# College_Database

➔*content:*

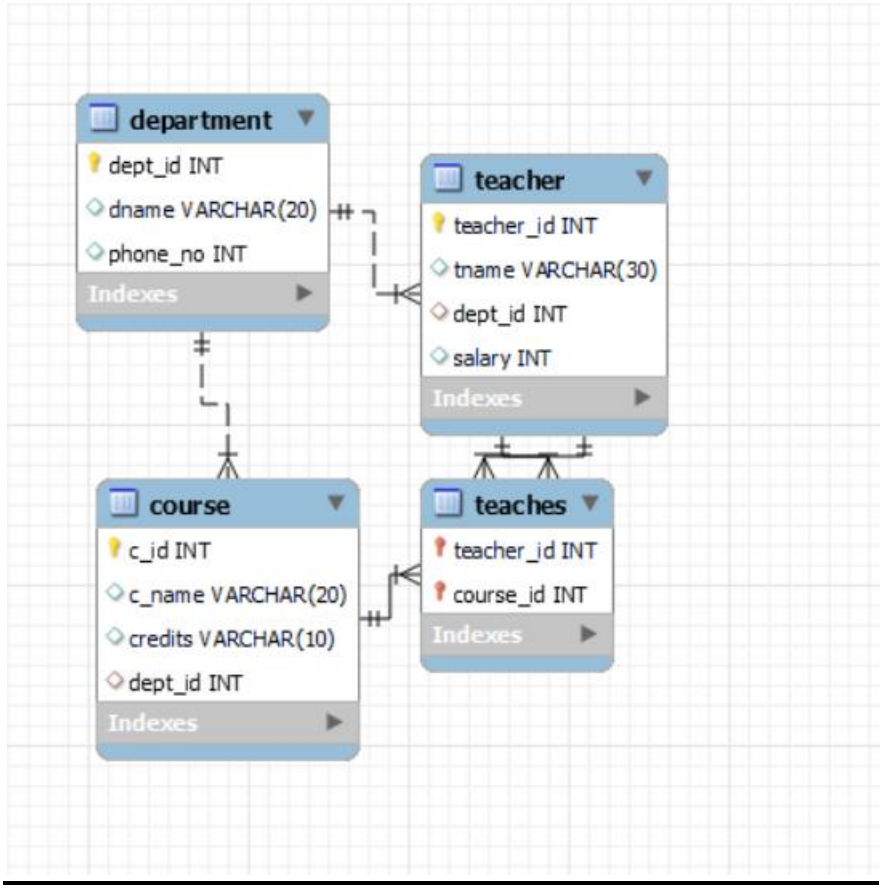
*ER-diagram*

*Tables*

*Questions*

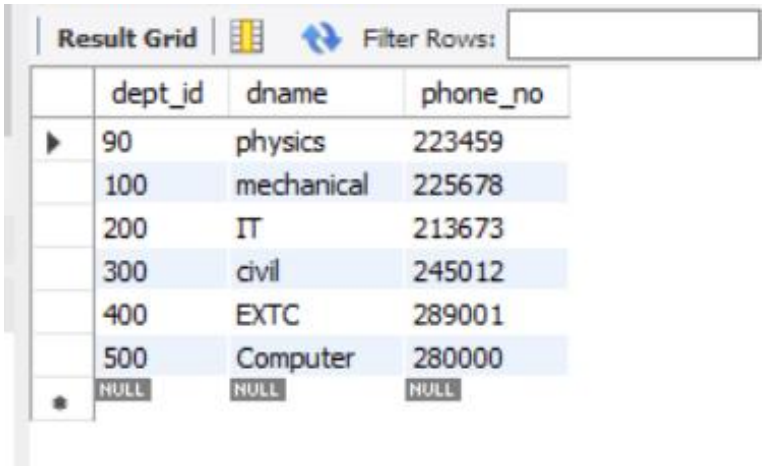
*Queries*

## ➔ER_Diagram



## ➔Tables:

*1:department:*




| dept_id | dname | phone_no |
|---|---|---|
| 90 | physics | 223459 |
| 100 | mechanical | 225678 |
| 200 | IT | 213673 |
| 300 | civil | 245012 |
| 400 | EXTC | 289001 |
| 500 | Computer | 280000 |
| NULL | NULL | NULL |

*2:Teacher:*

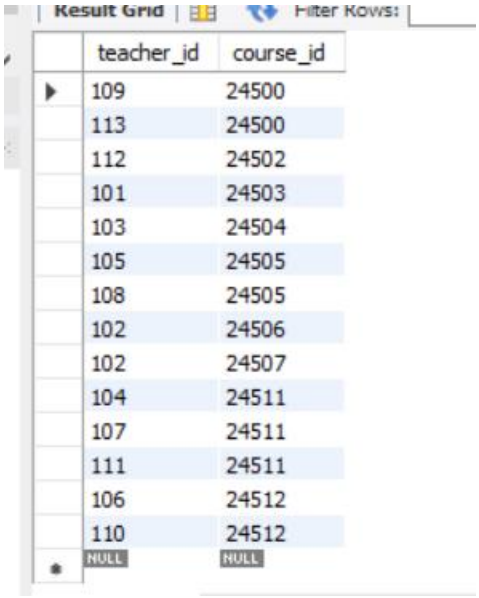
Result Grid | Filter Rows: | Edit:

| teacher_id | tname | dept_id | salary |
|---|---|---|---|
| 101 | ajay | 90 | 50000 |
| 102 | sameer | 400 | 55000 |
| 103 | shaily | 200 | 65000 |
| 104 | aman | 500 | 85000 |
| 105 | ahruti | 200 | 50000 |
| 106 | amira | 500 | 95000 |
| 107 | shirin | 500 | 80000 |
| 108 | leena | 200 | 85000 |
| 109 | sonal | 300 | 70000 |
| 110 | apeksha | 500 | 71000 |
| 111 | ankita | 500 | 65000 |
| 112 | selina | 300 | 60000 |
| 113 | pranali | 300 | 70000 |
| NULL | NULL | NULL | NULL |

## *3:Course:*

| c_id | c_name | credits | dept_id |
|---|---|---|---|
| 24500 | BE(CIVIL) | 5/sem=40 | 300 |
| 24501 | B.COM | 5/sem=30 | 90 |
| 24502 | CONSTRUCTION.MANGT | 5/sem=20 | 300 |
| 24503 | M.COM | 5/sem=20 | 90 |
| 24504 | BCA | 5/sem=30 | 200 |
| 24505 | MCA | 5/sem=30 | 200 |
| 24506 | BE(e&tc) | 5/sem=40 | 400 |
| 24507 | Automation | 5/sem=20 | 400 |
| 24508 | BE(mech) | 5/sem=40 | 100 |
| 24509 | ME(mech) | 5/sem=20 | 100 |
| 24510 | B.COM | 5/sem=30 | 90 |
| 24511 | datascience | 5/sem=30 | 500 |
| 24512 | RDBMS | 5/sem=30 | 500 |
| NULL | NULL | NULL | NULL |

## *4:Teaches:*



Result Grid | Filter Rows:

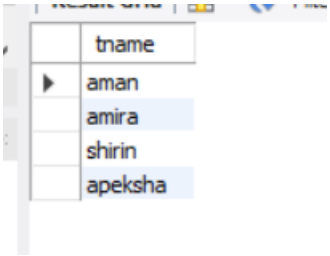
| teacher_id | course_id |
|---|---|
| 109 | 24500 |
| 113 | 24500 |
| 112 | 24502 |
| 101 | 24503 |
| 103 | 24504 |
| 105 | 24505 |
| 108 | 24505 |
| 102 | 24506 |
| 102 | 24507 |
| 104 | 24511 |
| 107 | 24511 |
| 111 | 24511 |
| 106 | 24512 |
| 110 | 24512 |
| NULL | NULL |

## ➔**Questions:**

1)

```
/*find the names of all teachers in computer department who have salary greater than 70000*/
select t.tname
from teacher t,department d
where t.dept_id=d.dept_id
and d.dname="Computer"
and t.salary>70000;
```

Output:



| tname |
| --- |
| aman |
| amira |
| shirin |
| apeksha |

2)

```
/*find the names of teachers who are working in IT department*/
select t.tname
from teacher t,department d
where t.dept_id=d.dept_id
and dname="IT";
```

Output:

Result Grid

| | tname |
|---|---|
| ▶ | shaily |
| | ahruti |
| | leena |

3)

```
/*find record of teacher name "ajay" and "sameer" using in construct*/
select * from teacher t,department d
where t.tname in("ajay","sameer")
and t.dept_id=d.dept_id;
```

Output:

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

| | teacher_id | tname | dept_id | salary | dept_id | dname | phone_no |
|---|---|---|---|---|---|---|---|
| ▶ | 101 | ajay | 90 | 50000 | 90 | physics | 223459 |
| | 102 | sameer | 400 | 55000 | 400 | EXTC | 289001 |

## ➔Queries:

create database college;

```
use college;

create table department(dept_id int primary key,
dname varchar(20),
phone_no int unique);

create table teacher(teacher_id int primary key,
tname varchar(30),
dept_id int,
foreign key(dept_id) references department(dept_id));

alter table teacher add salary int;

desc teacher;

create table course(c_id int primary key,
c_name varchar(20),
credits varchar(10),
dept_id int,
foreign key(dept_id) references department(dept_id)
);
```

```
insert into department(dept_id,dname,phone_no) values

(100,"mechanical",225678);


insert into department(dept_id,dname,phone_no) values (90,"physics",223459);

insert into department(dept_id,dname,phone_no) values (200,"IT",213673);

insert into department(dept_id,dname,phone_no) values (300,"civil",245012);

insert into department(dept_id,dname,phone_no) values (400,"EXTC",289001);

insert into department(dept_id,dname,phone_no) values
(500,"Computer",280000);

select * from department;


insert into teacher(teacher_id,tname,dept_id,salary) values
(101,"ajay",90,50000);

insert into teacher(teacher_id,tname,dept_id,salary) values
(102,"sameer",400,55000);

insert into teacher(teacher_id,tname,dept_id,salary) values
(105,"ahruti",200,50000);

insert into teacher(teacher_id,tname,dept_id,salary) values
(103,"shaily",200,65000);

insert into teacher(teacher_id,tname,dept_id,salary) values
(104,"aman",500,85000);

insert into teacher(teacher_id,tname,dept_id,salary) values
(106,"amira",500,95000);
```

```
insert into teacher(teacher_id,tname,dept_id,salary) values
(107,"shirin",500,80000);

insert into teacher(teacher_id,tname,dept_id,salary) values
(108,"leena",200,85000);

insert into teacher(teacher_id,tname,dept_id,salary) values
(109,"sonal",300,70000);

insert into teacher(teacher_id,tname,dept_id,salary) values
(110,"apeksha",500,71000);

insert into teacher(teacher_id,tname,dept_id,salary) values
(111,"ankita",500,65000);

insert into teacher(teacher_id,tname,dept_id,salary) values
(112,"selina",300,60000);

insert into teacher(teacher_id,tname,dept_id,salary) values
(113,"pranali",300,70000);



insert into course(c_id,c_name,credits,dept_id) values

(24500,"BE(CIVIL)","5/sem=40",300);


insert into course(c_id,c_name,credits,dept_id) values

(24501,"B.COM","5/sem=30",90);

insert into course(c_id,c_name,credits,dept_id) values

(24502,"CONSTRUCTION.MANGT","5/sem=20",300);

insert into course(c_id,c_name,credits,dept_id) values
```

```
(24504,"BCA","5/sem=30",200);

insert into course(c_id,c_name,credits,dept_id) values

(24503,"M.COM","5/sem=20",90);

insert into course(c_id,c_name,credits,dept_id) values

(24506,"BE(e&tc)","5/sem=40",400);

insert into course(c_id,c_name,credits,dept_id) values

(24505,"MCA","5/sem=30",200);

insert into course(c_id,c_name,credits,dept_id) values

(24508,"BE(mech)","5/sem=40",100);

insert into course(c_id,c_name,credits,dept_id) values

(24507,"Automation","5/sem=20",400);

insert into course(c_id,c_name,credits,dept_id) values

(24509,"ME(mech)","5/sem=20",100);

select * from course;

insert into course(c_id,c_name,credits,dept_id) values

(24510,"B.COM","5/sem=30",90);

select * from course;

insert into course(c_id,c_name,credits,dept_id) values
(24511,"datascience","5/sem=30",500);

insert into course(c_id,c_name,credits,dept_id) values
(24512,"RDBMS","5/sem=30",500);
```

```
create table teaches(teacher_id int,course_id int);

alter table teaches add constraint c11 primary key(teacher_id,course_id);

 alter table teaches add constraint c022 foreign key(teacher_id) references
teacher(teacher_id);

 alter table teaches add constraint ccourse1 foreign key(course_id) references
course(c_id);



insert into teaches(teacher_id,course_id) values (101,24503);

insert into teaches(teacher_id,course_id) values (102,24506);

insert into teaches(teacher_id,course_id) values (102,24507);

insert into teaches(teacher_id,course_id) values (103,24504);

insert into teaches(teacher_id,course_id) values (105,24505);

insert into teaches(teacher_id,course_id) values (104,24511);

insert into teaches(teacher_id,course_id) values (106,24512);

insert into teaches(teacher_id,course_id) values (107,24511);

insert into teaches(teacher_id,course_id) values (110,24512);

insert into teaches(teacher_id,course_id) values (111,24511);

insert into teaches(teacher_id,course_id) values (107,24511);

insert into teaches(teacher_id,course_id) values (109,24500);

insert into teaches(teacher_id,course_id) values (112,24502);

insert into teaches(teacher_id,course_id) values (113,24500);
```

```
insert into teaches(teacher_id,course_id) values (108,24505);


select * from department;

select * from teacher;

select * from course;

select * from teaches;



/*find the names of all teachers in computer department who have salary greater than 70000*/

select t.tname

from teacher t,department d

where t.dept_id=d.dept_id

and d.dname="Computer"

and t.salary>70000;



/*find the names of teachers who are working in IT department*/

select t.tname

from teacher t,department d

where t.dept_id=d.dept_id

and dname="IT";
```

```
/*find record of teacher name "ajay" and "sameer" using in construct*/

select * from teacher t,department d

where t.tname in("ajay","sameer")

and t.dept_id=d.dept_id;
```