



**Department of Computer Science & Engineering**  
**DBMS**  
**Project**

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**Sem: V**  
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# **Online Course Registration System**

## Description

This is an online course registration system which can be implemented in universities where students can easily enrol themselves into courses and admins can manage the courses, departments, and students

The admin user is in charge of handling all of the system's information; specifically, he or she will register new students, create courses and departments, and keep track of the total number of enrollees. The student can log in to the system using his or her Registration Number and the password the admin issued after creating the student access. The student has the option to enrol in a course for a particular level. Additionally, he or she can modify their profile and system password. Then the student can also print his/her enrolment records same as the admin for all students.

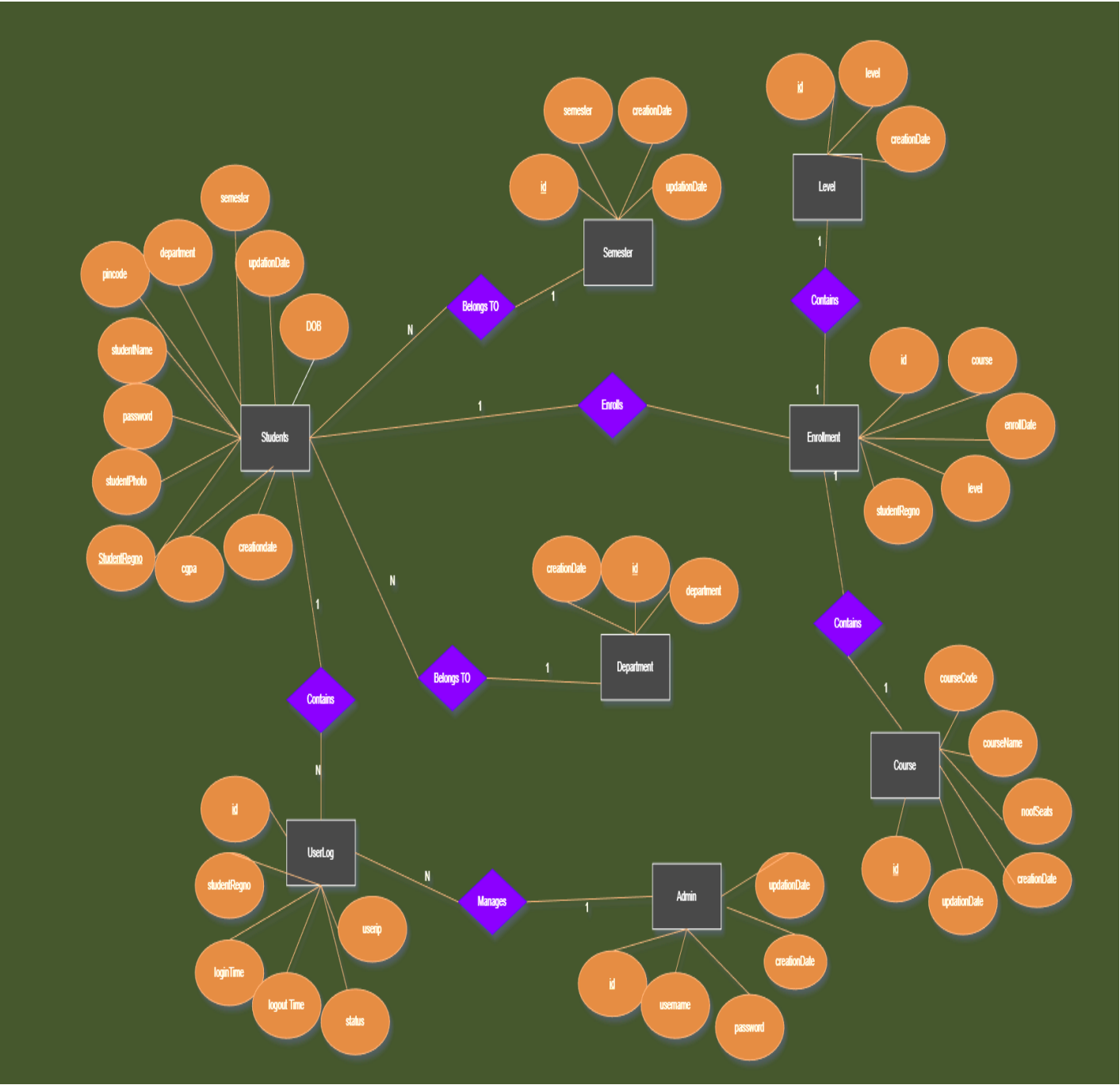
Also, a user log table is created which keeps records of every time a student logs into and logs out of the portal to register for a course. For every table there are “creation Date” and “update date” columns which automatically get updated keeping track of when something was created.

Apart from all the relevant queries being executed, admins can execute their own queries in the query runner page for which they have exclusive access to. Relevant graphs have also been shown.

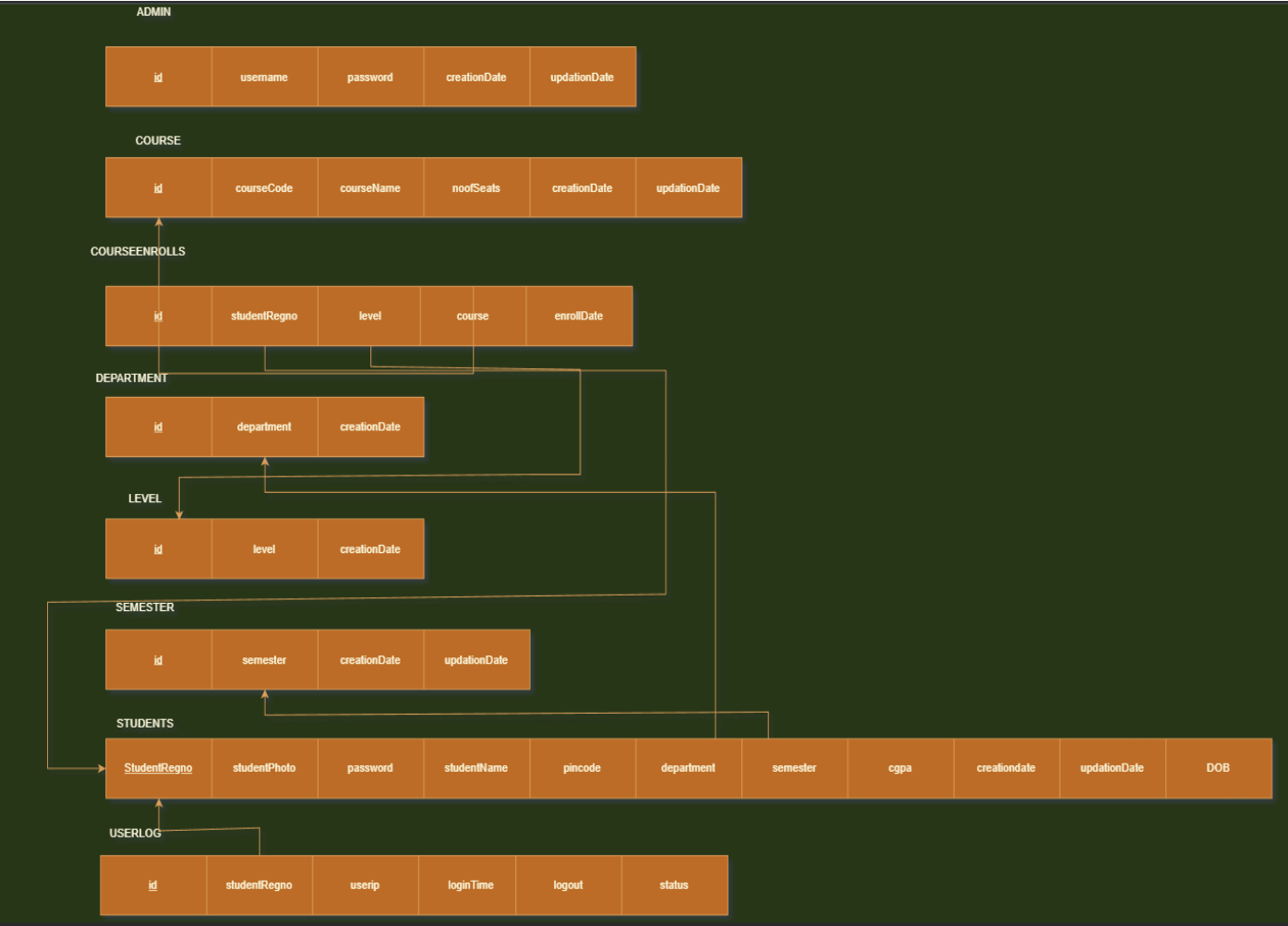
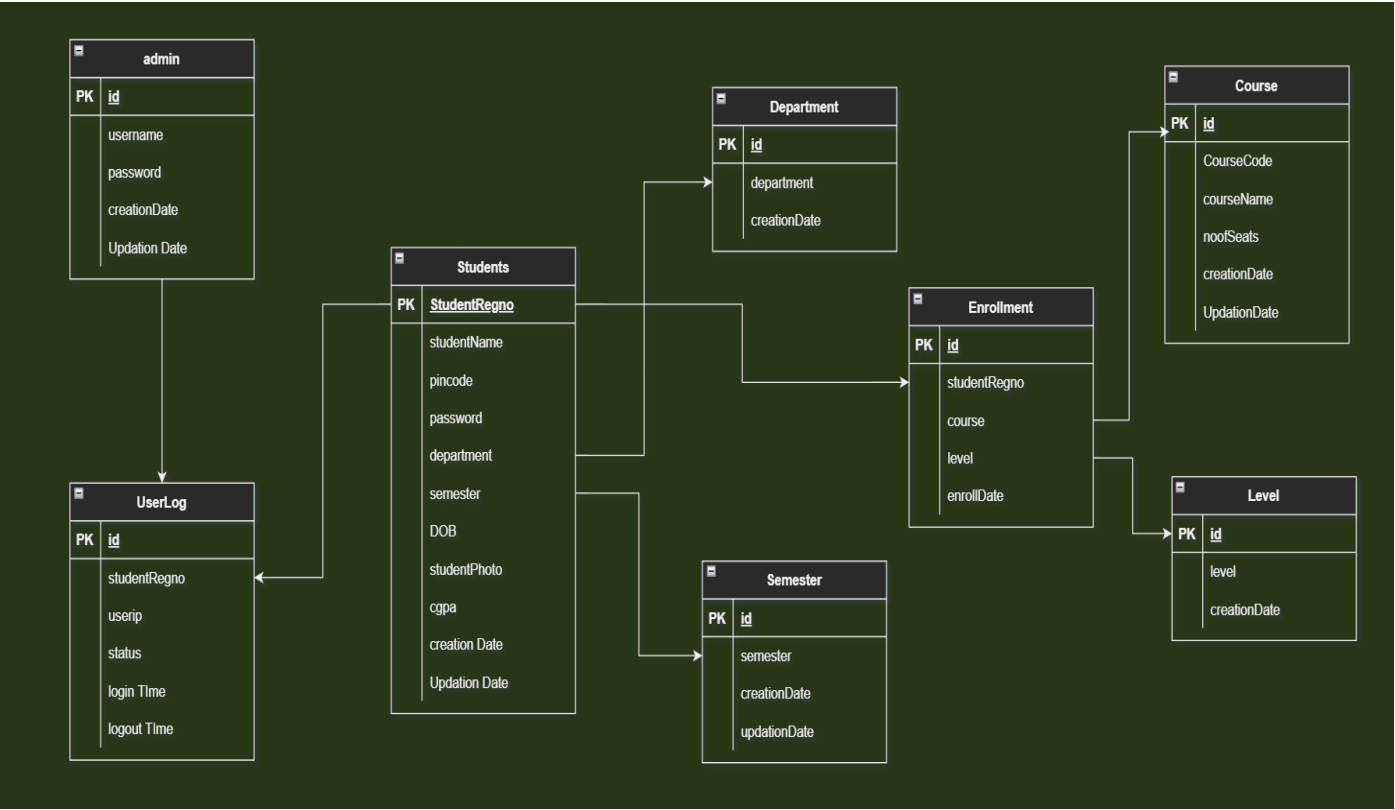
### **Scope:**

- a. For Universities and schools around the world
- b. For Online Edtech Companies to easily keep track of their students and also for students to easily enrol themselves
- c. For online course completion sites where level of course to which one enrolls has a greater importance to be managed (Coursea etc)

# ER Diagram



# Relational Schema



# DDL statements to build the database

```
CREATE TABLE `admin` (  
  `id` int(11) NOT NULL,  
  `username` varchar(255) NOT NULL,  
  `password` varchar(255) NOT NULL,  
  `creationDate` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP,  
  `updationDate` varchar(255) NOT NULL  
)
```

```
CREATE TABLE `course` (  
  `id` int(11) NOT NULL,  
  `courseCode` varchar(255) NOT NULL,  
  `courseName` varchar(255) NOT NULL,  
  `noofSeats` int(11) NOT NULL,  
  `creationDate` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP,  
  `updationDate` varchar(255) NOT NULL  
)
```

```
CREATE TABLE `enrolment` (  
  `id` int(11) NOT NULL,  
  `studentRegno` varchar(255) NOT NULL,  
  `level` int(11) NOT NULL,  
  `course` int(11) NOT NULL,  
  `enrollDate` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP  
)
```

```
CREATE TABLE `department` (  
  `id` int(11) NOT NULL,  
  `department` varchar(255) NOT NULL,  
  `creationDate` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP  
)
```

```
CREATE TABLE `level` (  
  `id` int(11) NOT NULL,  
  `level` varchar(255) NOT NULL,  
  `creationDate` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP  
)
```

```
CREATE TABLE `semester` (  
  `id` int(11) NOT NULL,  
  `semester` varchar(255) NOT NULL,  
  `creationDate` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP,  
  `updationDate` varchar(255) NOT NULL  
)
```

```
CREATE TABLE `students` (  
  `StudentRegno` varchar(255) NOT NULL,  
  `studentPhoto` varchar(255) DEFAULT NULL,  
  `password` varchar(255) NOT NULL,  
  `studentName` varchar(255) NOT NULL,  
  `pincode` varchar(255) NOT NULL,  
  `department` varchar(255) NOT NULL,  
  `semester` varchar(255) NOT NULL,  
  `cgpa` decimal(10,2) NOT NULL,  
  `creationdate` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP,  
  `updataionDate` varchar(255) NOT NULL,  
  `DOB` date NOT NULL  
)
```

```
CREATE TABLE `userlog` (  
  `id` int(11) NOT NULL,  
  `studentRegno` varchar(255) NOT NULL,  
  `userip` binary(16) NOT NULL,  
  `loginTime` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP,  
  `logout` varchar(255) NOT NULL,  
  `status` int(11) NOT NULL  
)
```

```
ALTER TABLE `admin`  
  MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=2;  
  ADD PRIMARY KEY (`id`);  
ALTER TABLE `course`  
  MODIFY `id` int(11) NOT NULL AUTO_INCREMENT;  
  ADD PRIMARY KEY (`id`);  
ALTER TABLE `enrolment`  
  MODIFY `id` int(11) NOT NULL AUTO_INCREMENT;  
  ADD PRIMARY KEY (`id`);  
ALTER TABLE `department`  
  MODIFY `id` int(11) NOT NULL AUTO_INCREMENT;  
  ADD PRIMARY KEY (`id`);  
ALTER TABLE `level`  
  MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=5;  
  ADD PRIMARY KEY (`id`);  
ALTER TABLE `semester`  
  MODIFY `id` int(11) NOT NULL AUTO_INCREMENT;  
  ADD PRIMARY KEY (`id`);  
ALTER TABLE `students`  
  ADD PRIMARY KEY (`StudentRegno`);  
ALTER TABLE `userlog`  
  MODIFY `id` int(11) NOT NULL AUTO_INCREMENT;  
  ADD PRIMARY KEY (`id`);  
COMMIT;
```

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0016 seconds.)

```
CREATE TABLE `admin` ( `id` int(11) NOT NULL, `username` varchar(255) NOT NULL, `password` varchar(255) NOT NULL, `creationDate` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP, `updateDate` varchar(255) NOT NULL ) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0005 seconds.)

```
CREATE TABLE `course` ( `id` int(11) NOT NULL, `courseCode` varchar(255) NOT NULL, `courseName` varchar(255) NOT NULL, `noOfSeats` int(11) NOT NULL, `creationDate` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP, `updateDate` varchar(255) NOT NULL ) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0005 seconds.)

```
CREATE TABLE `courseenrolls` ( `id` int(11) NOT NULL, `studentRegno` varchar(255) NOT NULL, `level` int(11) NOT NULL, `course` int(11) NOT NULL, `enrollDate` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP ) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0004 seconds.)

```
CREATE TABLE `department` ( `id` int(11) NOT NULL, `department` varchar(255) NOT NULL, `creationDate` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP ) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0005 seconds.)

```
CREATE TABLE `level` ( `id` int(11) NOT NULL, `level` varchar(255) NOT NULL, `creationDate` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP ) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0006 seconds.)

```
CREATE TABLE `semester` ( `id` int(11) NOT NULL, `semester` varchar(255) NOT NULL, `creationDate` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP, `updateDate` varchar(255) NOT NULL ) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0004 seconds.)

```
CREATE TABLE `students` ( `studentRegno` varchar(255) NOT NULL, `studentPhoto` varchar(255) DEFAULT NULL, `password` varchar(255) NOT NULL, `studentName` varchar(255) NOT NULL, `pincode` varchar(255) NOT NULL, `department` varchar(255) NOT NULL, `semester` varchar(255) NOT NULL, `cgpa` decimal(10,2) NOT NULL, `creationDate` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP, `updateDate` varchar(255) NOT NULL, `dob` date NOT NULL ) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0006 seconds.)

```
CREATE TABLE `userlog` ( `id` int(11) NOT NULL, `studentRegno` varchar(255) NOT NULL, `userId` binary(16) NOT NULL, `loginTime` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP, `logout` varchar(255) NOT NULL, `status` int(11) NOT NULL ) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0005 seconds.)

```
ALTER TABLE `admin` ADD PRIMARY KEY (`id`);
```

[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0005 seconds.)

```
-- -- Indexes for table `course` -- ALTER TABLE `course` ADD PRIMARY KEY (`id`);
```

[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0007 seconds.)

```
-- -- Indexes for table `courseenrolls` -- ALTER TABLE `courseenrolls` ADD PRIMARY KEY (`id`);
```

[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0005 seconds.)

```
-- -- Indexes for table `department` -- ALTER TABLE `department` ADD PRIMARY KEY (`id`);
```

[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0005 seconds.)

```
-- -- Indexes for table `level` -- ALTER TABLE `level` ADD PRIMARY KEY (`id`);
```

[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0005 seconds.)

```
-- -- Indexes for table `semester` -- ALTER TABLE `semester` ADD PRIMARY KEY (`id`);
```

[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0005 seconds.)

```
-- -- Indexes for table `students` -- ALTER TABLE `students` ADD PRIMARY KEY (`studentRegno`);
```

Console

# Different methods used to populate data

## a. Loading data from file / Importing data through phpmyadmin

✓ 10 rows inserted. (Query took 0.0022 seconds.)

```
LOAD DATA INFILE 'course.csv' INTO TABLE course columns TERMINATED BY ',' optionally ENCLOSED BY ''  
ESCAPED BY '' LINES TERMINATED BY '\n' IGNORE 1 LINES (id,courseCode,courseName,noofSeats);
```

[\[ Edit inline \]](#) [\[ Edit \]](#) [\[ Create PHP code \]](#)

id	courseCode	courseName	noofSeats
101	CS301	Database Management System	5
102	CS302	Machine Intelligence	10
103	CS303	Software Engineering	5
104	EE301	Digital Design	10
105	EE302	Computer Organisation	5
106	EE303	Computer Architecture	10
107	BT301	BioMedical Engineering	5
108	BT302	Bio Inspired Engineering	10
109	ME301	Fluid Dynamics	5
110	ME302	Rotational Dynamics	10

✓ 26 rows inserted. (Query took 0.0025 seconds.)

```
LOAD DATA INFILE 'students.csv' INTO TABLE students columns TERMINATED BY ',' optionally ENCLOSED BY ''  
ESCAPED BY '' LINES TERMINATED BY '\n' IGNORE 1 LINES  
(StudentRegno,password,studentName,pincode,department,semester,cgpa,DOB);
```

[\[ Edit inline \]](#) [\[ Edit \]](#) [\[ Create PHP code \]](#)

StudentRegno	password	studentName	pincode	department	semester	cgpa	DOB
UG20CS101	UG20CS101	Shashank S	560072	Computer Science	V SEMESTER	8.5	22-06-2002
UG20CS102	UG20CS102	Siddarth MP	560075	Computer Science	V SEMESTER	8.75	14-05-2002
UG20CS103	UG20CS103	Shuchith BU	560078	Computer Science	V SEMESTER	9	03-03-2002
UG20CS104	UG20CS104	Sankalp Dev	560072	Computer Science	V SEMESTER	7.25	04-05-2002
UG20CS105	UG20CS105	Shyam K	560075	Computer Science	V SEMESTER	8.25	09-08-2002
UG20EE101	UG20EE101	Sameer K	560072	Electrical	V SEMESTER	8.5	06-05-2002
UG20EE102	UG20EE102	Amogh N	560079	Electrical	V SEMESTER	9.75	05-04-2002
UG20EE103	UG20EE103	Harsha HL	560078	Electrical	V SEMESTER	6.25	09-03-2002
UG20EE104	UG20EE104	Ritvik J	560074	Electrical	V SEMESTER	6.75	11-12-2002
UG20EE105	UG20EE105	Yashas V	560079	Electrical	V SEMESTER	8.75	12-11-2002
UG20BT101	UG20BT101	Pranav PA	560072	Bio Technology	V SEMESTER	9.5	23-10-2002
UG20BT102	UG20BT102	Pranjal G	560077	Bio Technology	V SEMESTER	10	03-05-2002
UG20BT103	UG20BT103	Girish K	560079	Bio Technology	V SEMESTER	9.5	20-11-2002
UG20BT104	UG20BT104	Phaneesh R	560070	Bio Technology	V SEMESTER	9.25	26-07-2002
UG20BT105	UG20BT105	Amitram A	560073	Bio Technology	V SEMESTER	7.25	28-02-2002
UG21CS101	UG21CS101	Sachin CH	560072	Computer Science	III SEMESTER	5.75	20-03-2003
UG21CS102	UG21CS102	Sehag A	560078	Computer Science	III SEMESTER	7.75	24-09-2003
UG21CS103	UG21CS103	Srujan TM	560073	Computer Science	III SEMESTER	9.5	23-04-2003
UG21CS104	UG21CS104	Manoj J	560071	Computer Science	III SEMESTER	9.25	12-02-2003
UG21CS105	UG21CS105	Preetham R	560076	Computer Science	III SEMESTER	7.5	22-12-2003
UG21EE101	UG21EE101	Ananth A	560071	Electrical	III SEMESTER	8	21-01-2003
UG21EE102	UG21EE102	Abhishek A	560078	Electrical	III SEMESTER	8.5	30-06-2003
UG21EE103	UG21EE103	Tarun M	560079	Electrical	III SEMESTER	5	31-01-2003
UG21EE104	UG21EE104	Rakshith P	560074	Electrical	III SEMESTER	6.75	12-02-2003
UG21EE105	UG21EE105	Sharath K	560074	Electrical	III SEMESTER	7.5	27-08-2003



✔ 75 rows inserted. (Query took 0.0023 seconds.)

```
load data infile 'courseenrolls.csv' into table courseenrolls columns terminated by ',' optionally ENCLOSED by '"' escaped by '\"' lines TERMINATED by '\n' ignore 1 LINES (id,studentRegno,level,course);
```

[\[Edit inline\]](#) [\[Edit\]](#) [\[Create PHP code\]](#)

id	studentRegno	level	course
201	UG20CS101	401	101
202	UG20CS101	401	102
203	UG20CS101	404	109
204	UG20CS102	401	101
205	UG20CS102	401	102
206	UG20CS102	402	109
207	UG20CS103	401	101
208	UG20CS103	401	102
209	UG20CS103	401	103
210	UG20CS104	401	102
211	UG20CS104	402	104
212	UG20CS104	402	105
213	UG20CS105	401	102
214	UG20CS105	402	104
215	UG20CS105	402	105
216	UG20EE101	401	104
217	UG20EE101	401	105
218	UG20EE101	401	106
219	UG20EE102	401	104
220	UG20EE102	403	110
221	UG20EE102	401	106
222	UG20EE103	401	104
223	UG20EE103	401	105
224	UG20EE103	401	106
225	UG20EE104	402	102
226	UG20EE104	401	104

## b. Inserting data Manually

✓ 4 rows inserted. (Query took 0.0024 seconds.)

```
INSERT INTO `level` (`id`, `level`, `creationDate`) VALUES (401, 'Regular Course', '2022-11-12 14:03:20'), (402, 'Mini Course', '2022-11-12 14:03:20'), (403, 'Summer Course', '2022-11-12 14:03:32'), (404, 'PESU IO', '2022-11-12 14:03:32');
```

[ Edit inline ] [ Edit ] [ Create PHP code ]

✓ 1 row inserted. (Query took 0.0006 seconds.)

```
insert into department values('301','Computer Science',DEFAULT);
```

[ Edit inline ] [ Edit ] [ Create PHP code ]

✓ 1 row inserted. (Query took 0.0026 seconds.)

```
insert into department values('302','Mechanical',DEFAULT);
```

[ Edit inline ] [ Edit ] [ Create PHP code ]

✓ 1 row inserted. (Query took 0.0003 seconds.)

```
insert into department values('303','Bio Technology',DEFAULT);
```

[ Edit inline ] [ Edit ] [ Create PHP code ]

✓ 1 row inserted. (Query took 0.0004 seconds.)

```
insert into department values('304','Electrical',DEFAULT);
```

[ Edit inline ] [ Edit ] [ Create PHP code ]

✓ 1 row inserted. (Query took 0.0004 seconds.)

```
insert into department values('305','Electronic',DEFAULT);
```

[ Edit inline ] [ Edit ] [ Create PHP code ]

✓ 1 row inserted. (Query took 0.0003 seconds.)

```
insert into department values('306','Artificial Intelligence',DEFAULT);
```

[ Edit inline ] [ Edit ] [ Create PHP code ]

✓ 1 row inserted. (Query took 0.0003 seconds.)

```
insert into department values('307','Civil',DEFAULT);
```

[ Edit inline ] [ Edit ] [ Create PHP code ]

✓ 1 row inserted. (Query took 0.0006 seconds.)

```
insert into semester values ('501','I SEMESTER',DEFAULT,DEFAULT);
```

[ [Edit inline](#) ] [ [Edit](#) ] [ [Create PHP code](#) ]

⚠ Warning: #1364 Field 'updationDate' doesn't have a default value

✓ 1 row inserted. (Query took 0.0026 seconds.)

```
insert into semester values ('502','II SEMESTER',DEFAULT,DEFAULT);
```

[ [Edit inline](#) ] [ [Edit](#) ] [ [Create PHP code](#) ]

⚠ Warning: #1364 Field 'updationDate' doesn't have a default value

✓ 1 row inserted. (Query took 0.0003 seconds.)

```
insert into semester values ('503','III SEMESTER',DEFAULT,DEFAULT);
```

[ [Edit inline](#) ] [ [Edit](#) ] [ [Create PHP code](#) ]

⚠ Warning: #1364 Field 'updationDate' doesn't have a default value

✓ 1 row inserted. (Query took 0.0004 seconds.)

```
insert into semester values ('504','IV SEMESTER',DEFAULT,DEFAULT);
```

[ [Edit inline](#) ] [ [Edit](#) ] [ [Create PHP code](#) ]

⚠ Warning: #1364 Field 'updationDate' doesn't have a default value

✓ 1 row inserted. (Query took 0.0003 seconds.)

```
insert into semester values ('505','V SEMESTER',DEFAULT,DEFAULT);
```

[ [Edit inline](#) ] [ [Edit](#) ] [ [Create PHP code](#) ]

# Queries

## a. JOIN

1. Admin to see the entire history of every single enrolment by joining multiple relevant tables and selecting relevant columns (shown on a front-end page too)

```
select courseenrolls.course as cid, course.courseName as courname,
students.department as dept, courseenrolls.enrollDate as edate ,
students.semester as sem, students.studentName as sname,
students.StudentRegno as sregno,
level.level as level1 from courseenrolls
join course on course.id=courseenrolls.course
join students on students.StudentRegno=courseenrolls.studentRegno
join level on level.id=courseenrolls.level
```

ONLINE COURSE  
REGISTRATION



SEMESTER DEPARTMENT COURSE REGISTRATION MANAGE STUDENTS ENROLL HISTORY STUDENT LOGS LOGOUT


### ENROLL HISTORY

Enroll History								
#	Student Name	Student Reg no	Course Name	Department	Level	Semester	Enrollment Date	
1	Shashank S	UG20CS101	Database Management System	Computer Science	Regular Course	V SEMESTER	2022-11-18 11:56:17	<a href="#">Print</a>
2	Shashank S	UG20CS101	Machine Intelligence	Computer Science	Regular Course	V SEMESTER	2022-11-18 11:56:17	<a href="#">Print</a>
3	Siddarth MP	UG20CS102	Database Management System	Computer Science	Regular Course	V SEMESTER	2022-11-18 11:56:17	<a href="#">Print</a>
4	Siddarth MP	UG20CS102	Machine Intelligence	Computer Science	Regular Course	V SEMESTER	2022-11-18 11:56:17	<a href="#">Print</a>
5	Shuchith BU	UG20CS103	Database Management System	Computer Science	Regular Course	V SEMESTER	2022-11-18 11:56:17	<a href="#">Print</a>
6	Shuchith BU	UG20CS103	Machine Intelligence	Computer Science	Regular Course	V SEMESTER	2022-11-18 11:56:17	<a href="#">Print</a>
7	Shuchith BU	UG20CS103	Software Engineering	Computer Science	Regular Course	V SEMESTER	2022-11-18 11:56:17	<a href="#">Print</a>
8	Sankalp Dev	UG20CS104	Machine Intelligence	Computer Science	Regular Course	V SEMESTER	2022-11-18 11:56:17	<a href="#">Print</a>
9	Shyam K	UG20CS105	Machine Intelligence	Computer Science	Regular Course	V SEMESTER	2022-11-18 11:56:17	<a href="#">Print</a>

- students to see the entire history of their enrolment by joining multiple relevant tables and selecting relevant columns (shown on a front-end page too)




```
select courseenrolls.course as cid,
course.courseName as courname,students.department as dept,
courseenrolls.enrollDate as edate ,students.semester as sem,
students.studentName as sname,students.StudentRegno as sregno,
level.level as level1 from courseenrolls
join course on course.id=courseenrolls.course
join students on students.StudentRegno=courseenrolls.studentRegno
join level on level.id=courseenrolls.level
where courseenrolls.studentRegno=students.studentRegno
```

Welcome: Srujan TM Last Login::1 at 2022-11-18 14:17:37

ONLINE COURSE  
REGISTRATION 

ENROLL FOR COURSE ENROLL HISTORY MY PROFILE CHANGE PASSWORD LOGOUT

## ENROLL HISTORY

Enroll History								
#	Student Name	Student Register Number	Course Name	Department	Level	Semester	Enrollment Date	
1	Srujan TM	UG21CS103	Machine Intelligence	Computer Science	Regular Course	III SEMESTER	2022-11-18 11:56:17	 Print
2	Srujan TM	UG21CS103	Computer Architecture	Computer Science	Mini Course	III SEMESTER	2022-11-18 11:56:17	 Print
3	Srujan TM	UG21CS103	Bio Inspired Engineering	Computer Science	Summer Course	III SEMESTER	2022-11-18 11:56:17	 Print

### 3. To find all the regular course enrollments in computer science department

```
select course.courseName as courname,
students.department as dept,
level.level as level,
students.semester as sem ,
students.studentName as studentname,
students.cgpa as scgpa,
students.StudentRegno as sregno from courseenrolls
join course on course.id=courseenrolls.course
join level on level.id="401"
join students on (students.StudentRegno=courseenrolls.StudentRegno and students.department
= "Computer Science");
```

✓ Showing rows 0 - 29 (30 total, Query took 0.0005 seconds.)

```
select course.courseName as courname, students.department as dept, level.level as level, students.semester as sem , students.studentName as studentname, students.cgpa as scgpa, students.StudentRegno as sregno from courseenrolls
join course on course.id=courseenrolls.course join level on level.id="401" join students on (students.StudentRegno=courseenrolls.StudentRegno and students.department = "Computer Science");
```

☐ Profiling [\[ Edit inline \]](#) [\[ Edit \]](#) [\[ Explain SQL \]](#) [\[ Create PHP code \]](#) [\[ Refresh \]](#)

☐ Show all | Number of rows: 50 | Filter rows:  Sort by key: None

Extra options

courname	dept	level	sem	studentname	scgpa	sregno
Database Management System	Computer Science	Regular Course	V SEMESTER	Shashank S	8.50	UG20CS101
Machine Intelligence	Computer Science	Regular Course	V SEMESTER	Shashank S	8.50	UG20CS101
Fluid Dynamics	Computer Science	Regular Course	V SEMESTER	Shashank S	8.50	UG20CS101
Database Management System	Computer Science	Regular Course	V SEMESTER	Siddarth MP	8.75	UG20CS102
Machine Intelligence	Computer Science	Regular Course	V SEMESTER	Siddarth MP	8.75	UG20CS102
Fluid Dynamics	Computer Science	Regular Course	V SEMESTER	Siddarth MP	8.75	UG20CS102
Database Management System	Computer Science	Regular Course	V SEMESTER	Shuchith BU	9.00	UG20CS103
Machine Intelligence	Computer Science	Regular Course	V SEMESTER	Shuchith BU	9.00	UG20CS103
Software Engineering	Computer Science	Regular Course	V SEMESTER	Shuchith BU	9.00	UG20CS103
Machine Intelligence	Computer Science	Regular Course	V SEMESTER	Sankalp Dev	7.25	UG20CS104
Digital Design	Computer Science	Regular Course	V SEMESTER	Sankalp Dev	7.25	UG20CS104
Computer Organisation	Computer Science	Regular Course	V SEMESTER	Sankalp Dev	7.25	UG20CS104
Machine Intelligence	Computer Science	Regular Course	V SEMESTER	Shyam K	8.25	UG20CS105
Digital Design	Computer Science	Regular Course	V SEMESTER	Shyam K	8.25	UG20CS105
Computer Organisation	Computer Science	Regular Course	V SEMESTER	Shyam K	8.25	UG20CS105
Database Management System	Computer Science	Regular Course	III SEMESTER	Sachin CH	5.75	UG21CS101
Software Engineering	Computer Science	Regular Course	III SEMESTER	Sachin CH	5.75	UG21CS101
Computer Architecture	Computer Science	Regular Course	III SEMESTER	Sachin CH	5.75	UG21CS101
Database Management System	Computer Science	Regular Course	III SEMESTER	Sehag A	7.75	UG21CS102
Machine Intelligence	Computer Science	Regular Course	III SEMESTER	Sehag A	7.75	UG21CS102

- To find all the enrolments of III Sem students who have taken any PESU IO courses

```
select course.courseName as courname,
students.department as dept,
level.level as level,
students.semester as sem ,
students.studentName as studentname,
students.cgpa as scgpa,
students.StudentRegno as sregno from courseenrolls
join course on course.id=courseenrolls.course
join level on level.id="404"
join students
on (students.StudentRegno=courseenrolls.StudentRegno and students.semester = "III SEMESTER");
```

✓ Showing rows 0 - 24 (30 total, Query took 0.0004 seconds.)

`select course.courseName as courname, students.department as dept, level.level as level, students.semester as sem , student`  
`on course.id=courseenrolls.course join level on level.id="404" join students on (students.StudentRegno=courseenrolls.Studen`

☐ Profiling [\[ Edit inline \]](#) [\[ Edit \]](#) [\[ Explain SQL \]](#) [\[ Create PHP code \]](#) [\[ Refresh \]](#)

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

Extra options

courname	dept	level	sem	studentname	scgpa	sregno
Database Management System	Computer Science	PESU IO	III SEMESTER	Sachin CH	5.75	UG21CS101
Software Engineering	Computer Science	PESU IO	III SEMESTER	Sachin CH	5.75	UG21CS101
Computer Architecture	Computer Science	PESU IO	III SEMESTER	Sachin CH	5.75	UG21CS101
Database Management System	Computer Science	PESU IO	III SEMESTER	Sehag A	7.75	UG21CS102
Software Engineering	Computer Science	PESU IO	III SEMESTER	Sehag A	7.75	UG21CS102
Computer Architecture	Computer Science	PESU IO	III SEMESTER	Sehag A	7.75	UG21CS102
Machine Intelligence	Computer Science	PESU IO	III SEMESTER	Srujan TM	9.50	UG21CS103
Computer Architecture	Computer Science	PESU IO	III SEMESTER	Srujan TM	9.50	UG21CS103
Bio Inspired Engineering	Computer Science	PESU IO	III SEMESTER	Srujan TM	9.50	UG21CS103
Computer Architecture	Computer Science	PESU IO	III SEMESTER	Manoj J	9.25	UG21CS104
Bio Inspired Engineering	Computer Science	PESU IO	III SEMESTER	Manoj J	9.25	UG21CS104
Digital Design	Computer Science	PESU IO	III SEMESTER	Manoj J	9.25	UG21CS104
Computer Architecture	Computer Science	PESU IO	III SEMESTER	Preetham R	7.50	UG21CS105
Bio Inspired Engineering	Computer Science	PESU IO	III SEMESTER	Preetham R	7.50	UG21CS105
Digital Design	Computer Science	PESU IO	III SEMESTER	Preetham R	7.50	UG21CS105
Digital Design	Electrical	PESU IO	III SEMESTER	Ananth A	8.00	UG21EE101
Bio Inspired Engineering	Electrical	PESU IO	III SEMESTER	Ananth A	8.00	UG21EE101
Computer Organisation	Electrical	PESU IO	III SEMESTER	Ananth A	8.00	UG21EE101
Computer Organisation	Electrical	PESU IO	III SEMESTER	Abhishek A	8.50	UG21EE102
Computer Organisation	Electrical	PESU IO	III SEMESTER	Abhishek A	8.50	UG21EE102

Console

## b. Aggregate Functions

1. Find the Average cgpa of all students in Vth SEM CS Department

```
select avg(students.cgpa) as scgpa from students
where students.department = "Computer Science" and students.semester = "V SEMESTER" ;
```

Showing rows 0 - 0 (1 total, Query took 0.0002 seconds.)

```
select avg(students.cgpa) as scgpa from students where students.department = "Computer Science" and students.semester = "V SEMESTER";
```

☐ Profiling [ [Edit inline](#) ] [ [Edit](#) ] [ [Explain SQL](#) ] [ [Create PHP code](#) ] [ [Refresh](#) ]

☐ Show all | Number of rows: 25 | Filter rows:

Extra options

scgpa
8.416667

Therefore the average cgpa of all students in Vth SEM CS is 8.416

2. Find the count of all students who live in Address 560072

```
select count(students.pincode) as Count from students
where students.pincode = "560072" ;
```

Showing rows 0 - 0 (1 total, Query took 0.0002 seconds.)

```
select count(students.pincode) as Count from students where students.pincode = "560072";
```

☐ Profiling [ [Edit inline](#) ] [ [Edit](#) ] [ [Explain SQL](#) ] [ [Create PHP code](#) ] [ [Refresh](#) ]

☐ Show all | Number of rows: 25 | Filter rows:

Extra options

Count
6

There are 6 students in area 560072



### 3. Find Count of Number of students who have taken any mini Course

```
SELECT COUNT(courseenrolls.studentRegno) as count from courseenrolls
where courseenrolls.level = "402";
```

Your SQL query has been executed successfully.

```
SELECT COUNT(courseenrolls.studentRegno) as count from courseenrolls where courseenrolls.level = "402";
```

☐ Profiling [ [Edit inline](#) ] [ [Edit](#) ] [ [Explain SQL](#) ] [ [Create PHP code](#) ] [ [Refresh](#) ]

Extra options

count
16

There are 16 students who have taken one or more mini courses

### 4. Find total number of seats available across all courses.

```
SELECT SUM(course.noofSeats) as Sum from course;
```

✓ Showing rows 0 - 0 (1 total, Query took 0.0001 seconds.)

```
SELECT SUM(course.noofSeats) as Sum from course;
```

☐ Profiling [ [Edit inline](#) ] [ [Edit](#) ] [ [Explain SQL](#) ] [ [Create PHP code](#) ] [ [Refresh](#) ]

☐ Show all | Number of rows: 25 ▼ Filter rows:

Extra options

Sum
85

There are 85 seats available across all courses

### 5. Find Maximum and Minimum cgpa of all students in III Semester

```
SELECT max(students.cgpa) as MAX ,
min(students.cgpa) as MIN from students
where students.semester="III SEMESTER";
```

✓ Showing rows 0 - 0 (1 total, Query took 0.0002 seconds.)

```
SELECT max(students.cgpa) as MAX , min(students.cgpa) as MIN from students where students.semester="III SEMESTER";
```

☐ Profiling [ [Edit inline](#) ] [ [Edit](#) ] [ [Explain SQL](#) ] [ [Create PHP code](#) ] [ [Refresh](#) ]

☐ Show all | Number of rows: 25 ▼ Filter rows:

Extra options

MAX	MIN
9.50	5.00

The maximum cgpa is 9.5 and minimum is 5

## c. SET Operators

1. Find all courses which have no students enrolled in them

```
SELECT course.id, course.courseName from course
where course.id not in (
SELECT courseenrolls.course from courseenrolls);
```

Showing rows 0 - 0 (1 total, Query took 0.0007 seconds.)

```
SELECT course.id, course.courseName from course where course.id not in ( SELECT courseenrolls.course from courseenrolls);
```

☐ Profiling [ Edit inline ] [ Edit ] [ Explain SQL ] [ Create PHP code ] [ Refresh ]

☐ Show all | Number of rows: 25 | Filter rows: Search this table

Extra options

	id	courseName
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	111	Big Data

The course Big Data has no one enrolled in it

2. Find all courses who have number of seats as 5

```
select courseenrolls.course from courseenrolls
except
select course.id from course where course.noofSeats=5;
```

Showing rows 0 - 4 (5 total, Query took 0.0004 seconds.)

```
select courseenrolls.course from courseenrolls except select course.id from course where course.noofSeats=5;
```

☐ Profiling [ Edit inline ] [ Edit ] [ Explain SQL ] [ Create PHP code ] [ Refresh ]

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

Extra options

course
102
104
106
110
108

These are the courses with number of seats as 5

### 3. Find all students who have taken any summer course

```
select students.StudentRegno from students
UNION
SELECT courseenrolls.studentRegno from courseenrolls where courseenrolls.level=403;
```

✓ Showing rows 0 - 25 (26 total, Query took 0.0006 seconds.)

```
select students.StudentRegno from students UNION SELECT courseenrolls.studentRegno from courseenrolls where courseenrolls.level=403;
```

☐ Profiling [ [Edit inline](#) ] [ [Edit](#) ] [ [Explain SQL](#) ] [ [Create PHP code](#) ] [ [Refresh](#) ]

☐ Show all | Number of rows: 250 ▼ Filter rows:  Sort by key: None ▼

Extra options

StudentRegno

UG20BT101

UG20BT102

UG20BT103

UG20BT104

UG20BT105

UG20CS101

UG20CS102

UG20CS103

UG20CS104

UG20CS105

UG20CS106

UG20EE101

UG20EE102

UG20EE103

UG20EE104

UG20EE105

UG21CS101

UG21CS102

UG21CS103

Console

## d. Functions and Procedure

1. Following is a function to find if a student is eligible for placements or not based on a pre-defined cut off.

```
DELIMITER $$
create function cutoff_qualified(cgpa decimal(10,2))
returns varchar(40)
DETERMINISTIC
begin
if cgpa > 8.40 THEN
RETURN("Student is eligible for placements");
ELSE
RETURN("Student is not eligible for placements");
end if;
end $$
```

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0050 seconds.)

```
create function cutoff_qualified(cgpa decimal(10,2)) returns varchar(20) DETERMINISTIC begin if cgpa > 8.40 THEN RETURN("Student is eligible for placements"); ELSE RETURN("Student is not eligible for placements"); end if; end;
```

[Edit inline] [Edit] [Create PHP code]

```
SELECT students.StudentRegno , students.studentName , students.department ,
students.DOB , students.cgpa , cutoff_qualified(students.cgpa)
from students where students.semester = "V SEMESTER";
```

✓ Showing rows 0 - 15 (16 total. Query took 0.0007 seconds.)

```
SELECT students.StudentRegno , students.studentName , students.department , students.DOB , students.cgpa , cutoff_qualified(students.cgpa) from students where students.semester = "V SEMESTER";
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 100 | Filter rows: Search this table | Sort by key: None

Extra options

<div><div><div></div><div></div><div></div></div></div>		StudentRegno	studentName	department	DOB	cgpa	cutoff_qualified(students.cgpa)	
<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	UG20BT101	Pranav PA	Bio Technology	2002-10-23	9.50	Student is eligible for placements
<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	UG20BT102	Pranjal G	Bio Technology	2002-05-03	10.00	Student is eligible for placements
<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	UG20BT103	Girish K	Bio Technology	2002-11-20	9.50	Student is eligible for placements
<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	UG20BT104	Phaneesh R	Bio Technology	2002-07-26	9.25	Student is eligible for placements
<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	UG20BT105	Amitram A	Bio Technology	2002-02-28	7.25	Student is not eligible for placements
<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	UG20CS101	Shashank S	Computer Science	2002-06-22	8.50	Student is eligible for placements
<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	UG20CS102	Siddarth MP	Computer Science	2002-05-14	8.75	Student is eligible for placements
<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	UG20CS103	Shuchith BU	Computer Science	2002-03-03	9.00	Student is eligible for placements
<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	UG20CS104	Sankalp Dev	Computer Science	2002-05-04	7.25	Student is not eligible for placements
<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	UG20CS105	Shyam K	Computer Science	2002-08-09	8.25	Student is not eligible for placements
<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	UG20CS106	Shishira O	Computer Science	0000-00-00	8.75	Student is eligible for placements
<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	UG20EE101	Sameer K	Electrical	2002-05-06	8.50	Student is eligible for placements
<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	UG20EE102	Amogh N	Electrical	2002-04-05	9.75	Student is eligible for placements
<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	UG20EE103	Harsha HL	Electrical	2002-03-09	6.25	Student is not eligible for placements
<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	UG20EE104	Ritvik J	Electrical	2002-12-11	6.75	Student is not eligible for placements
<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	<div><div><div></div><div></div><div></div></div></div>	UG20EE105	Yashas V	Electrical	2002-11-12	8.75	Student is eligible for placements

- Following is a Procedure to calculate the age of the student when the date of birth is given. Update the column named age in the student table.

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0003 seconds.)

```
alter table students add COLUMN age int;
```

[\[ Edit inline \]](#) [\[ Edit \]](#) [\[ Create PHP code \]](#)

```
DELIMITER $$
CREATE PROCEDURE calculate_age(IN StudentRegno varchar(255), OUT message varchar(100))
BEGIN
DECLARE age int;
DECLARE b_date date;
set age = (SELECT age FROM students WHERE students.StudentRegno=StudentRegno);
set b_date = (SELECT DOB FROM students WHERE students.StudentRegno=StudentRegno);
IF age>0 THEN
set message = CONCAT('AGE- ', CONVERT(age,char),(' Age has been already
calculated'));
ELSE
set age = DATE_FORMAT(FROM_DAYS(TO_DAYS(NOW())-TO_DAYS(b_date)),'%Y')+0;
update students
set age=age
WHERE students.StudentRegno=StudentRegno;
set message = CONCAT('AGE- ', CONVERT(age,char),' Age has been currently
calculated and updated');
END IF;
END $$
DELIMITER ;
```

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0077 seconds.)

```
CREATE PROCEDURE calculate_age(IN StudentRegno varchar(255), OUT message varchar(100)) BEGIN DECLARE age int; DECLARE b_date date; set age = (SELECT age FROM StudentRegno WHERE students.StudentRegno=StudentRegno); set b_date = (SELECT DOB FROM user_420 WHERE
students.StudentRegno=StudentRegno); IF age=0 THEN set message = CONCAT('AGE- ', CONVERT(age,char),(' Age has been already calculated')); ELSE set age = DATE_FORMAT(FROM_DAYS(TO_DAYS(NOW())-TO_DAYS(b_date)),'%Y')+0; update students set Age=age WHERE
students.StudentRegno=StudentRegno; set message = CONCAT('AGE- ', CONVERT(age,char),' Age has been currently calculated and updated'); END IF; END;
```

[\[ Edit inline \]](#) [\[ Edit \]](#) [\[ Create PHP code \]](#)

Show query box

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0002 seconds.)

```
SET @p0='UG20CS101';
```

[ Edit inline ] [ Edit ] [ Create PHP code ]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0002 seconds.)

```
SET @p1='@M';
```

[ Edit inline ] [ Edit ] [ Create PHP code ]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0047 seconds.)

```
CALL calculate_age(@p0,@p1);
```

[ Edit inline ] [ Edit ] [ Create PHP code ]

⚠ Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available. ⓘ

✓ Showing rows 0 - 0 (1 total, Query took 0.0002 seconds.)

```
SELECT @p1 as 'message';
```

☐ Profiling [ Edit inline ] [ Edit ] [ Explain SQL ] [ Create PHP code ] [ Refresh ]

☐ Show all | Number of rows: 25 | Filter rows: Search this table

Extra options

message

AGE- 20 Age has been currently  
calculated and up...

```
SELECT * FROM `students`
```

☐ Profiling [ Edit inline ] [ Edit ] [ Explain SQL ] [ Create PHP code ] [ Refresh ]

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

Extra options

			StudentRegno	studentPhoto	password	studentName	pincode	department	semester	cgpa	creationdate	updateDate	DOB	age
<input type="checkbox"/>	Edit	Copy	Delete	UG20BT101	NULL	UG20BT101	Pranav PA	560072	Bio Technology	V SEMESTER	9.50	2022-11-17 14:40:53	2002-10-23	NULL
<input type="checkbox"/>	Edit	Copy	Delete	UG20BT102	NULL	UG20BT102	Pranjal G	560077	Bio Technology	V SEMESTER	10.00	2022-11-17 14:40:53	2002-05-03	NULL
<input type="checkbox"/>	Edit	Copy	Delete	UG20BT103	NULL	UG20BT103	Girish K	560079	Bio Technology	V SEMESTER	9.50	2022-11-17 14:40:53	2002-11-20	NULL
<input type="checkbox"/>	Edit	Copy	Delete	UG20BT104	NULL	UG20BT104	Phaneesh R	560070	Bio Technology	V SEMESTER	9.25	2022-11-17 14:40:53	2002-07-26	NULL
<input type="checkbox"/>	Edit	Copy	Delete	UG20BT105	NULL	UG20BT105	Amitram A	560073	Bio Technology	V SEMESTER	7.25	2022-11-17 14:40:53	2002-02-28	NULL
<input type="checkbox"/>	Edit	Copy	Delete	UG20CS101	NULL	UG20CS101	Shashank S	560072	Computer Science	V SEMESTER	8.50	2022-11-17 14:40:53	2002-06-22	20
<input type="checkbox"/>	Edit	Copy	Delete	UG20CS102	NULL	UG20CS102	Siddarth MP	560075	Computer Science	V SEMESTER	8.75	2022-11-17 14:40:53	2002-05-14	NULL
<input type="checkbox"/>	Edit	Copy	Delete	UG20CS103	NULL	UG20CS103	Shuchith BU	560078	Computer Science	V SEMESTER	9.00	2022-11-17 14:40:53	2002-03-03	NULL
<input type="checkbox"/>	Edit	Copy	Delete	UG20CS104	NULL	UG20CS104	Sankalp Dev	560072	Computer Science	V SEMESTER	7.25	2022-11-17 14:40:53	2002-05-04	NULL
<input type="checkbox"/>	Edit	Copy	Delete	UG20CS105	NULL	UG20CS105	Shyam K	560075	Computer Science	V SEMESTER	8.25	2022-11-17 14:40:53	2002-08-09	NULL
<input type="checkbox"/>	Edit	Copy	Delete	UG20CS106	NULL	UG20CS106	Shishira O	560072	Computer Science	V SEMESTER	8.75	2022-11-28 19:48:20	0000-00-00	NULL
<input type="checkbox"/>	Edit	Copy	Delete	UG20EE101	NULL	UG20EE101	Sameer K	560072	Electrical	V SEMESTER	8.50	2022-11-17 14:40:53	2002-05-06	NULL
<input type="checkbox"/>	Edit	Copy	Delete	UG20EE102	NULL	UG20EE102	Amogh H	560079	Electrical	V SEMESTER	9.75	2022-11-17 14:40:53	2002-04-05	NULL
<input type="checkbox"/>	Edit	Copy	Delete	UG20EE103	NULL	UG20EE103	Harsha HL	560078	Electrical	V SEMESTER	6.25	2022-11-17 14:40:53	2002-03-09	NULL

## e. Triggers and cursors

1. Backup table for students as deleting a student's info can be a huge mistake if the student is still in the university using triggers

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0004 seconds.)

```
create table backup_student like students;
```

[ Edit in ]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0099 seconds.)

```
create trigger backupStudent before delete on students for each row begin insert into backup_student  
select * from students where students.StudentRegno = OLD.StudentRegno; end;
```

[ Edit inline ] [ Edit ] [ Create PHP code ]

```
delimiter $$  
create trigger backupStudent  
before delete  
on students for each row  
begin  
    insert into backup_student select * from students where  
students.StudentRegno = OLD.StudentRegno;  
end $$;  
delimiter ;
```

Upon deleting a student

16	UG20EE106	Pavan K	560076	2022-11-24 09:12:17	Delete	Reset Password
17	UG21CS101	Sachin CH	560072	2022-11-17 14:40:53	Delete	Reset Password

Backup table:

✓ Showing rows 0 - 0 (1 total, Query took 0.0003 seconds.)

```
SELECT * FROM `backup_student`
```

☐ Profiling [ Edit inline ] [ Edit ] [ Explain SQL ] [ Create PHP code ] [ Refresh ]

☐ Show all | Number of rows: 25 | Filter rows: Search this table

Extra options

	StudentRegno	studentPhoto	password	studentName	pincode	department	semester	cgpa	creationdate	updatationDate
<input type="checkbox"/> Edit Copy Delete	UG20EE106	NULL	UG20EE106	Pavan K	560076	Computer Science	V SEMESTER	7.25	2022-11-24 09:12:17	

2. A cursor in order to backup the whole course enrollment information of all the students at once (using procedures).

```
create table backup_courseenrolls like courseenrolls;
```

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0005 seconds.)

```
create table backup_courseenrolls like courseenrolls;
```

[\[ Edit inline \]](#) [\[ Edit \]](#) [\[ Create PHP code \]](#)

```
DELIMITER //
CREATE PROCEDURE backup_enrolls()
BEGIN
    DECLARE done INT DEFAULT 0;
    DECLARE level,course,id INTEGER;
    DECLARE studentRegno VARCHAR(20);
    DECLARE enrollDate timestamp;
    DECLARE cur CURSOR FOR SELECT
courseenrolls.id,courseenrolls.studentRegno,courseenrolls.level,courseenrolls.course,cours
e enrolls.enrollDate FROM courseenrolls;
    DECLARE CONTINUE HANDLER FOR NOT FOUND SET done = 1;
    OPEN cur;
label: LOOP
    FETCH cur INTO id,studentRegno,level,course,enrollDate;
    INSERT INTO backup_courseenrolls VALUES( id,studentRegno,level,course,enrollDate);
    IF done = 1 THEN LEAVE label;
    END IF;
END LOOP;
    CLOSE cur;
END//
DELIMITER ;
```

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0111 seconds.)

```
CREATE PROCEDURE backup_enrolls() BEGIN DECLARE done INT DEFAULT 0; DECLARE level,course,id INTEGER; DECLARE studentRegno VARCHAR(20); DECLARE enrollDate timestamp; DECLARE cur CURSOR FOR SELECT
courseenrolls.id,courseenrolls.studentRegno,courseenrolls.level,courseenrolls.course,courseenrolls.enrollDate FROM courseenrolls; DECLARE CONTINUE HANDLER FOR NOT FOUND SET done = 1; OPEN cur; label: LOOP FETCH cur INTO id,studentRegno,level,course,enrollDate; INSERT INTO
backup_courseenrolls VALUES( id,studentRegno,level,course,enrollDate); IF done = 1 THEN LEAVE label; END IF; END LOOP; CLOSE cur; END;
```

[\[ Edit inline \]](#) [\[ Edit \]](#) [\[ Create PHP code \]](#)



	Name	Type	Returns	
<input type="checkbox"/>	backup_enrolls	PROCEDURE		Edit  Execute  Export  Drop
<input type="checkbox"/>	calculate_age	PROCEDURE		Edit  Execute  Export  Drop
<input type="checkbox"/>	cutoff_qualified	FUNCTION	varchar(40)	Edit  Execute  Export  Drop

```
call backup_courseenrolls();
```

✓ Showing rows 0 - 74 (75 total, Query took 0.0005 seconds.)

```
SELECT * FROM `backup_courseenrolls`
```

☐ Profiling [ [Edit inline](#) ] [ [Edit](#) ] [ [Explain SQL](#) ] [ [Create PHP code](#) ] [ [Refresh](#) ]

☐ Show all | Number of rows:  Filter rows:  Sort by key:

Extra options

					id	studentRegno	level	course	enrollDate
<input type="checkbox"/>					201	UG20CS101	401	101	2022-11-18 11:56:17
<input type="checkbox"/>					202	UG20CS101	401	102	2022-11-18 11:56:17
<input type="checkbox"/>					203	UG20CS101	404	109	2022-11-18 11:56:17
<input type="checkbox"/>					204	UG20CS102	401	101	2022-11-18 11:56:17
<input type="checkbox"/>					205	UG20CS102	401	102	2022-11-18 11:56:17
<input type="checkbox"/>					206	UG20CS102	402	109	2022-11-18 11:56:17
<input type="checkbox"/>					207	UG20CS103	401	101	2022-11-18 11:56:17
<input type="checkbox"/>					208	UG20CS103	401	102	2022-11-18 11:56:17
<input type="checkbox"/>					209	UG20CS103	401	103	2022-11-18 11:56:17
<input type="checkbox"/>					210	UG20CS104	401	102	2022-11-18 11:56:17
<input type="checkbox"/>					211	UG20CS104	402	104	2022-11-18 11:56:17
<input type="checkbox"/>					212	UG20CS104	402	105	2022-11-18 11:56:17
<input type="checkbox"/>					213	UG20CS105	401	102	2022-11-18 11:56:17
<input type="checkbox"/>					214	UG20CS105	402	104	2022-11-18 11:56:17
<input type="checkbox"/>					215	UG20CS105	402	105	2022-11-18 11:56:17
<input type="checkbox"/>					216	UG20EE101	401	104	2022-11-18 11:56:17
<input type="checkbox"/>					217	UG20EE101	401	105	2022-11-18 11:56:17
<input type="checkbox"/>					218	UG20EE101	401	106	2022-11-18 11:56:17
<input type="checkbox"/>					219	UG20EE102	401	104	2022-11-18 11:56:17
<input type="checkbox"/>					220	UG20EE102	403	110	2022-11-18 11:56:17

Console

## f. Higher Level Programming


### Front-End

## Login Page (separate views for admins and students)

← → ↻

localhost/Online%20Course%20Registration/admin/index.php

ONLINE COURSE  
REGISTRATION




PLEASE LOGIN TO ENTER

Enter Username :

admin

Enter Password :

\*\*\*\*\*

 Log Me In


This is a Mini Project done by PES Student Shubham S, SRN:PES1UG20CS420  
Some of its features are given below :

- Ability for students to enroll for available courses
- Ability for admins to create courses and departments
- Ability for admins to manage and alter student information
- Ability for both admins and students to print information

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## Admin View

ONLINE COURSE  
REGISTRATION



SEMESTER DEPARTMENT COURSE REGISTRATION MANAGE STUDENTS ENROLL HISTORY STUDENT LOGS LOGOUT

STUDENTS

Student record deleted !!

Manage Students					
#	Reg No	Student Name	Pincode	Reg Date	Action
1	UG20BT101	Pranav PA	560072	2022-11-17 14:40:53	<div>DeleteReset Password</div>
2	UG20BT102	Pranjal G	560077	2022-11-17 14:40:53	<div>DeleteReset Password</div>
3	UG20BT103	Girish K	560079	2022-11-17 14:40:53	<div>DeleteReset Password</div>
4	UG20BT104	Phaneesh R	560070	2022-11-17 14:40:53	<div>DeleteReset Password</div>
5	UG20BT105	Amitram A	560073	2022-11-17 14:40:53	<div>DeleteReset Password</div>
6	UG20CS101	Shashank S	560072	2022-11-17 14:40:53	<div>DeleteReset Password</div>
7	UG20CS102	Siddarth MP	560075	2022-11-17 14:40:53	<div>DeleteReset Password</div>
8	UG20CS103	Shuchith BU	560078	2022-11-17 14:40:53	<div>DeleteReset Password</div>

## USER LOG

User Log						
#	Student Reg no	IP	Login Time	Logout Time	Status	
1	UG21CS103	::1	2022-11-18 11:01:12	18-11-2022 11:03:10 AM	1	
2	UG21CS103	::1	2022-11-18 11:03:16		1	
3	UE20CS106	::1	2022-11-18 11:05:55		1	
4	12345	::1	2022-11-18 12:40:37	18-11-2022 12:41:26 PM	1	
5	UG21CS103	::1	2022-11-18 12:41:34	18-11-2022 12:41:50 PM	1	
6	UG21CS103	::1	2022-11-18 14:17:37	18-11-2022 02:31:53 PM	1	
7	UG20BT101	::1	2022-11-18 14:47:15		1	
8	UG20BT101	::1	2022-11-23 13:13:43		1	
9	UG20BT101	::1	2022-11-23 23:35:06	24-11-2022 09:00:28 AM	1	
10	UG21CS103	::1	2022-11-24 09:02:34		1	

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## COURSE

Course

Course Code

Course Code

Course Name

Course Name

Seat limit

Seat limit

Submit

Manage Course						
#	Course Code	Course Name	Seat limit	Creation Date	Action	
1	CS301	Database Management System	5	2022-11-17 14:45:33	<a href="#">Edit</a>	<a href="#">Delete</a>
2	CS302	Machine Intelligence	10	2022-11-17 14:45:33	<a href="#">Edit</a>	<a href="#">Delete</a>
3	CS303	Software Engineering	5	2022-11-17 14:45:33	<a href="#">Edit</a>	<a href="#">Delete</a>
4	EE301	Digital Design	10	2022-11-17 14:45:33	<a href="#">Edit</a>	<a href="#">Delete</a>
5	EE302	Computer Organisation	5	2022-11-17 14:45:33	<a href="#">Edit</a>	<a href="#">Delete</a>
6	EE303	Computer Architecture	10	2022-11-17 14:45:33	<a href="#">Edit</a>	<a href="#">Delete</a>
7	BT301	BioMedical Engineering	5	2022-11-17 14:45:33	<a href="#">Edit</a>	<a href="#">Delete</a>
8	BT302	Bio Inspired Engineering	10	2022-11-17 14:45:33	<a href="#">Edit</a>	<a href="#">Delete</a>

# Student View

Welcome: Pranav PA   Last Login::1 at 2022-11-23 13:13:43

ONLINE COURSE  
REGISTRATION

ENROLL FOR COURSE   ENROLL HISTORY   MY PROFILE   CHANGE PASSWORD   LOGOUT

## MY PROFILE

Student Registration

Student Name

Pranav PA

Student Reg No

UG20BT101

Password

UG20BT101

Pincode

560072

CGPA

9.50

ENROLL FOR COURSE   ENROLL HISTORY   MY PROFILE   CHANGE PASSWORD   LOGOUT

## ENROLL HISTORY

Enroll History							
#	Student Name	Student Register Number	Course Name	Department	Level	Semester	Enrollment Date
1	Pranav PA	UG20BT101	BioMedical Engineering	Bio Technology	Regular Course	V SEMESTER	2022-11-18 11:56:17
2	Pranav PA	UG20BT101	Bio Inspired Engineering	Bio Technology	Regular Course	V SEMESTER	2022-11-18 11:56:17
3	Pranav PA	UG20BT101	Rotational Dynamics	Bio Technology	Summer Course	V SEMESTER	2022-11-18 11:56:17

## STUDENT PASSWORD VERIFICATION

password Verification

Enter password

Verify

## Query Runner

Menu

Query

### Online Course Registration System Query runner

Run your query

Query:

```
select studentRegno,studentName,department from students where cgpa > 9.0;
```

Execute

	studentRegno	studentName	department
0	UG20BT101	Pranav PA	Bio Technology
1	UG20BT102	Pranjal G	Bio Technology
2	UG20BT103	Girish K	Bio Technology
3	UG20BT104	Phaneesh R	Bio Technology
4	UG20EE102	Amogh N	Electrical
5	UG21CS103	Srujan TM	Computer Science
6	UG21CS104	Manoj J	Computer Science

# Bar Graphs

These Graphs show the average cgpa for per each department and each semester

