File 1 –

```
create database analysis;
use analysis;

select * from student_data;

select * from student_scores;

desc student_data;

-- student_data

alter table student_data rename column `ï»¿Roll No` to id;

alter table student_data rename column `Student Name` to name;

-- student_scores

alter table student_scores rename column `ï»¿Roll No` to id;
alter table student_scores rename column `Math Score` to math;
alter table student_scores rename column `Coding Score` to coding;
alter table student_scores rename column `English Score` to english;

-- adding constraints - PK,FK

alter table student_data add constraint primary key(id);

alter table student_scores add constraint foreign key(id)
        references student_data(id);
```

```
desc student_scores;

-- joins

select * from student_data join student_scores
        on student_data.id = student_scores.id;

-- adding extra statistic column (average)

alter table student_scores add average FLOAT;

update student_scores set average = (math+coding+english)/3;

select average,
        CASE
                WHEN average>=90 THEN 'A'
    WHEN average>=80 THEN 'B'
    WHEN average>=70 THEN 'C'
    WHEN average>=60 THEN 'D'
    ELSE 'F'
        END As grade from student_scores;

select * from student_scores;

-- what is average score of english, coding, math

select avg(math),avg(coding),avg(english) from student_scores;

-- sorting

select * from student_data join student_scores
```

```
        on student_data.id = student_scores.id
    order by student_scores.average asc;

select * from student_data join student_scores
        on student_data.id = student_scores.id
    order by student_scores.average desc;

select * from student_data join student_scores
        on student_data.id = student_scores.id
    order by student_data.name asc;

-- grouping

select Department,count(Department) from student_data group by Department;

select Gender,count(Gender) from student_data group by Gender;

select student_data.Gender, max(student_scores.average)
        from student_data join student_scores
    on student_data.id = student_scores.id
    group by student_data.Gender;

select student_data.Department, count(student_data.Department), max(student_scores.average)
        from student_data join student_scores
    on student_data.id = student_scores.id
    group by student_data.Department;

select student_data.Gender, max(student_scores.math)
        from student_data join student_scores
    on student_data.id = student_scores.id
    where student_data.Department = 'EEE'
```

```
    group by student_data.Gender;

select student_data.Department, avg(student_scores.math),
            avg(student_scores.coding),avg(student_scores.english)
            from student_data join student_scores
    on student_data.id = student_scores.id
    group by student_data.Department;

select student_data.Department, max(student_scores.math),
            max(student_scores.coding),max(student_scores.english)
            from student_data join student_scores
    on student_data.id = student_scores.id
    group by student_data.Department
    having avg(student_scores.math)>80;



-- QUERIES
-- Which students has scored highest and lowest average

select student_data.name, student_scores.average
            from student_data join student_scores
            on student_data.id = student_scores.id
    order by student_scores.average desc
    LIMIT 1;

select t1.name, t2.average
            from student_data t1 join student_scores t2
            on t1.id = t2.id
    order by t2.average asc
    LIMIT 1;
```

```
-- summarizing

select min(average)as min_average, max(average),
        round(avg(math),2), round(avg(coding),2),round(avg(english),2)
   from student_scores;
```

File 2 –

```
use demo;

create table table1 (
        c_id int primary key,
   name varchar(50),
   email varchar(100) );

desc table1;

insert into table1 (c_id,name,email) values
        (1,'abc','abc@gmail.com'),
   (2,'xyz','xyz@gmail.com'),
   (3,'pqr','pqr@gmail.com'),
   (4,'mno','mno@gmail.com');

select * from table1;

create table table2(
        o_id int primary key,
   c_id int,
   amount decimal(10,2),
   foreign key(c_id) references table1(c_id));

desc table2;
```

```
insert into table2(o_id,c_id,amount) values
        (101,1,1000.00),
   (102,2,2000.00),
   (103,1,3000.90),
   (104,2,4000.80),
   (105,3,5675.98);
select * from table2;

-- joins - inner joins, left joins, right joins, outer joins

select * from table1 inner join table2 on table1.c_id=table2.c_id;

select * from table1 left join table2 on table1.c_id=table2.c_id;

select * from table1 right join table2 on table1.c_id=table2.c_id;

select * from table1 left outer join table2 on table1.c_id=table2.c_id;

select * from table1 right outer join table2 on table1.c_id=table2.c_id;
```