------+------+-----+---------+-------+
| Field  | Type        | Null | Key | Default | Extra |
+--------+-------------+------+-----+---------+-------+
| rollno | varchar(10) | YES  | MUL | NULL    |       |
| ccode  | varchar(10) | YES  | MUL | NULL    |       |
| ctc    | int(11)     | YES  |     | NULL    |       |
| psem   | int(11)     | YES  |     | NULL    |       |
| pyear  | int(11)     | YES  |     | NULL    |       |
+--------+-------------+------+-----+---------+-------+
5 rows in set (0.001 sec)
```

```
MariaDB [tpc]> desc login;
+--------+-------------+------+-----+---------+-------+
| Field  | Type        | Null | Key | Default | Extra |
+--------+-------------+------+-----+---------+-------+
| id     | varchar(10) | NO   | PRI | NULL    |       |
| passw  | varchar(10) | YES  |     | NULL    |       |
| entity | varchar(5)  | YES  |     | NULL    |       |
+--------+-------------+------+-----+---------+-------+
3 rows in set (0.001 sec)
```

```
MariaDB [tpc]> desc companies;
+---------+-------------+------+-----+---------+-------+
| Field   | Type        | Null | Key | Default | Extra |
+---------+-------------+------+-----+---------+-------+
| ccode   | varchar(10) | NO   | PRI | NULL    |       |
| cname   | varchar(20) | YES  |     | NULL    |       |
| min_sem | int(11)     | YES  |     | NULL    |       |
| min_cpi | double      | YES  |     | NULL    |       |
| package | int(11)     | YES  |     | NULL    |       |
| mode    | varchar(20) | YES  |     | NULL    |       |
| yor     | int(11)     | YES  |     | NULL    |       |
+---------+-------------+------+-----+---------+-------+
7 rows in set (0.001 sec)
```

```
MariaDB [tpc]> desc branch_credits;
+--------+-------------+------+-----+---------+-------+
| Field  | Type        | Null | Key | Default | Extra |
+--------+-------------+------+-----+---------+-------+
| branch | varchar(10) | NO   | PRI | NULL    |       |
| sem1   | int(11)     | YES  |     | NULL    |       |
| sem2   | int(11)     | YES  |     | NULL    |       |
| sem3   | int(11)     | YES  |     | NULL    |       |
| sem4   | int(11)     | YES  |     | NULL    |       |
| sem5   | int(11)     | YES  |     | NULL    |       |
| sem6   | int(11)     | YES  |     | NULL    |       |
| sem7   | int(11)     | YES  |     | NULL    |       |
| sem8   | int(11)     | YES  |     | NULL    |       |
+--------+-------------+------+-----+---------+-------+
9 rows in set (0.001 sec)
```

```
MariaDB [tpc]> desc alumnus;\
+----------+-------------+------+-----+---------+-------+
| Field    | Type        | Null | Key | Default | Extra |
+----------+-------------+------+-----+---------+-------+
| rollno   | varchar(10) | YES  | MUL | NULL    |       |
| ccode    | varchar(10) | YES  | MUL | NULL    |       |
| ctc      | int(11)     | YES  |     | NULL    |       |
| area     | varchar(20) | YES  |     | NULL    |       |
| position | varchar(20) | YES  |     | NULL    |       |
| tenure   | int(11)     | YES  |     | NULL    |       |
| pyear    | int(11)     | YES  |     | NULL    |       |
+----------+-------------+------+-----+---------+-------+
7 rows in set (0.001 sec)
```

ER Diagram
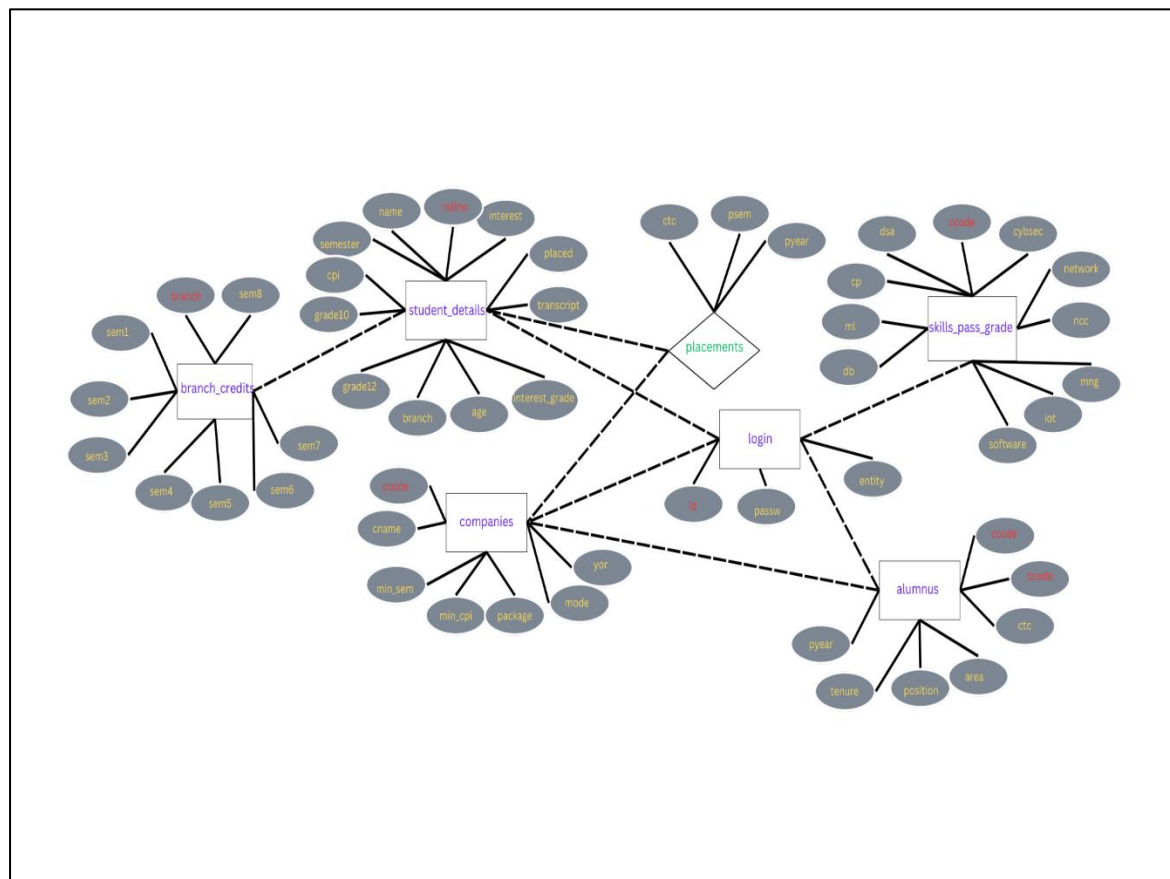
Relational Schema
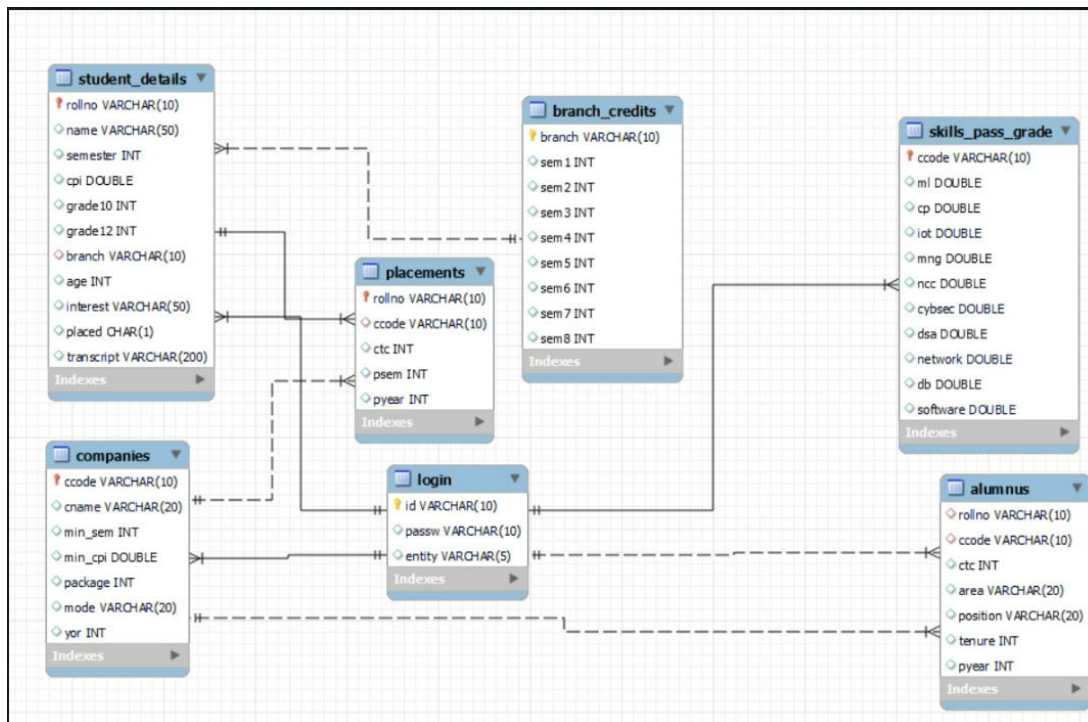
Arrows from one table to the other indicate the existence of foreign key between those two tables.

Description of primary and foreign keys

student_details table

rollno -> Primary key

foreign keys:

student_details(rollno) to login(id)

student_details(branch) to branch_credits(branch)

placements table

rollno -> Primary key

foreign keys:

plaecments(ccode) to login(id)

login table

id -> Primary key

alumnus table:

foreign keys:

alumnus(rollno)m to login(id)

alumnus(ccode) to companies(ccode)

<u>branch_credits table:</u>

branch -> Primary key

<u>skills_pass_grade table:</u>

ccode -> Primary key

foreign key:

skills_pass_grade(ccode) to login(id)