INNER JOIN

1. Create table student with attributes sid, sname, course, sem

```
1 create table student(sid int primary key,sname varchar(50),course varchar(20),sem int(10));
2 insert into student values(39, "mahesh", "McA",3);
3 insert into student values(23, "manu", "M.COM",4);
insert into student values(33, "manu", "M.COM",4);
insert into student values(38, "maya", "M.COM",3);
6 insert into student values(38, "maya", "M.COM",3);
7 select * from student;

Output Input Comments 0

sid sname course sem
50 mahesh MCA 3
22 bibin MBA 2
23 manu M.COM 4
33 abi MBA 1
38 maya M.COM 3
```

2. Create another table book with attributes bid ,bname,author

```
create table student(sid int primary key,sname varchar(50),course varchar(20),sem int(10));

insert into student values(50, "mahesh, "MCA",3);

insert into student values(22, "manu", "M.COM",4);

insert into student values(33, "manu", "M.COM",4);

insert into student values(33, "maya", "M.COM",4);

create table book(bid int primary key,bname varchar(50),author varchar(20));

insert into book values(501, java", "robin");

insert into book values(224, 'linux, "harri');

insert into book values(233, 'science", gilbert");

insert into book values(333, 'science", gilbert");

insert into book values(333, 'computer', 'swamy');

select * from book;

Save and Run

Output Input Comments ①

bid bname author

joi java robin

lid bname author

joi java robin

lid bname author

soil java robin

lid linux harri

238 GK hitler

333 science gilbert

somputer swamy
```

3. Create table issue bid, sid, issue, date

4. Display the name of the books issued on 2015-10-31

5. Find the details of student who took the book java

```
create table student(sid int primary key,sname varchar(50),course varchar(20),sem int(10));

insert into student values(50, mahesh; "McA",3);

insert into student values(22, mahesh; "McA",3);

insert into student values(22, manu, "McCM",3);

insert into student values(31, manu, "McCM",3);

insert into student values(33, manu, "McCM",3);

create table book(bid int primary key,bname varchar(50),author varchar(20));

insert into book values(38, "manu, "McCM",3);

reate table book(bid int primary key,bname varchar(50),author varchar(20));

insert into book values(50, "java", "mobin");

insert into book values(38, "computer");

insert into book values(38, "computer");

reate table issue(bid int,sid int,issuedate date,primary key(bid,sid),foreign key(bid)references book(bid),foreign key(sid)references student(sid));

insert into issue values(380, "computer");

create table issue(bid int,sid int,issuedate date,primary key(bid,sid),foreign key(bid)references book(bid),foreign key(sid)references student(sid));

insert into issue values(383, "computer");

create table issue(bid int,sid int,issuedate date,primary key(bid,sid),foreign key(bid)references book(bid),foreign key(sid)references student(sid));

insert into issue values(383, "2, "2003-1-25");

insert into issue values(333, 2, "2003-1-25");

insert into issue values(333, 2, "2003-1-25");

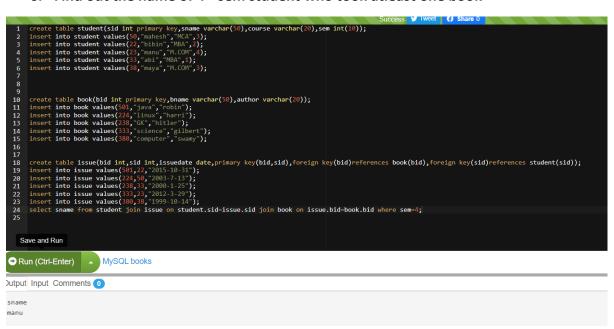
insert into issue values(333, 2, "1000-1-25");

insert into issue values(33, "1000-1-25");

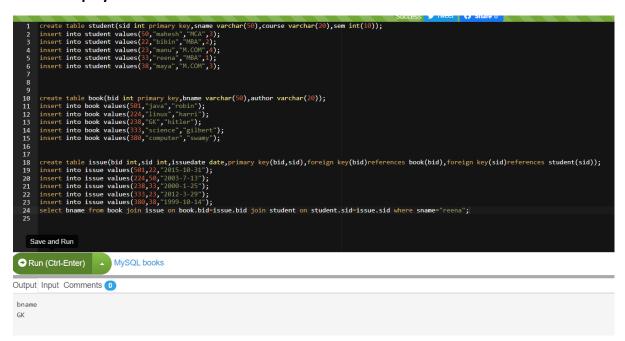
insert into issue values(33, "1000-1-25");

insert into issue values(33, "10
```

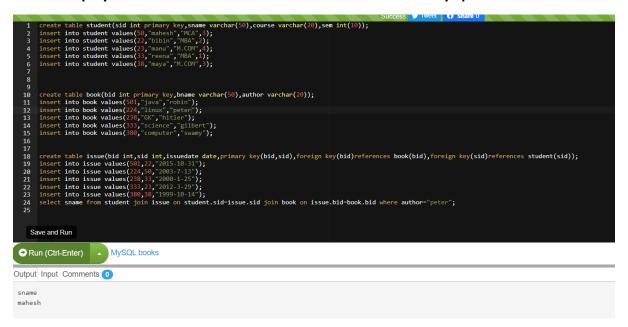
6. Find out the name of 4th sem student who took atleast one book



7. Display the name of book issued to "reena"



8. Display the name of student who took the book written by "peter"



OUTER JOIN

Create a table instructor(id,name,dept_name,salary) other table teaches(id,course_id,) and perform the following outer join operation.

```
Succerciant table instructor(id int primary key,name varchar(50),dept_name varchar(20),salary int); insert into instructor values(50, "mahesh", "MCA",50000); insert into instructor values(22, "bibin", "MBA",45000); insert into instructor values(23, "manu", "M.COM",30000); select * from instructor;
  Output Input Comments 0
                 name
                                 dept name
                                                                    salary
         mahesh MCA 50000
bibin MBA 45000
manu M.COM 30000
 22
 23
           create table instructor(id int primary key,name varchar(50),dept_name varchar(20),salary int); insert into instructor values(50, "mahesh", "MCA",50000); insert into instructor values(22, "bibin", "MBA",45000); insert into instructor values(23, "manu", "M.COM",30000);
          create table teaches(id int primary key,course_id int,foreign key(id)references instructor(id));
insert into teaches values(50,101);
insert into teaches values(22,102);
insert into teaches values(23,103);
select * from teaches;
    10
11
       Save and Run
                                       MySQL books
  → Run (Ctrl-Enter)
Output Input Comments 0
 id
                course_id
 50
              101
              102
                103
 23
```

a) Left outer join

```
create table instructor(id int primary key,name varchar(50),dept_name varchar(20),salary int); insert into instructor values(50,"mahesh","MCA",50000); insert into instructor values(22,"bibin","MBA",45000); insert into instructor values(33,"manu","MLCOM",30000); insert into instructor values(33,"manu","MBA",45000); insert into instructor values(33,"maya","MBA",45000);
            create table teaches(id int primary key,course_id int,foreign key(id)references instructor(id)); insert into teaches values(50,101); insert into teaches values(22,102); insert into teaches values(22,102);
            insert into teaches values(2
insert into teaches values(2
insert into teaches values(2
insert into teaches values(2
insert into teaches values(4
    10
11
12
13
14
15
            select teaches.id, teaches.course id, instructor.id, instructor.dept name from teaches left join instructor on teaches.id=instructor.id;
  Run (Ctrl-Enter) A MySQL books
Output Input Comments 0
                 course_id
 id
                                                 id
                                                                 dept_name
 50
                101 50
                                                 MCA
 22
                102
                               22
                                                 MRΔ
 23
                103
                               23
                                                  M.COM
                104 NULL
105 NULL
 25
                                                  NULL
 45
                                                  NULL
```

b) Right outer join

```
table instructor(id int primary key, name
                                                                                           varchar(50),dept_name varchar(20),salary int);
          insert into instructor values(50, "mahesh", "MCA", 50000); insert into instructor values(22, "bibbin", "MBA", 45000); insert into instructor values(23, "manu", "M.COM", 30000); insert into instructor values(33, "abi", "MBA", 45000); insert into instructor values(38, "maya", "M.COM", 30000);
           create table teaches(id int primary key,course_id int,foreign key(id)references instructor(id));
          insert into teaches values(22,102);
insert into teaches values(22,103);
insert into teaches values(22,103);
insert into teaches values(25,104);
insert into teaches values(25,105);
select teaches.id,teaches.course_id,instructor.id,instructor.dept_name from teaches right join instructor on teaches.id-instructor.id;
    10
11
12
13
14
15
  Run (Ctrl-Enter) MySQL books
Output Input Comments 0
 id
                                           id
               course_id
                                                         dept_name
 50
               101 50
                                          MCA
 22
               102
                             22
                                            MBA
 23
               103
                           23
                                            M.COM
                         33
38
 NULL
              NULL
                                            MBA
            NULL
 NULL
                                            M.COM
```

c) Full outer join

```
| Continue envolues (a) | Internation (d int primary key,name varchar(30),dept_name varchar(30),salary int);
| 2 | Insert into instructor values(2), salary | Not | Not
```

ERROR 1,064 (42000) at line 16: You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'outer join teaches on instructor.id=teaches. d' at line 1