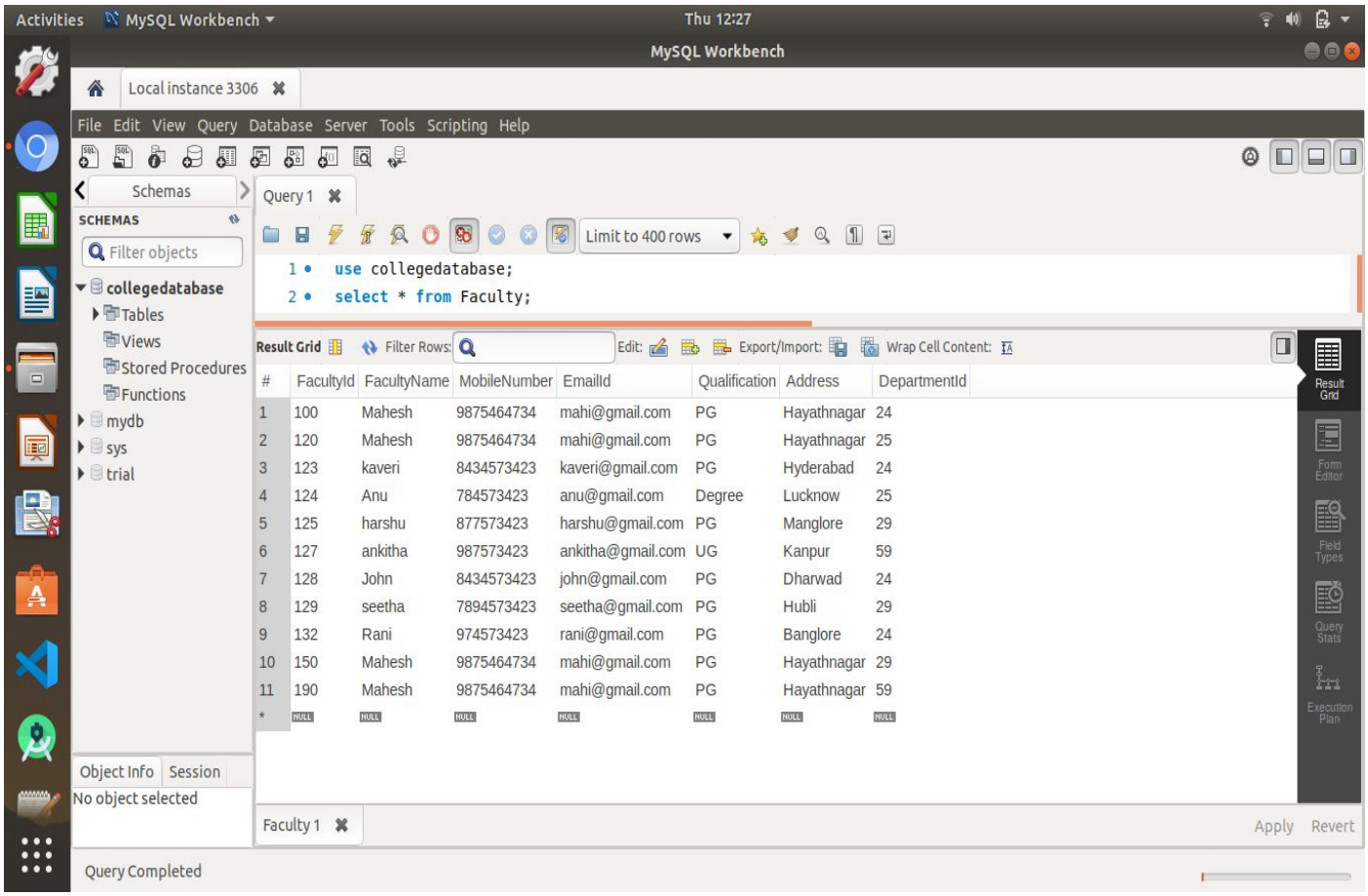
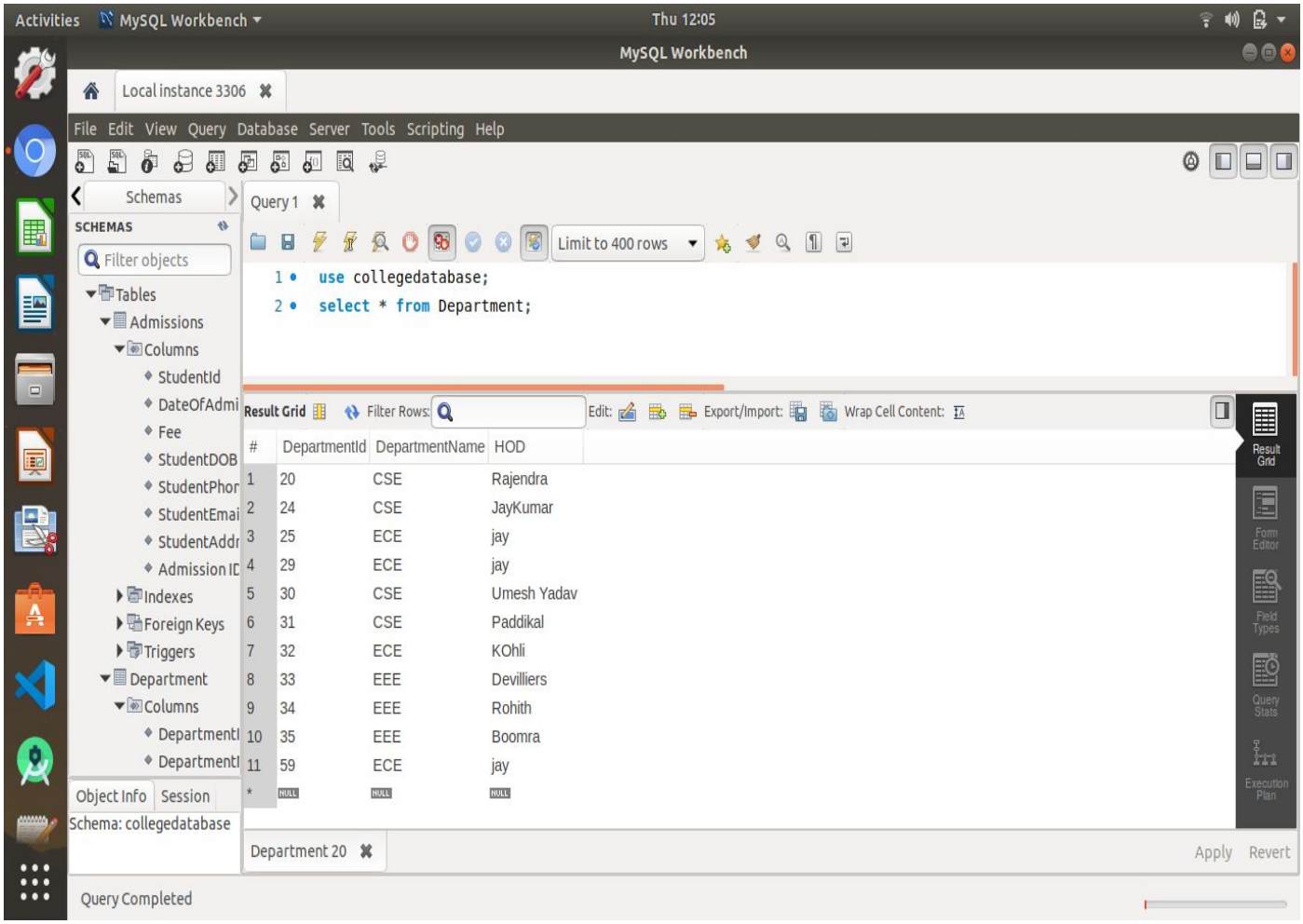
Assignment-4

Tables that are used for writing queries:

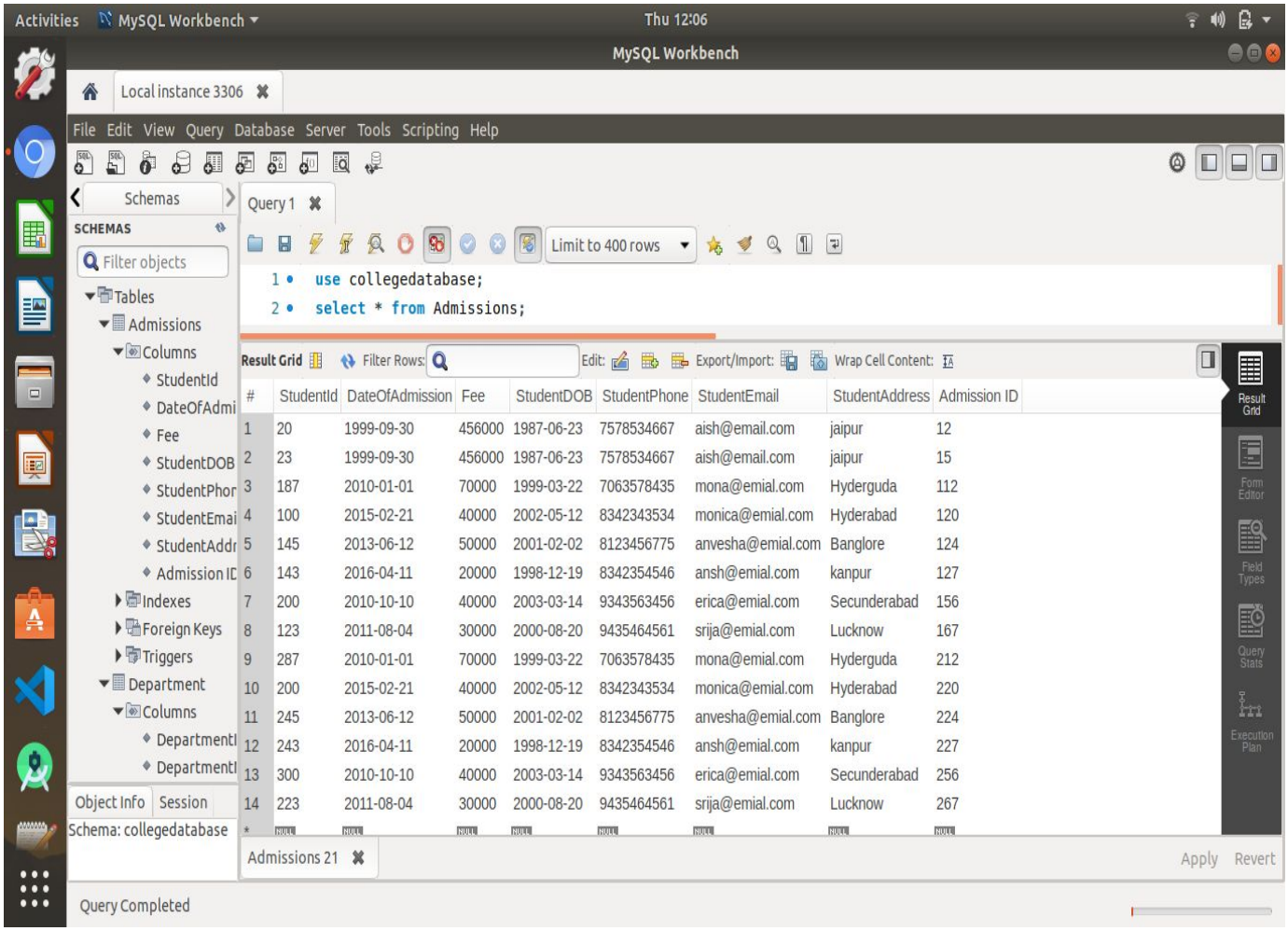
Faculty:



Department:


Activities
MySQL Workbench
Thu 12:05
MySQL Workbench
Local instance 3306
File Edit View Query Database Server Tools Scripting Help
Schemas
SCHEMAS
Filter objects
Tables
Admissions
Columns
StudentId
DateOfAdmi
Fee
StudentDOB
StudentPhor
StudentEmai
StudentAddr
Admission ID
Indexes
Foreign Keys
Triggers
Department
Columns
DepartmentI
DepartmentI
Object Info
Session
Schema: collegedatabase
Query 1
Limit to 400 rows
1 • use collegedatabase;
2 • select * from Department;
Result Grid
Filter Rows:
Edit:
Export/Import:
Wrap Cell Content:
DepartmentId DepartmentName HOD
1 20 CSE Rajendra
2 24 CSE JayKumar
3 25 ECE jay
4 29 ECE jay
5 30 CSE Umesh Yadav
6 31 CSE Paddikal
7 32 ECE KOhli
8 33 EEE Devilliers
9 34 EEE Rohith
10 35 EEE Boomra
11 59 ECE jay
* NULL NULL NULL
Result Grid
Form Editor
Field Types
Query Stats
Execution Plan
Department 20
Apply
Revert
Query Completed

Admissions:

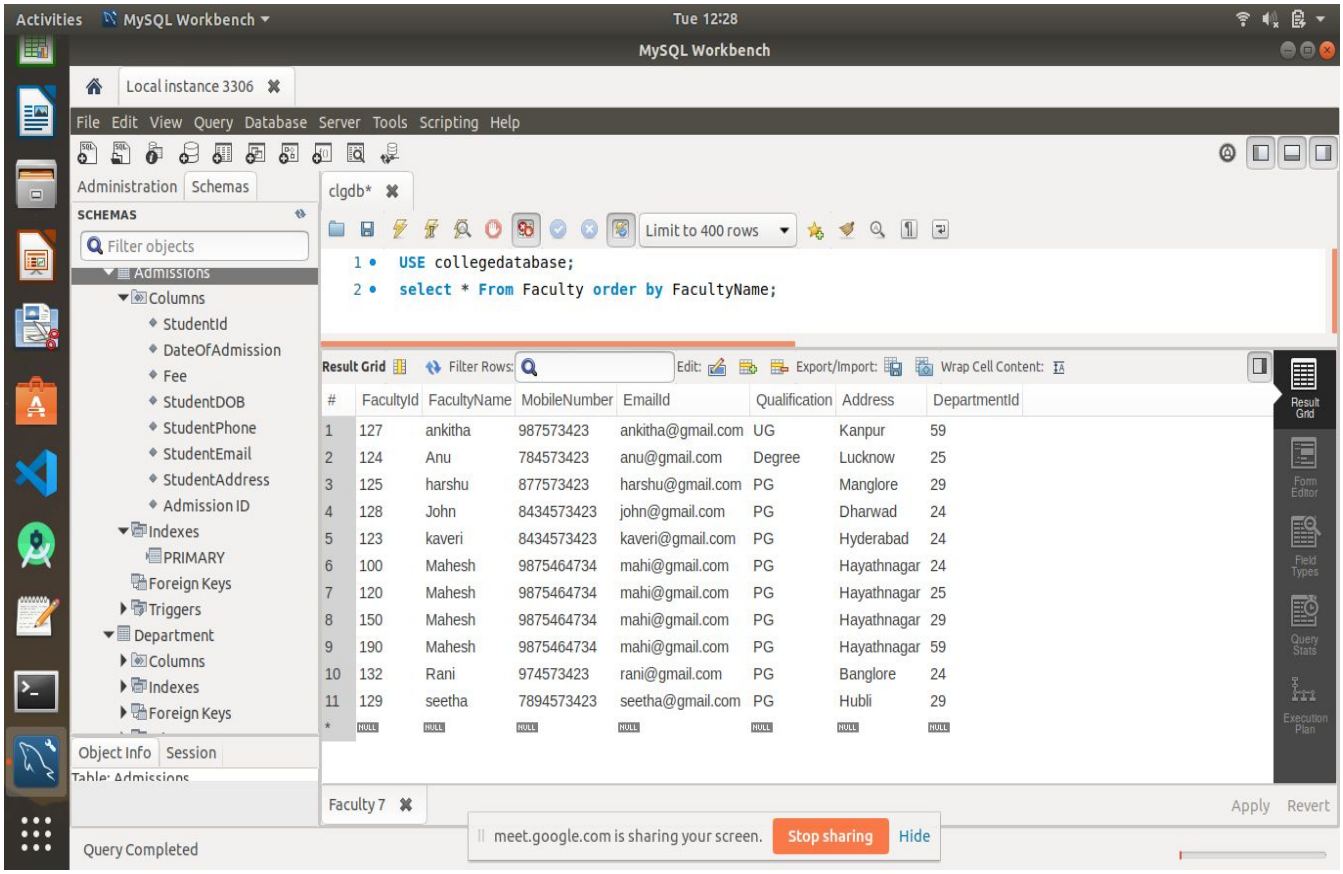

Activities
MySQL Workbench
Thu 12:06
MySQL Workbench
Local instance 3306
File Edit View Query Database Server Tools Scripting Help
Schemas
SCHEMAS
Filter objects
Tables
Admissions
Columns
StudentId
DateOfAdmi
Fee
StudentDOB
StudentPhor
StudentEmai
StudentAddr
Admission ID
Indexes
Foreign Keys
Triggers
Department
Columns
DepartmentI
DepartmentI
Object Info
Session
Schema: collegedatabase
Query 1
Limit to 400 rows
1 • use collegedatabase;
2 • select * from Admissions;
Result Grid
Filter Rows:
Edit:
Export/Import:
Wrap Cell Content:
Result Grid
Form Editor
Field Types
Query Stats
Execution Plan
StudentId DateOfAdmission Fee StudentDOB StudentPhone StudentEmail StudentAddress Admission ID
1 20 1999-09-30 456000 1987-06-23 7578534667 aish@email.com jaipur 12
2 23 1999-09-30 456000 1987-06-23 7578534667 aish@email.com jaipur 15
3 187 2010-01-01 70000 1999-03-22 7063578435 mona@emial.com Hyderguda 112
4 100 2015-02-21 40000 2002-05-12 8342343534 monica@emial.com Hyderabad 120
5 145 2013-06-12 50000 2001-02-02 8123456775 anvesha@emial.com Banglore 124
6 143 2016-04-11 20000 1998-12-19 8342354546 ansh@emial.com kanpur 127
7 200 2010-10-10 40000 2003-03-14 9343563456 erica@emial.com Secunderabad 156
8 123 2011-08-04 30000 2000-08-20 9435464561 srija@emial.com Lucknow 167
9 287 2010-01-01 70000 1999-03-22 7063578435 mona@emial.com Hyderguda 212
10 200 2015-02-21 40000 2002-05-12 8342343534 monica@emial.com Hyderabad 220
11 245 2013-06-12 50000 2001-02-02 8123456775 anvesha@emial.com Banglore 224
12 243 2016-04-11 20000 1998-12-19 8342354546 ansh@emial.com kanpur 227
13 300 2010-10-10 40000 2003-03-14 9343563456 erica@emial.com Secunderabad 256
14 223 2011-08-04 30000 2000-08-20 9435464561 srija@emial.com Lucknow 267
Admissions 21
Apply
Revert
Query Completed

Question 1: Order by clause:

Query: Select * from Faculty order by FacultyName;

Explanation: ordered in ascending order of faculty names

Output:

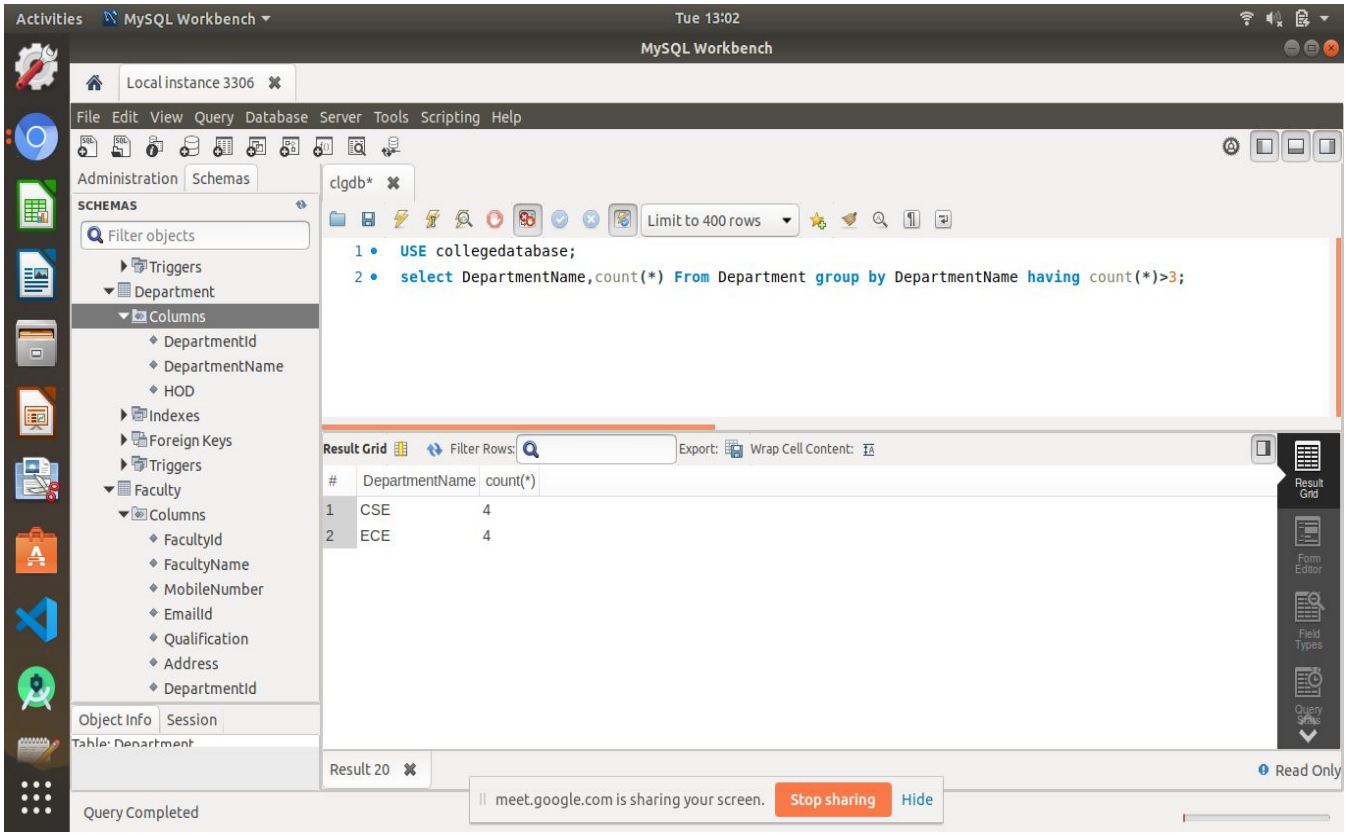


Question 2: Group by and having

Query: Select DepartmentName,count(*) From Department group by DepartmentName having count(*)>3;

Explanation: Group by Departmentname and those have occurrences more than 3.

<u>Output:</u>

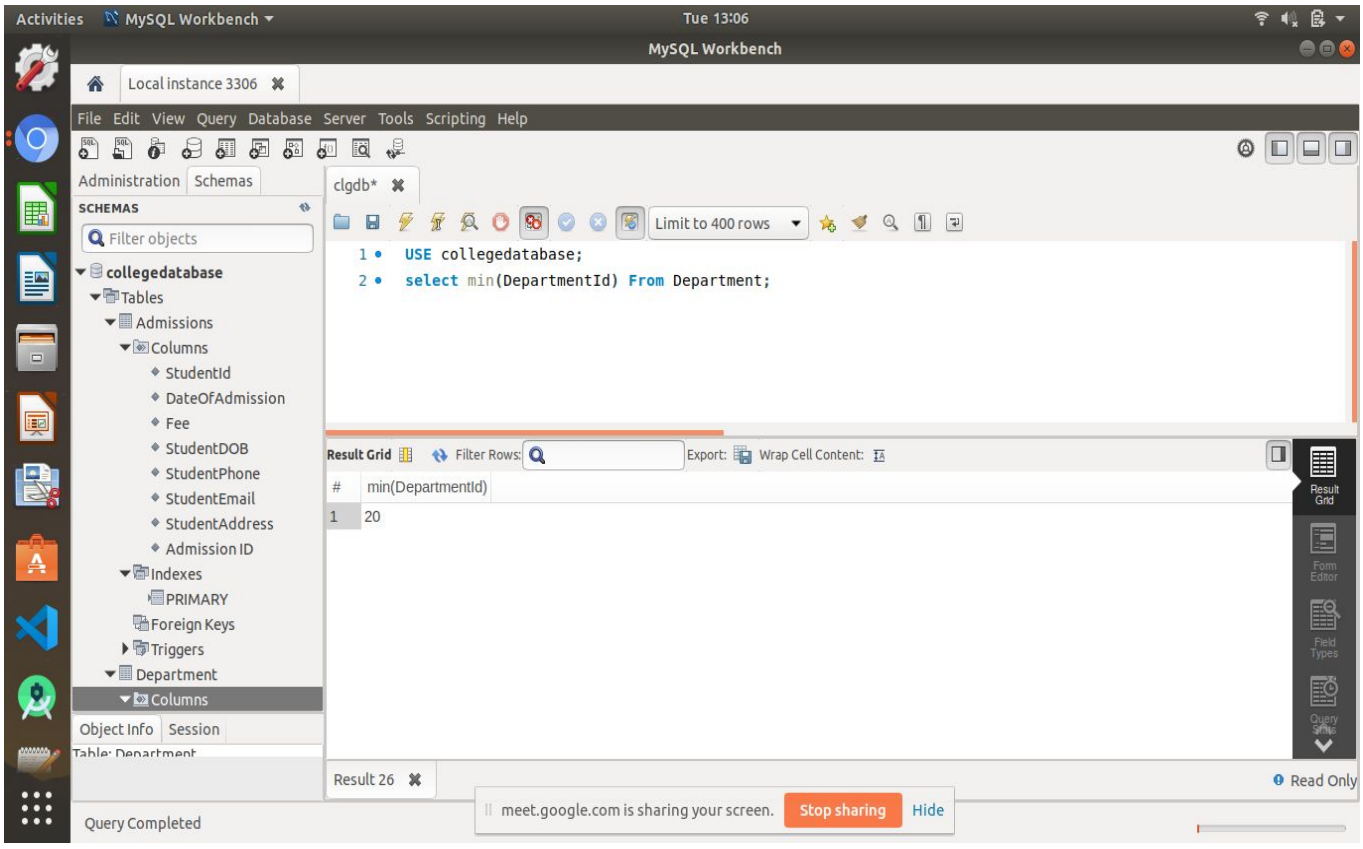


Question 3: Aggregate Functions

a).Query: Select min(DepartmentId) From Department;

Explanation: gives minimum departmentId

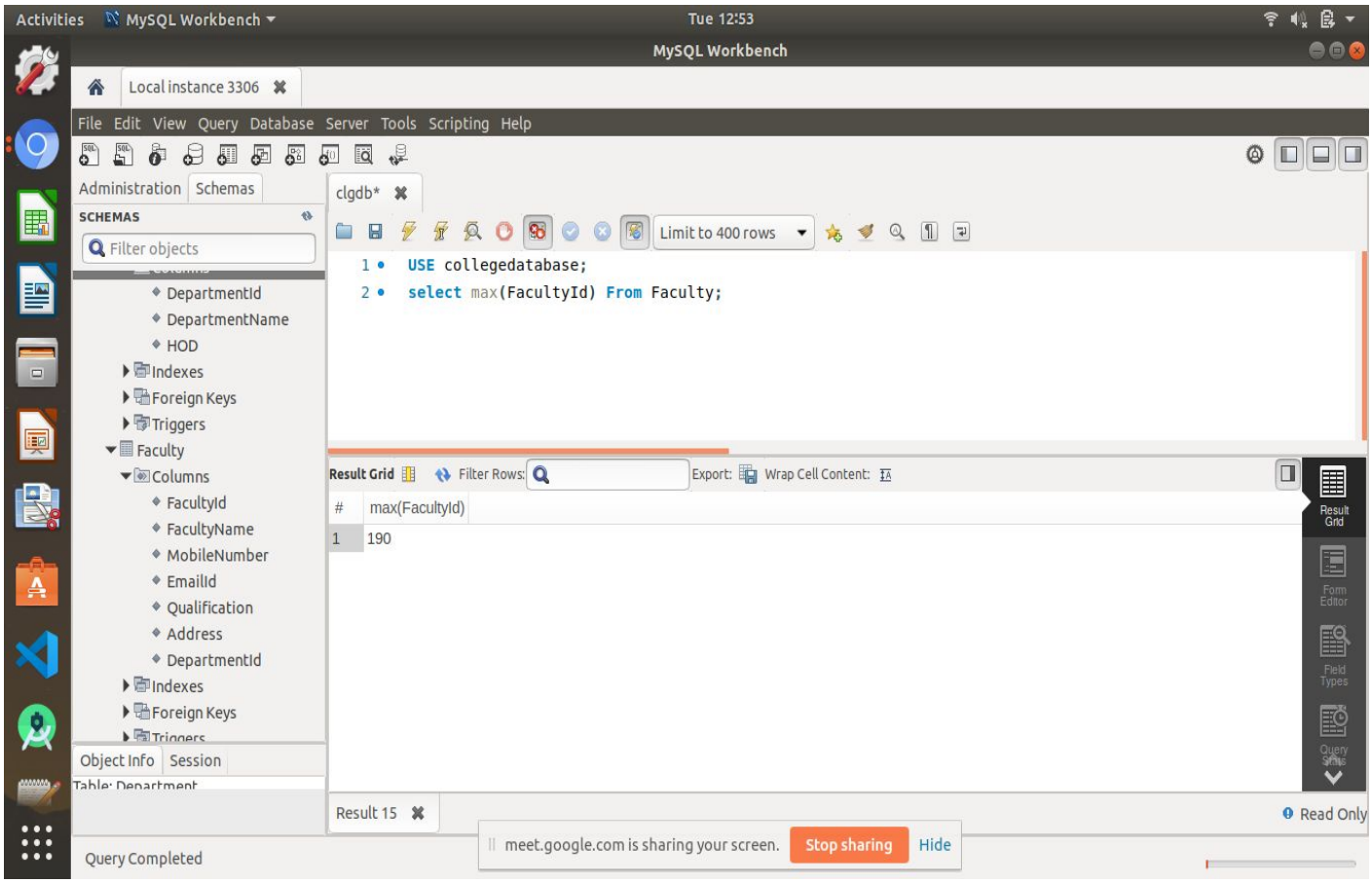
Output:



b).Query: Select max(FacultyId) From Faculty;

Explanation: gives maximum FacultyId

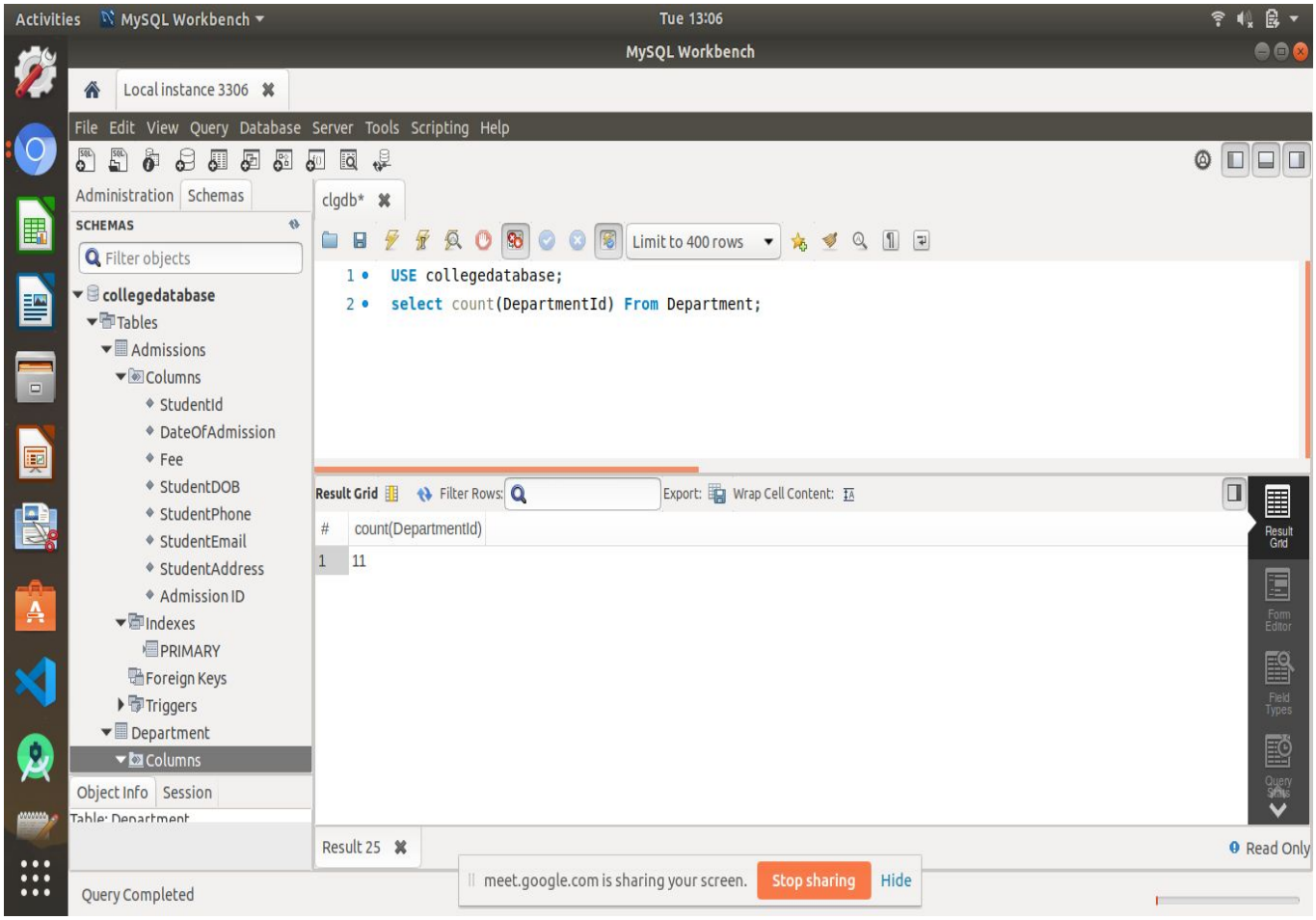
Output:



c).Query: Select count(DepartmentId) From Department;

Explanation: gives number of entries in department table

Output:

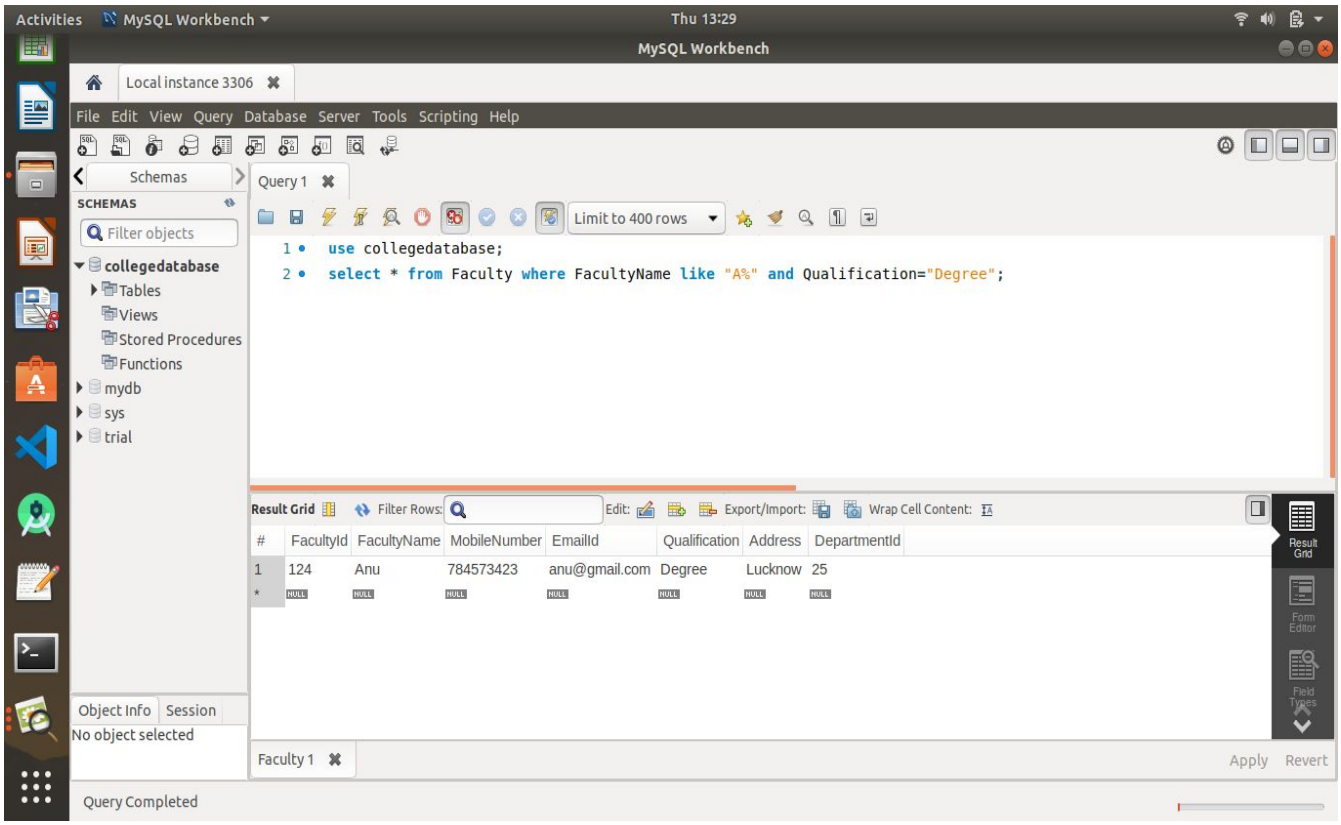


Question 4: Logical operators especially with LIKE

a).Query: select * from Faculty where FacultyName like "A%" and Qualification="Degree";

Explanation: FacultyName starting with letter A and qualification degree.

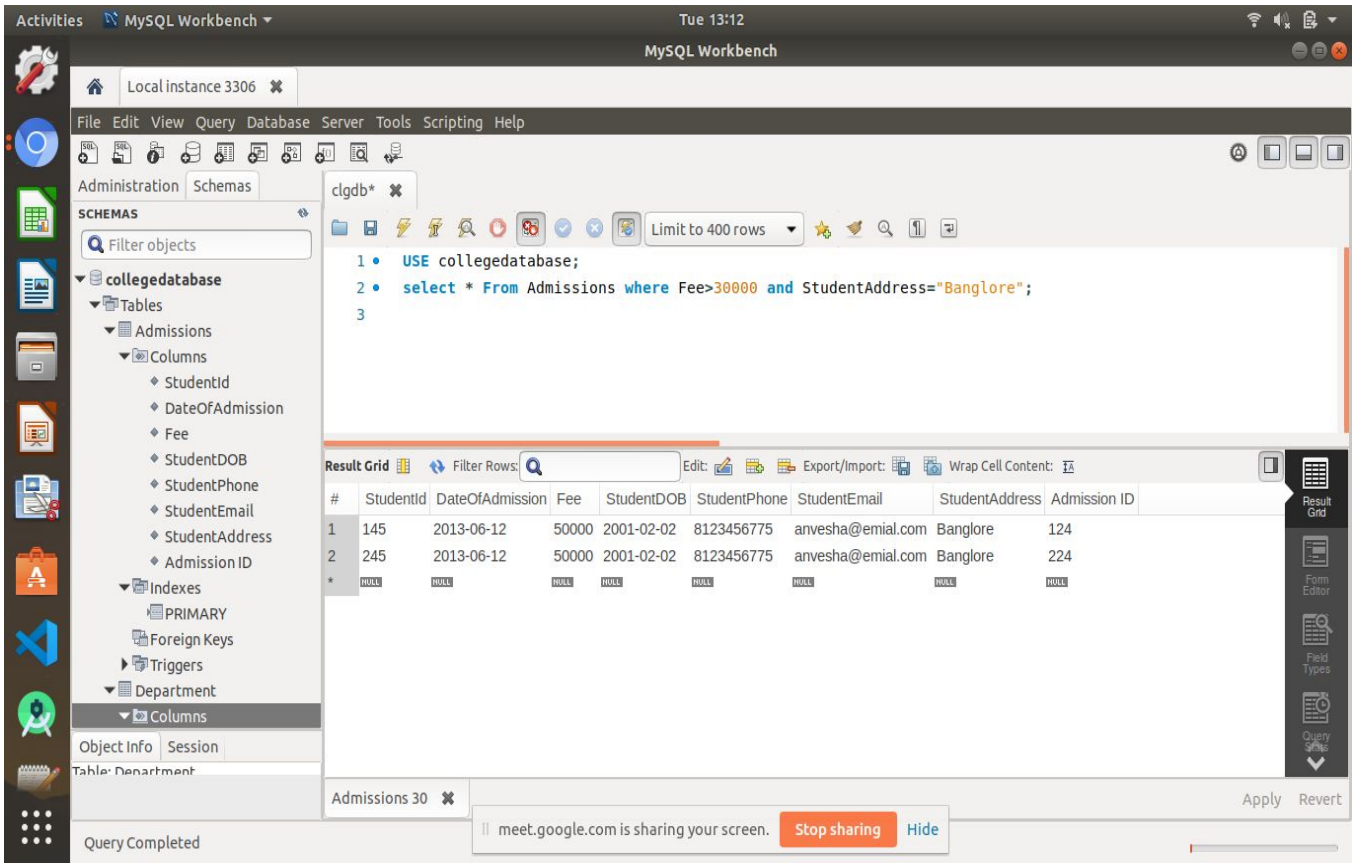
Output:



b).Query: select * from Admissions where Fee>30000 and StudentAddress=”Bangalore”;

Explanation: gives Student details whose fee is greater than 30000 and stays in Bangalore.

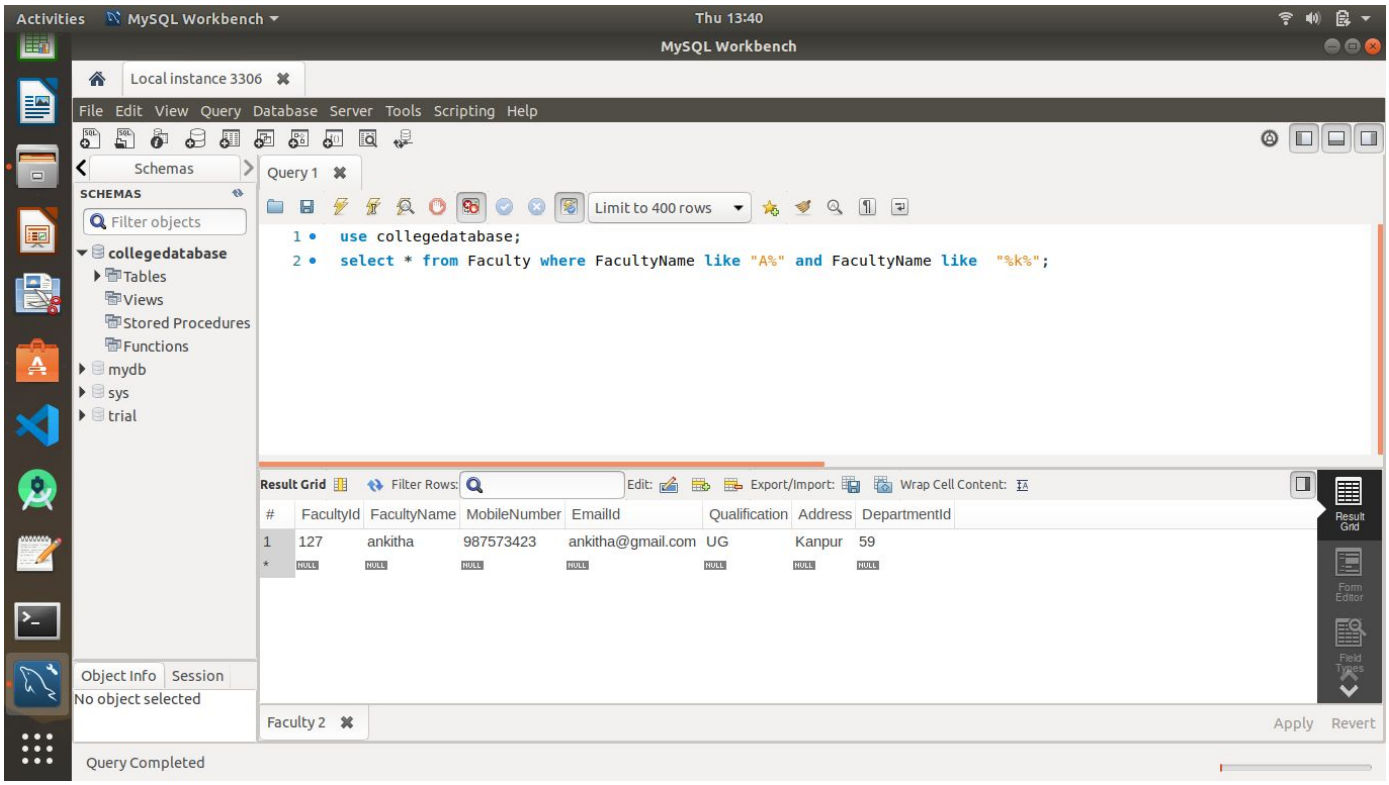
Output:



c).Query: select * from Faculty where FacultyName like "A%" and FacultyName like "%k%";

Explanation: FacultyName starting with letter A and contains letter k in FacultyName

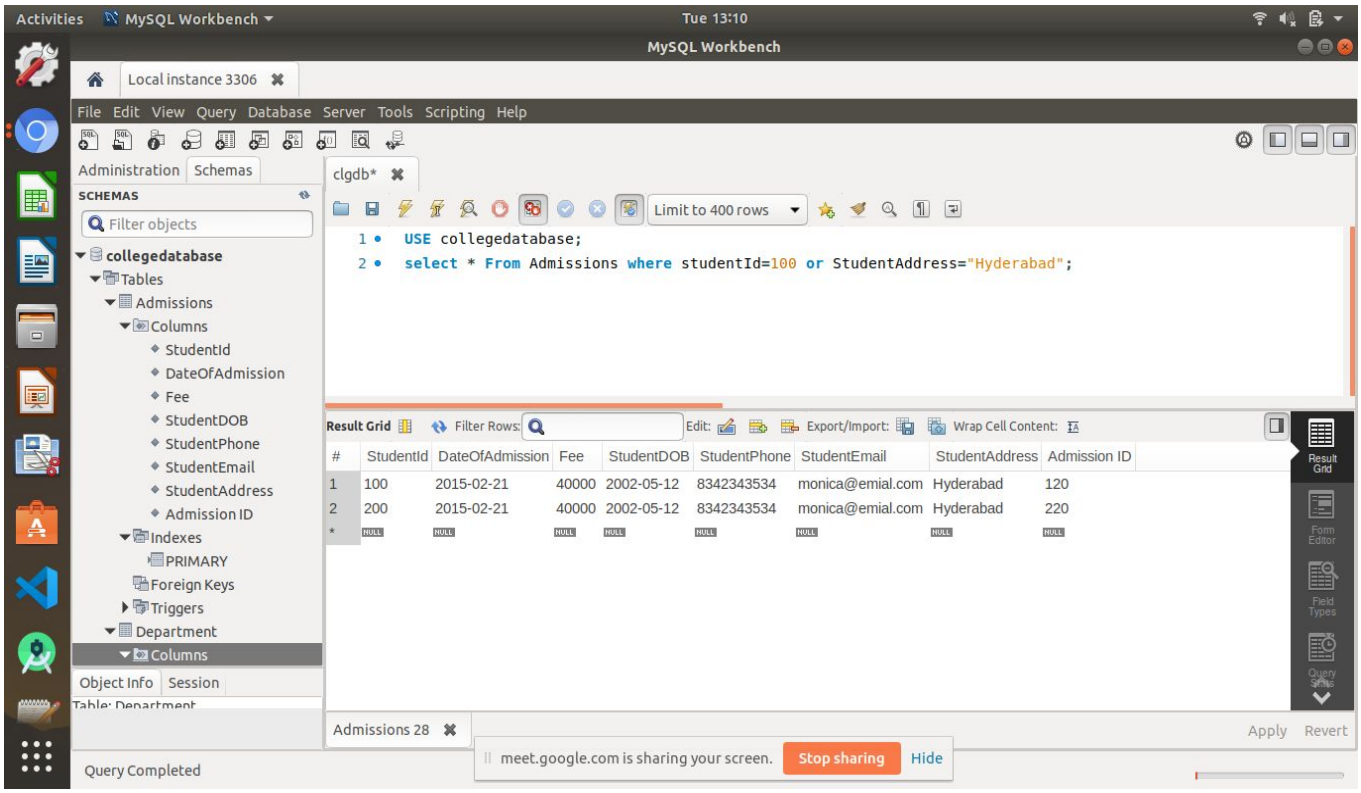
Output:



d).Query: select * from Admissions where Fee>30000 and StudentAddress=”Bangalore”;

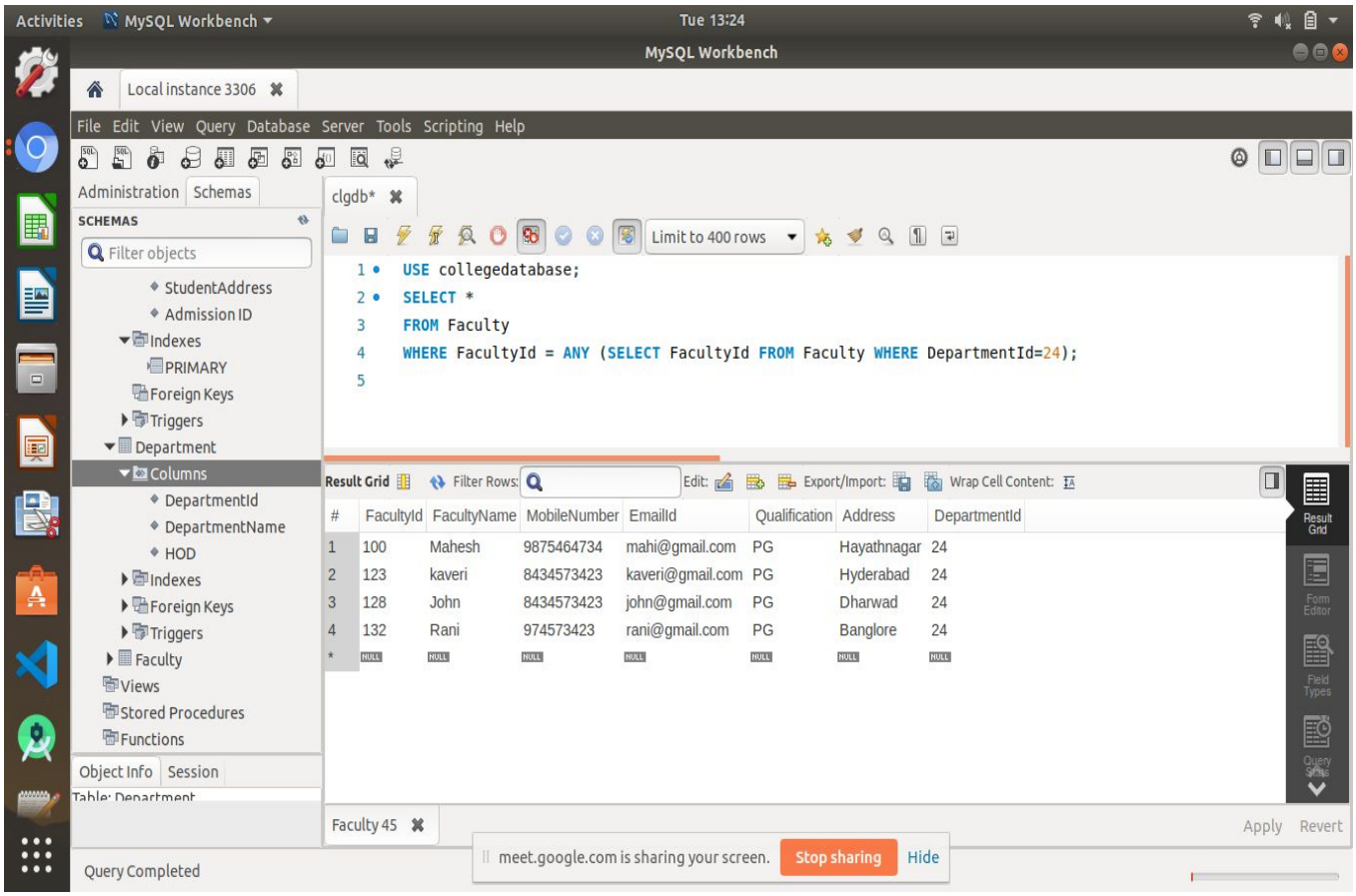
Explanation: gives Student details whose id is 100 or or who stays in Hyderabad.

Output:



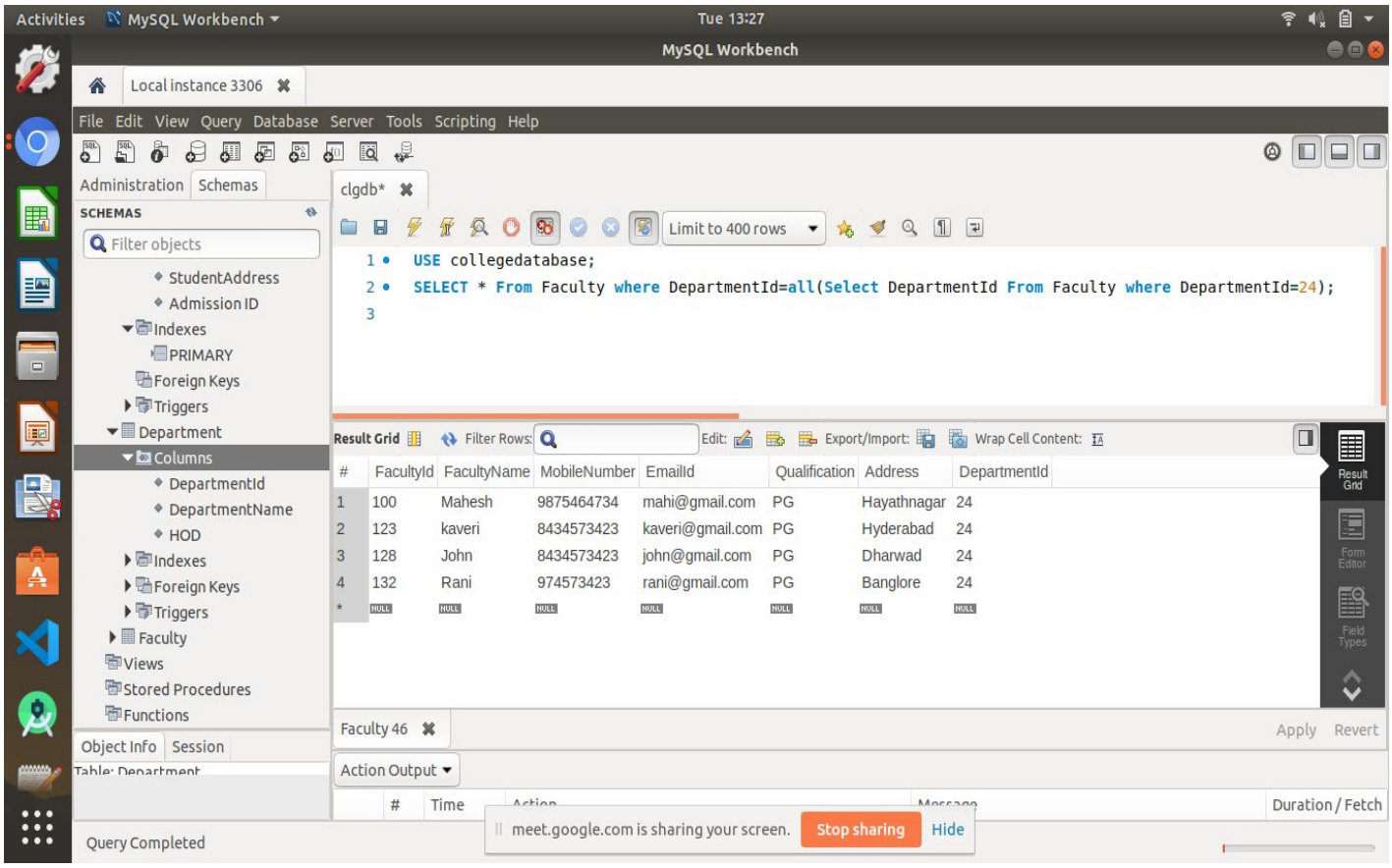
e).Query: select * from Faculty
where FacultyId=
ANY(select FacultyId from Faculty where DepartmentId=24);

Output:



f).Query: select * from Faculty
where DepartmentId=
ALL(select DepartmentId from Faculty where DepartmentId=24);

Output:

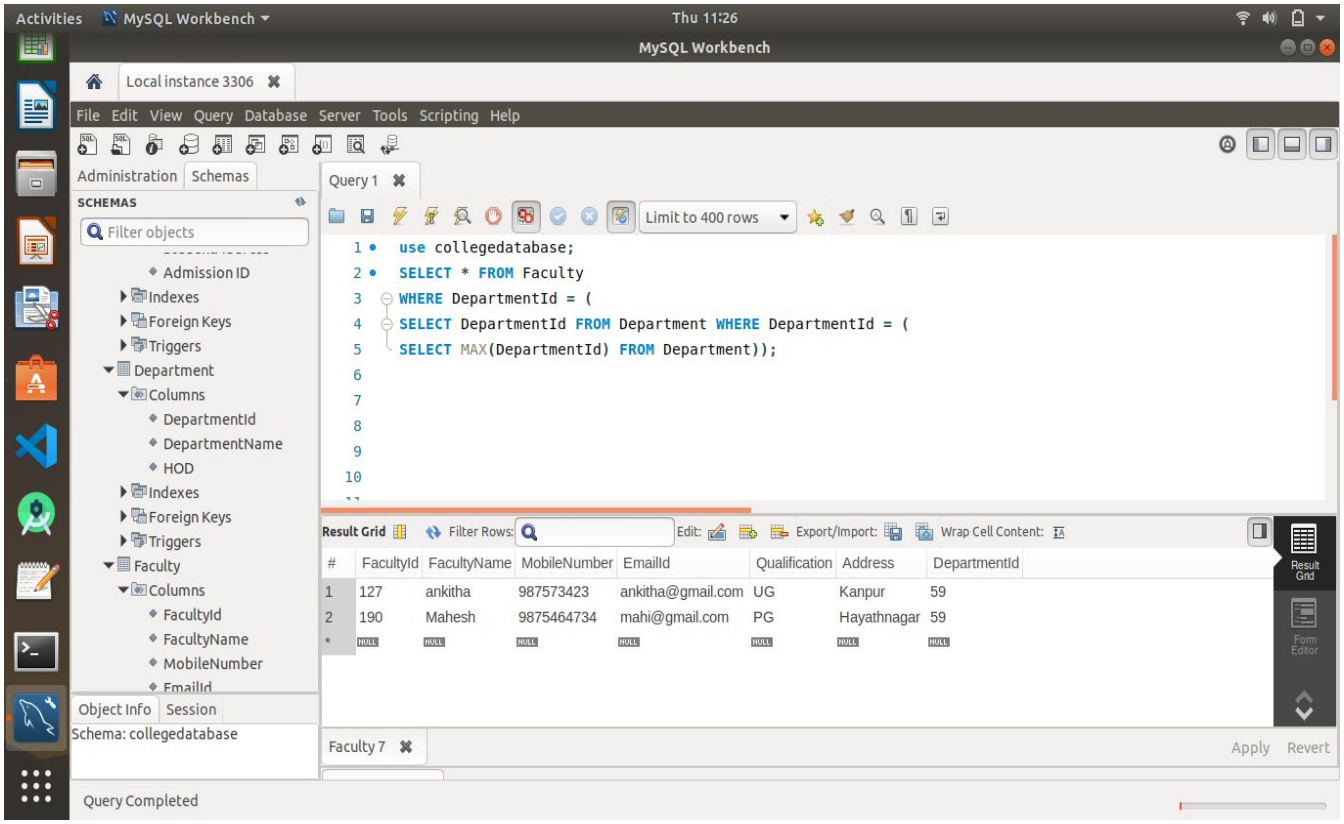


Question 4: At least 4 Nested queries specific to your Database, out of which at least 2 should have multiple subquery.

a).Query:

```
select * from Faculty where DepartmentId=
(select DepartmentId From
 Department where DepartmentId=
(select MAX(DepartmentId) from Department));
```

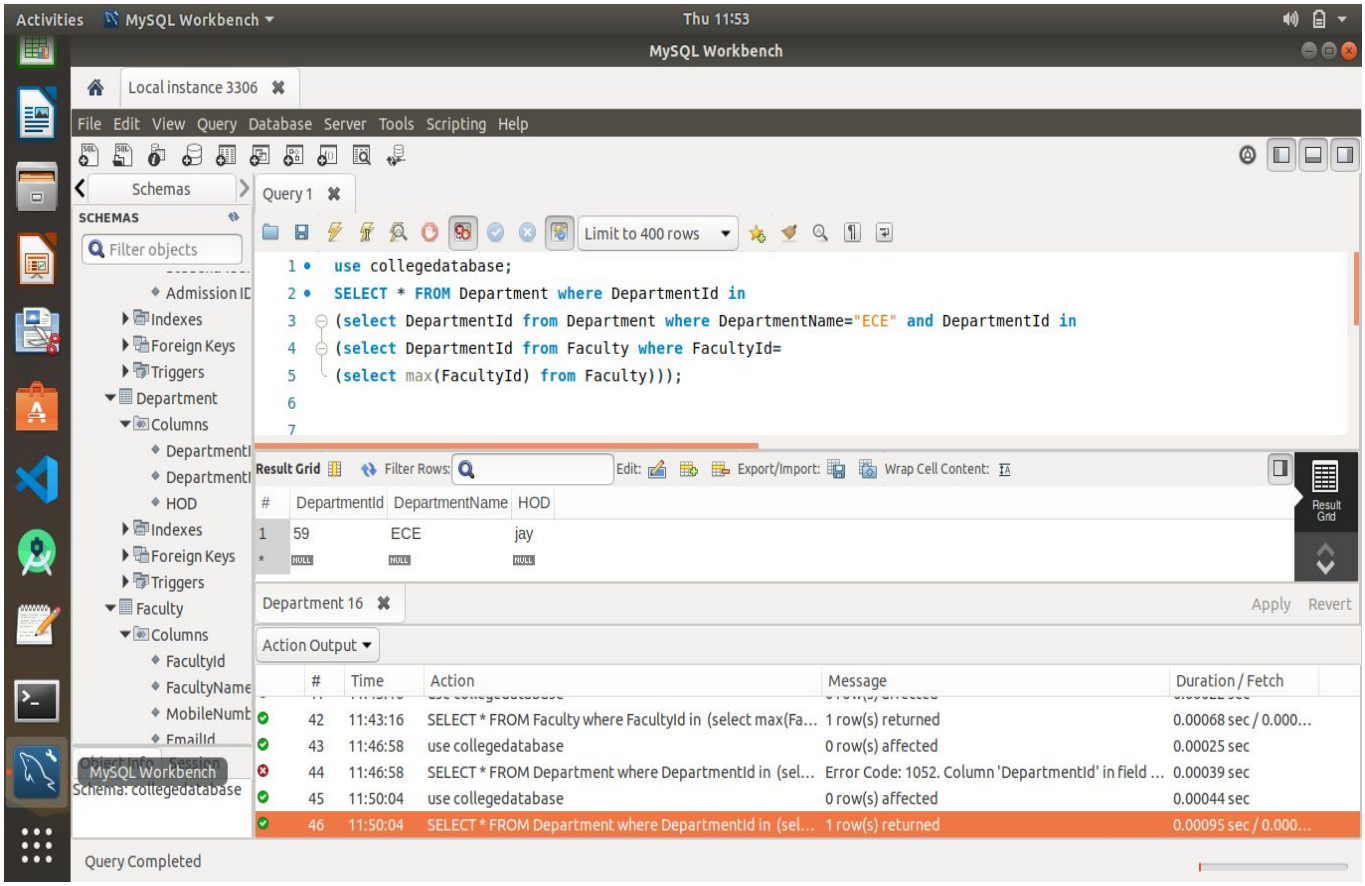
Output:



b).Query:

```
 select * from Department
 where DepartmentId in
(select DepartmentId from Department where
DepartmentName=”ECE” and DepartmentId is
(select DepartmentId from Faculty where FacultyId=
(select max(FacultyId) from Faculty)));
```

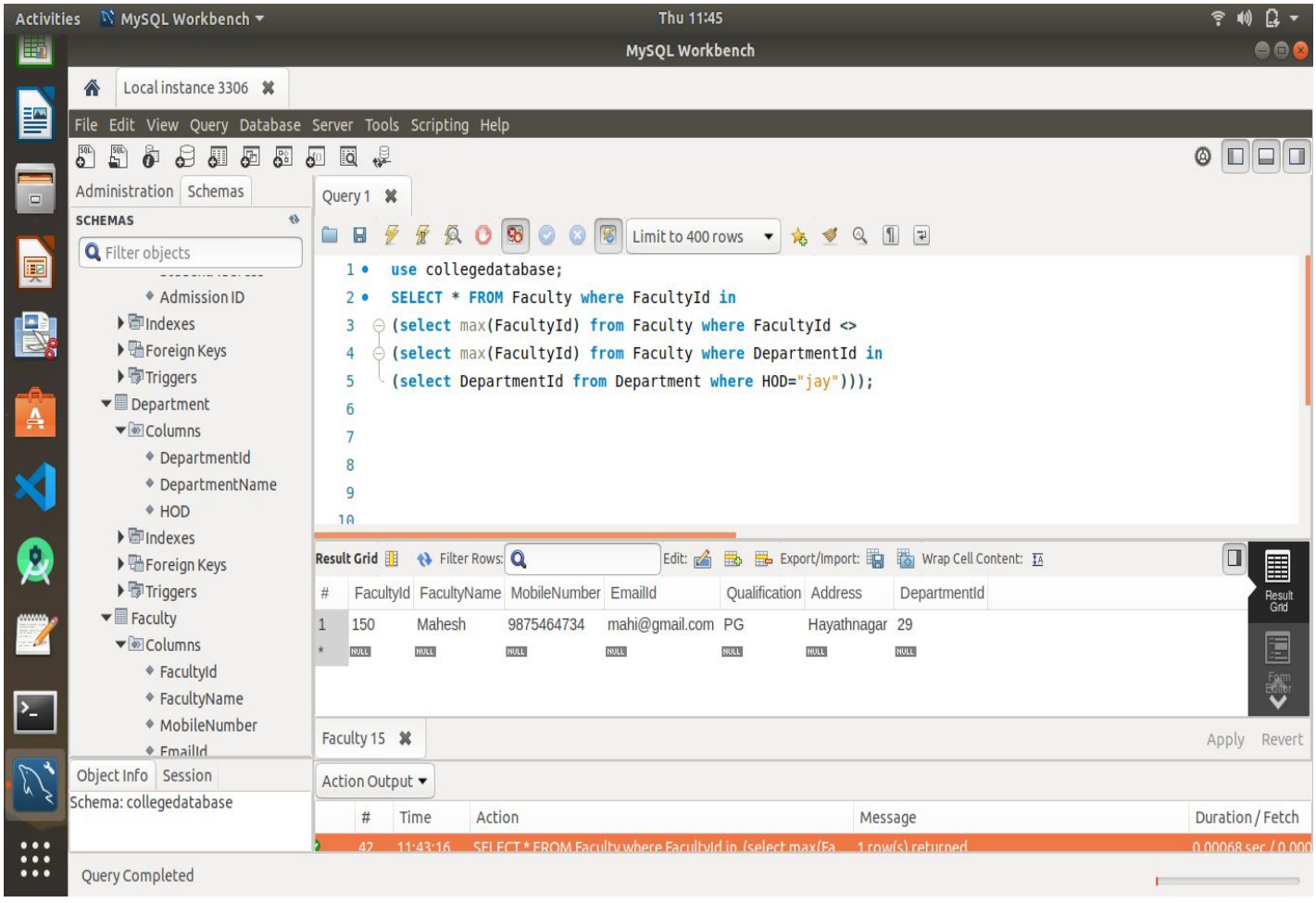
Output:



c).Query:

```
select * from Faculty where FacultyId in
(select max(FacultyId) from Faculty where FacultyId <>
(select max(FacultyId) from Faculty where
DepartmentId in
(select DepartmentId from Department where
HOD=”jay”)));
```

Output:



d).Query:

Select * from Faculty where DepartmentId= any(select DepartmentId From Faculty where DepartmentId=25);

Output: