DBMS Assignment 4

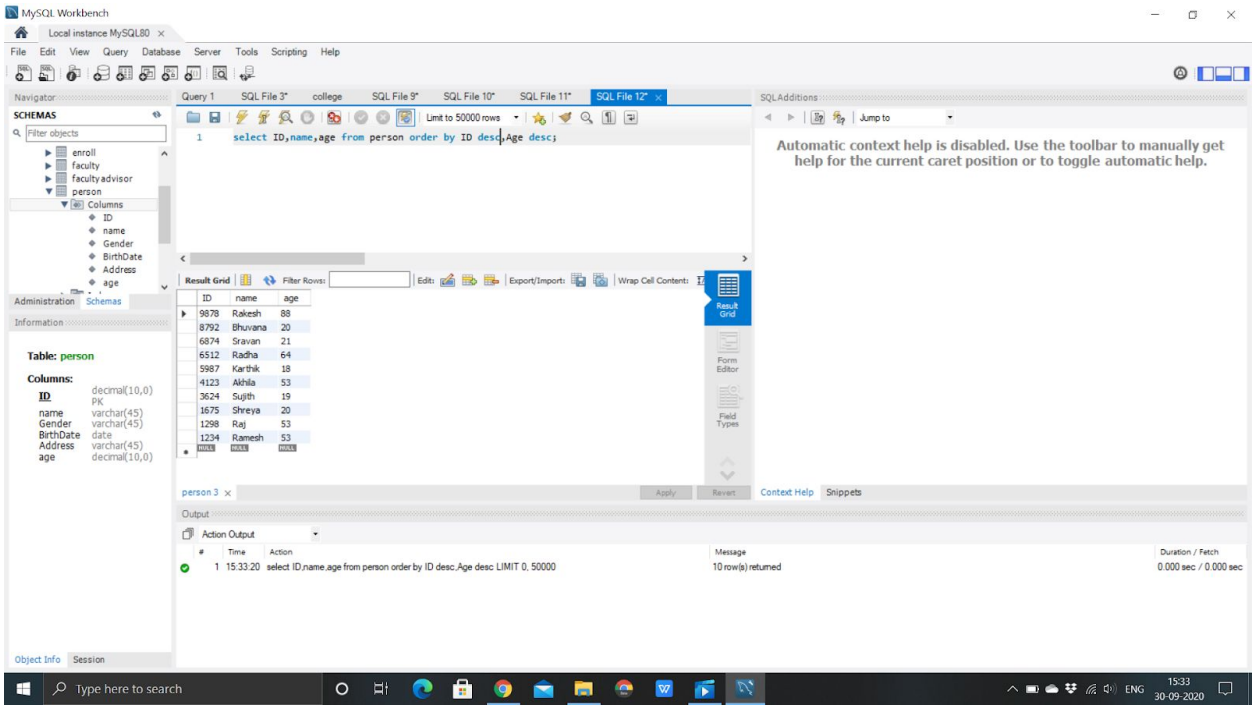
1. Order by Clause

a)Table person is selected based on ID descending order and Age Descending Order.

Query:

select ID,name,age from person order by ID desc,Age desc;

output:

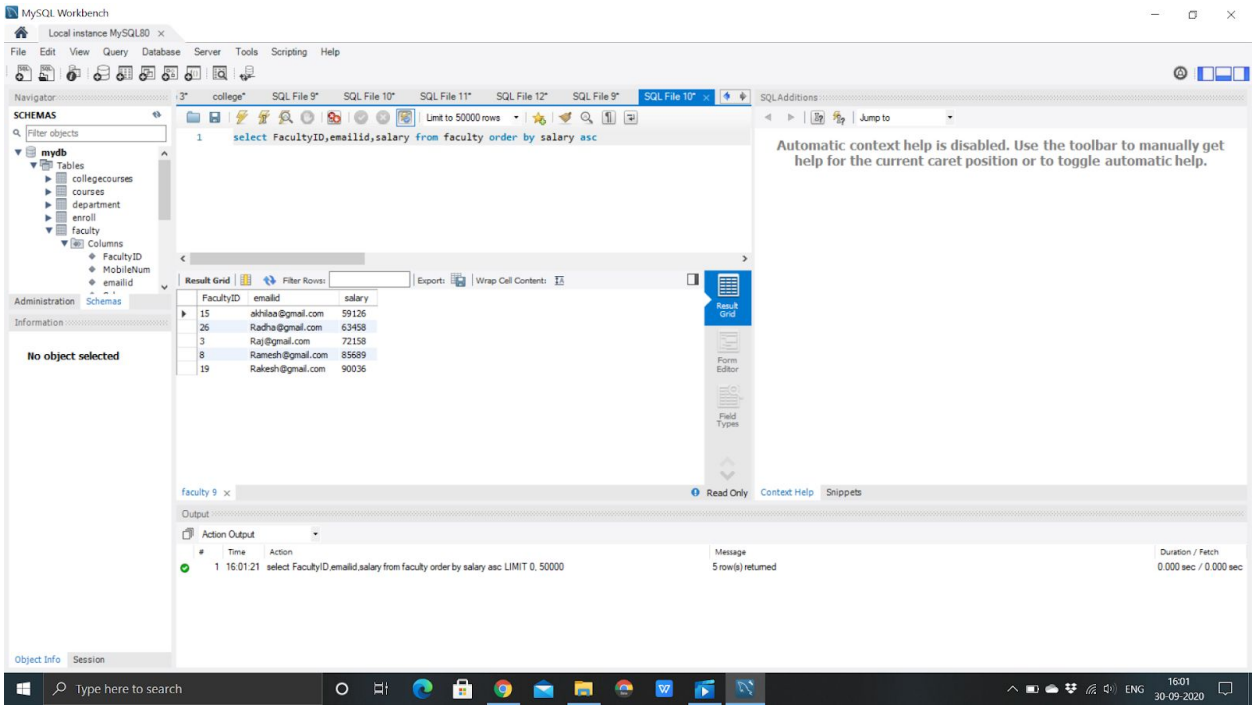


b)Table faculty is selected based on increasing order of salary.

Query:

select FacultyID,emailid,salary from faculty order by salary asc

output:



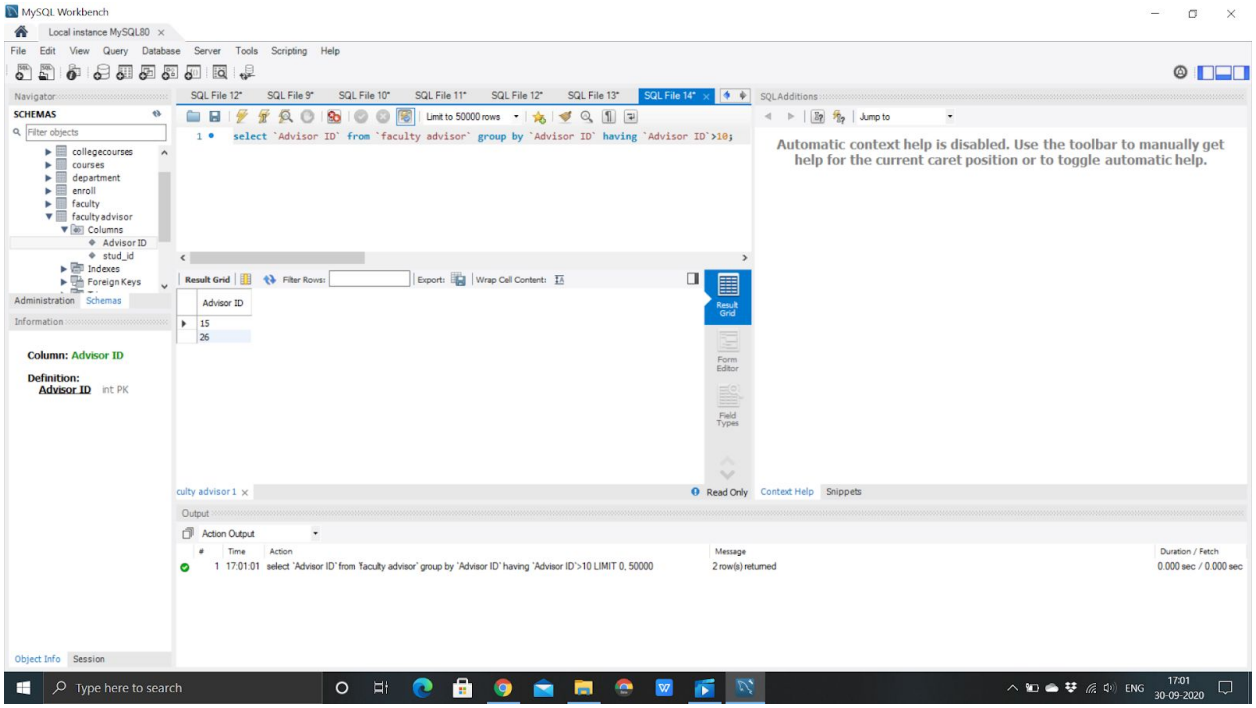
2. Group by and having

a)Using Group by and having clause Advisor ID’S >10 was selected

Query:

select `AdvisorID` from `facultyadvisor` group by `AdvisorID` having `AdvisorID`>10;

output:

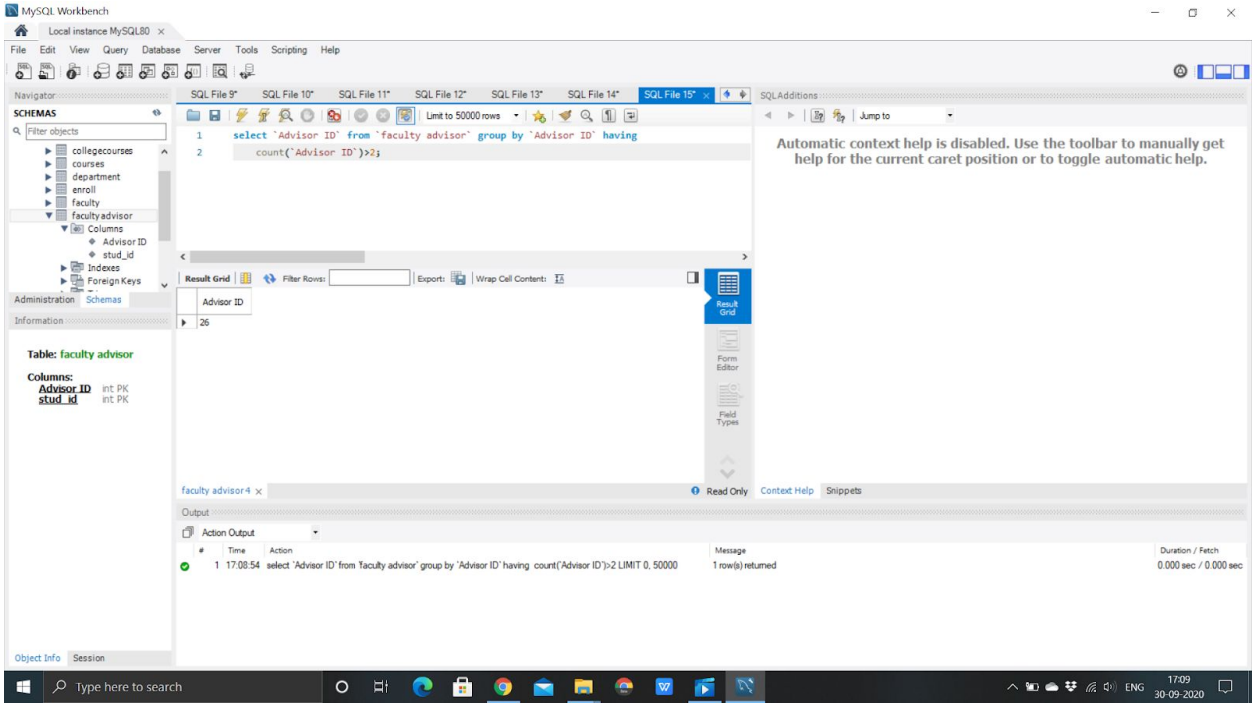


b)Selecting Advisors from Faculty Advisor Table who is the advisor for more than 2 students.

Query:

```
select `AdvisorID` from `facultyadvisor` group by `AdvisorID` having
        count(`AdvisorID`)>2;
```

output:



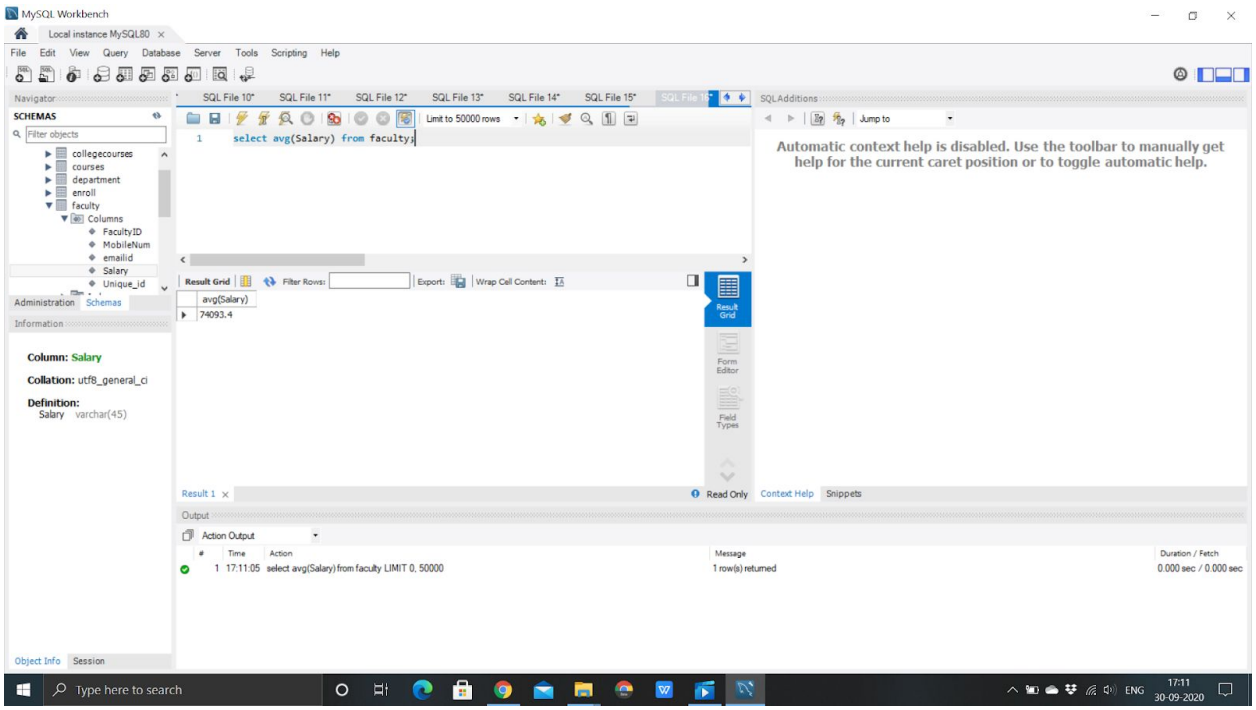
3. Aggregate functions

a)Calculating Average Salary using Aggregate Function Average.

Query:

select avg(Salary) from faculty;

output:

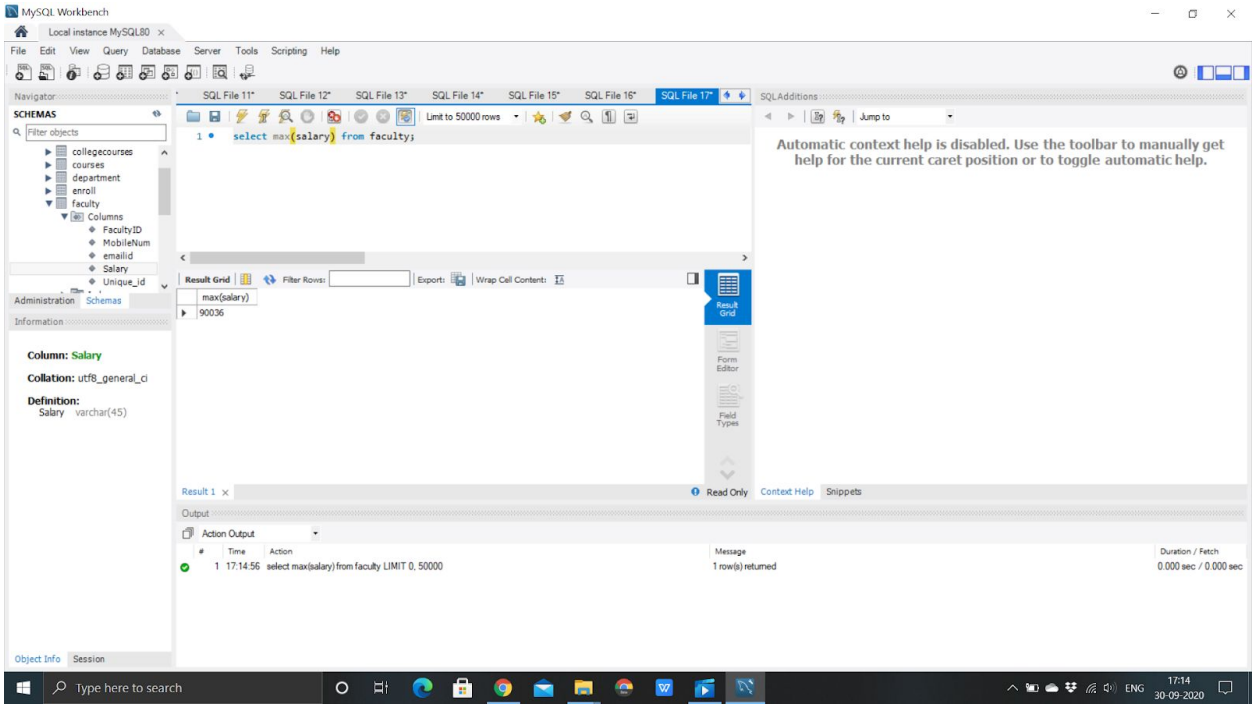


b)Selected Max Salary using Aggregate Function Max.

Query:

select max(salary) from faculty;

output:



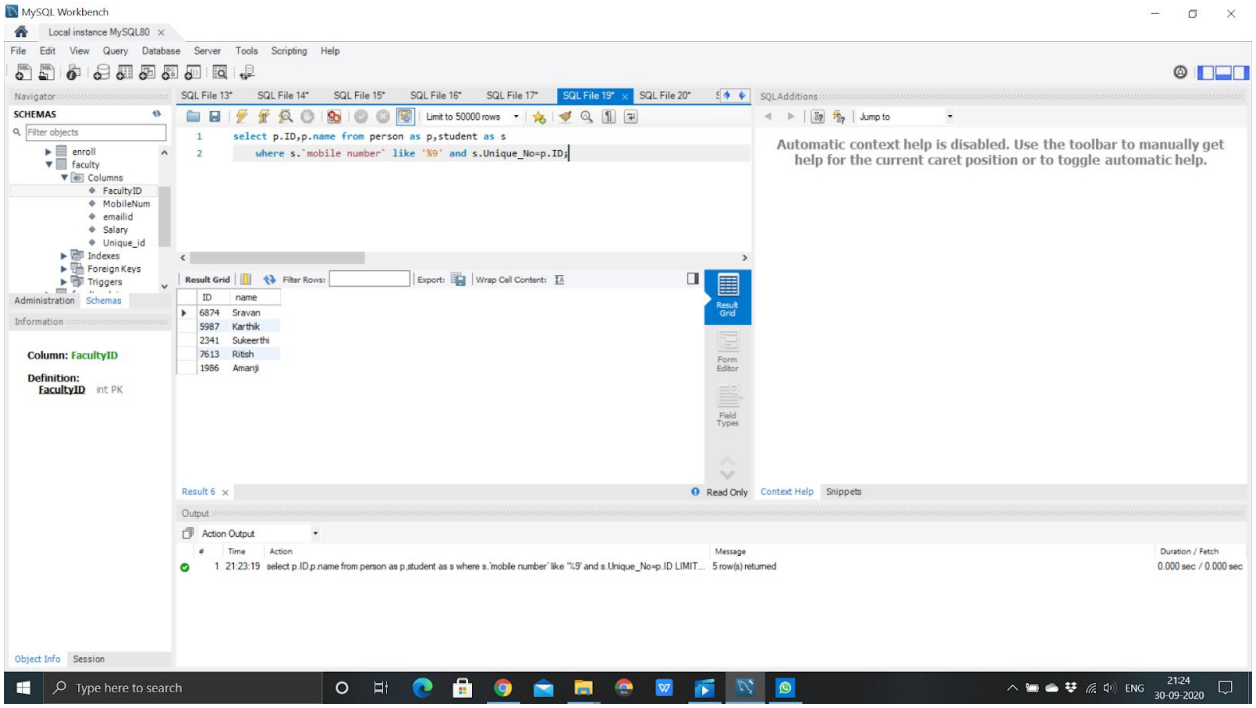
4. Logical operators especially with LIKE

a)Selecting students whose mobile numbers is like %9(ending with 9)

Query:

```
select p.ID,p.name from person as p,student as s
        where s.`mobile number` like '%9' and s.Unique_No=p.ID;
```

output:

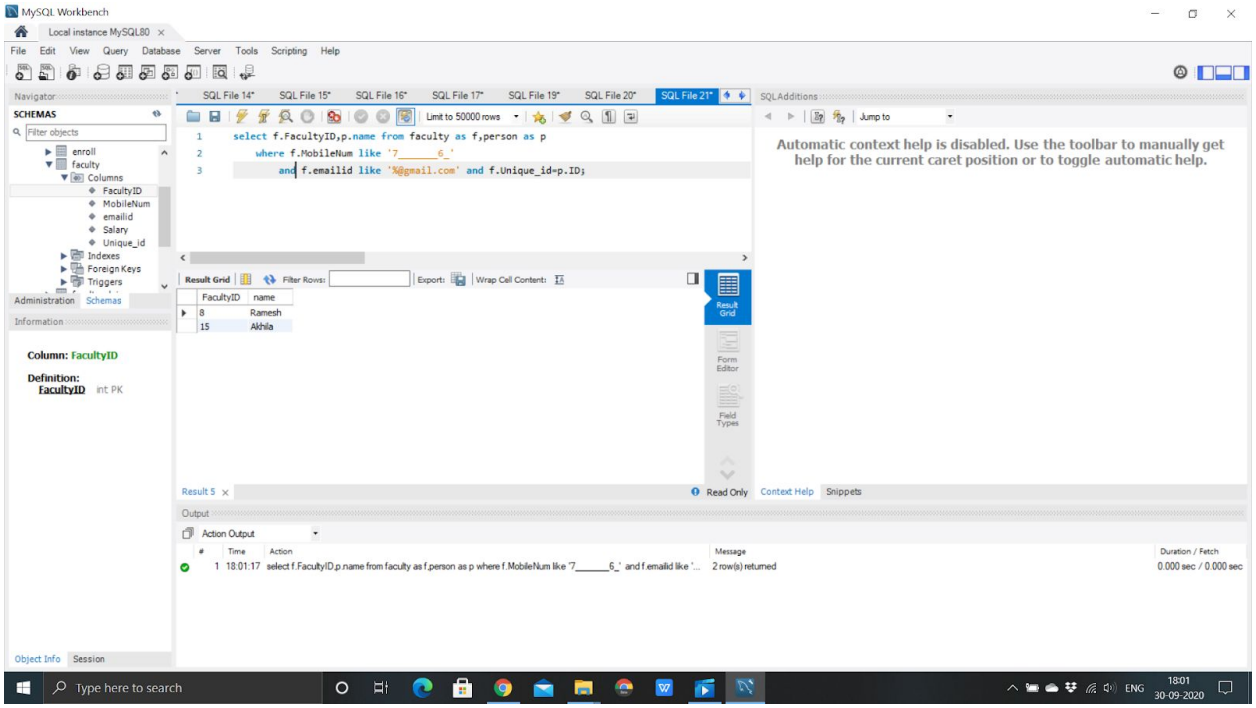


b)Selecting faculty from a faculty table whose mobile number like 7_____6_ and mail id like %@gmail.com.

Query:

```
select f.FacultyID,p.name from faculty as f,person as p
        where f.MobileNum like '7_____6_'
                and f.emailid like '%@gmail.com' and f.Unique_id=p.ID;
```

output:



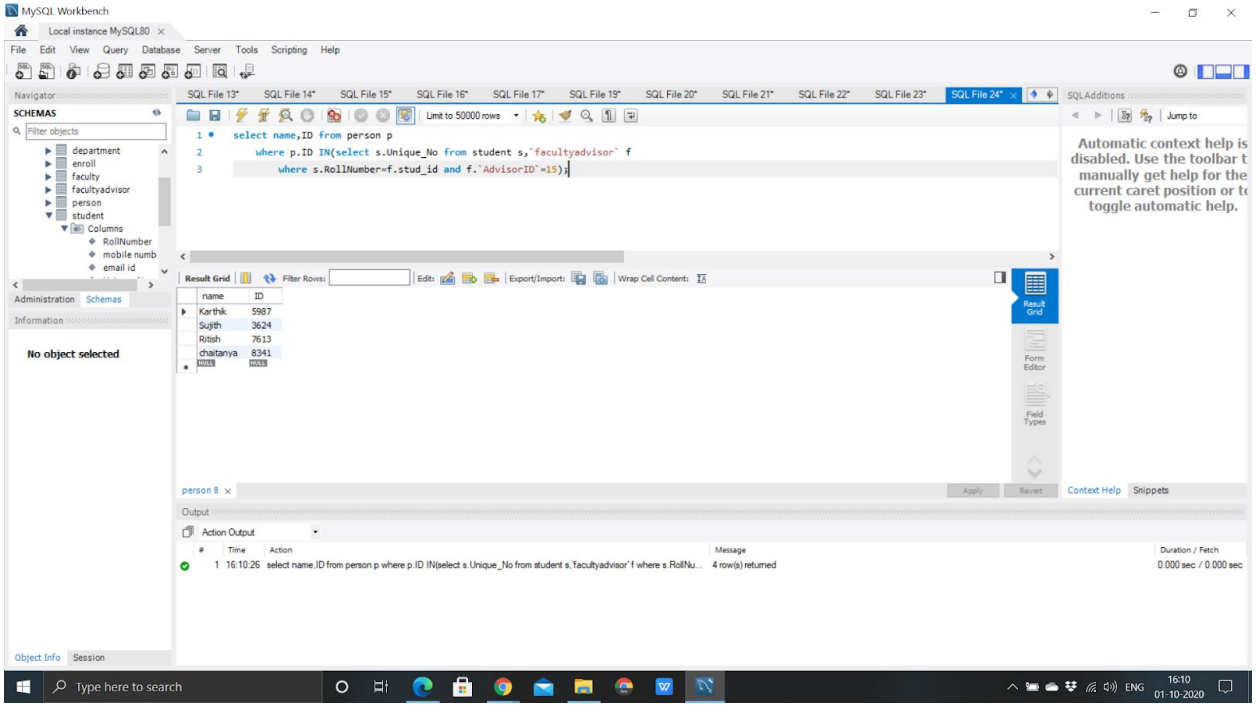
5. At least 4 Nested queries specific to your Database, out of which at least 2 should have multiple subquery.

a)Selecting students whose advisor id=15

Query:

```
select name,ID from person p
        where p.ID IN(select s.Unique_No from student s,`facultyadvisor` f
                where s.RollNumber=f.stud_id and f.`AdvisorID`=15);
```

output:

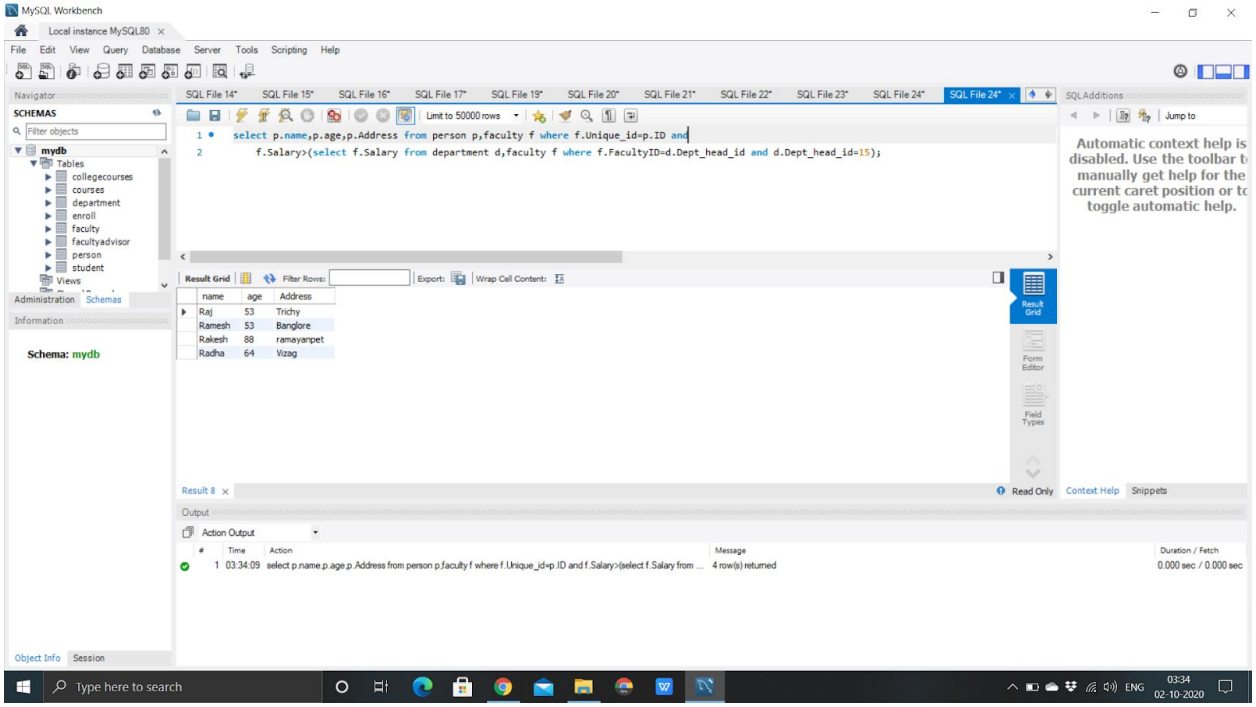


b)Selecting faculty whose salary is greater than the department head of CSE.

Query:

```
select p.name,p.age,p.Address from person p,faculty f where f.Unique_id=p.ID and
        f.Salary>(select f.Salary from department d,faculty f where
f.FacultyID=d.Dept_head_id and d.Dept_head_id=15);
```

output:

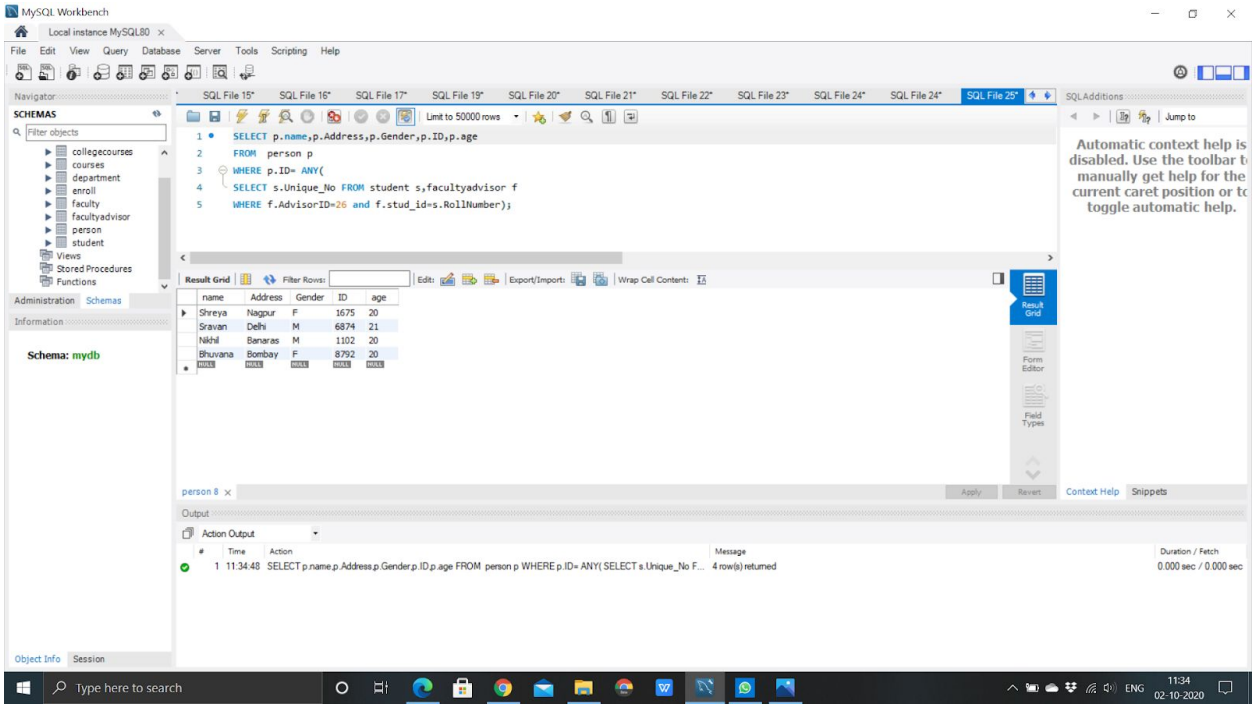


c)Selecting students whose Advisor Radha(AdvisorID=26)

Query:

```
SELECT p.name,p.Address,p.Gender,p.ID,p.age
        FROM  person p
                WHERE p.ID= ANY(
                        SELECT s.Unique_No FROM student s,facultyadvisor f
                                WHERE f.AdvisorID=26 and f.stud_id=s.RollNumber);
```

output:



d)Selecting Students who have enrolled for course CN(Course_id=306) and Faculty Akhila(faculty_id=15)

Query:

```
select * from student
        where RollNumber in(select distinct  student_id from enroll where course_id=306 and faculty_id=15)
```

output: