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DB - Fayoum - Lab Number 4

1. Insert your personal data to the employee table as a new employee in department number 30, SSN=102672, Superssn=112233.

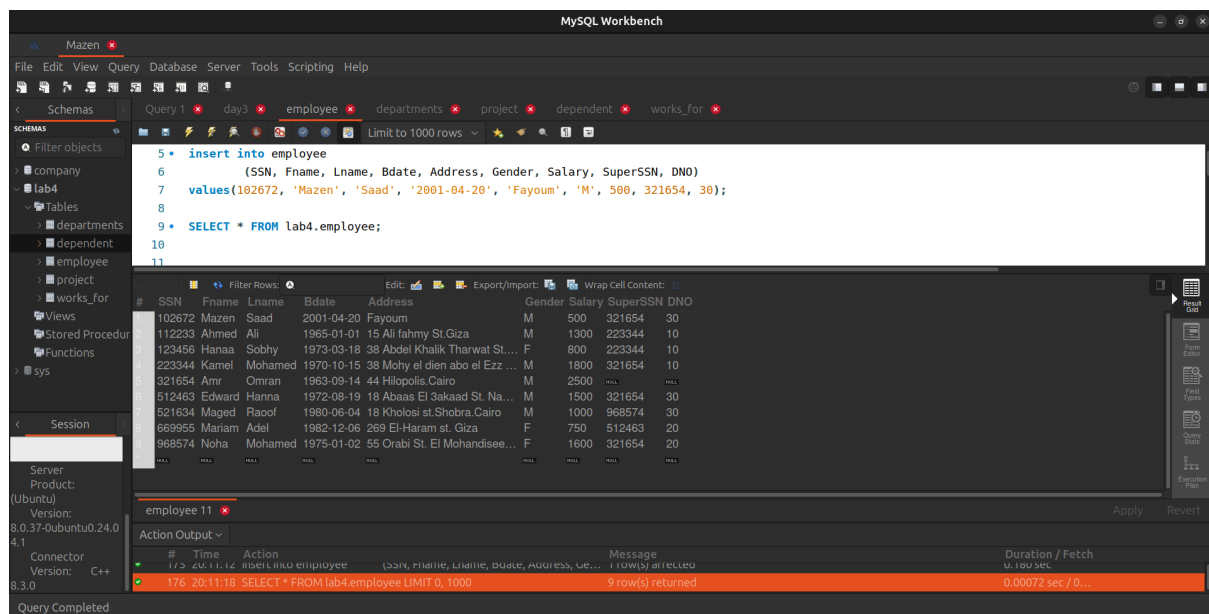
/*

Q1 =>

*/

insert into employee (SSN, Fname, Lname, Bdate, Address, Gender, Salary, SuperSSN, DNO)

values(102672, 'Mazen', 'Saad', '2001-04-20', 'Fayoum', 'M', 500, 30, 30);



2. Insert another employee with,
personal data your friend as new employee in department number 30,
SSN = 102660,
but don't enter any value for salary or supervisor number to him.

```
/*
```

Q2 =>

```
*/
```

insert into employee (SSN, Fname, Lname, Bdate, Address, Gender,
Salary, SuperSSN, DNO)

values(102660, 'Ali', 'Ahmed', '2002-04-10', 'Fayoum', 'M', null, null, 30);

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Schemas: Filter objects, company, lab4, Tables, departments, dependent, employee, project, works_for, Views, Stored Procedures, Functions, sys

Session: Server: Product: (Ubuntu), Version: 8.0.37-0ubuntu0.24.04.1, Connector: C++, Version: 8.3.0

```
26 • insert into employee
27       (SSN, Fname, Lname, Bdate, Address, Gender, Salary, SuperSSN, DNO)
28 values(102660, 'Ali', 'Ahmed', '2002-04-10', 'Fayoum', 'M', null, null, 30);
29
30 • SELECT * FROM lab4.employee;
31
32
```

#	SSN	Fname	Lname	Bdate	Address	Gender	Salary	SuperSSN	DNO
1	102660	Ali	Ahmed	2002-04-10	Fayoum	M	30
2	102672	Mazen	Saad	2001-04-20	Fayoum	M	500	321654	30
3	112233	Ahmed	Ali	1965-01-01	15 Ali fahmy St.Giza	M	1300	223344	10
4	123456	Hanaa	Sobhy	1973-03-18	38 Abdel Khalik Tharwat St...	F	800	223344	10
5	223344	Kamel	Mohamed	1970-10-15	38 Mohy el dien abo el Ezz ...	M	1800	321654	10
6	321654	Amr	Omran	1963-09-14	44 Hilopolis.Cairo	M	2500
7	512463	Edward	Hanna	1972-08-19	18 Abaas El Sakaad St. Na...	M	1500	321654	30
8	521634	Maged	Raof	1980-06-04	18 Kholosi st.Shobra.Cairo	M	1000	968574	30
9	669955	Mariam	Adel	1982-12-06	269 El-Haram st. Giza	F	750	512463	20
10	968574	Noha	Mohamed	1975-01-02	55 Orabi St. El Mohandisee...	F	1600	321654	20

employee 12

Action Output

#	Time	Action	Message	Duration / Fetch
177	20:12:57	insert into employee (SSN, Fname, Lname, Bdate, Address, Ge...	1 row(s) affected	0.00035 sec / 0...
178	20:12:57	SELECT * FROM lab4.employee LIMIT 0, 1000	10 row(s) returned	0.00035 sec / 0...

Query Completed

3. In the department table
insert new department called "DEPT IT",
with id 100, employee with SSN = 112233 as a manager for this
department.

The start date for this manager is '1-11-2006'

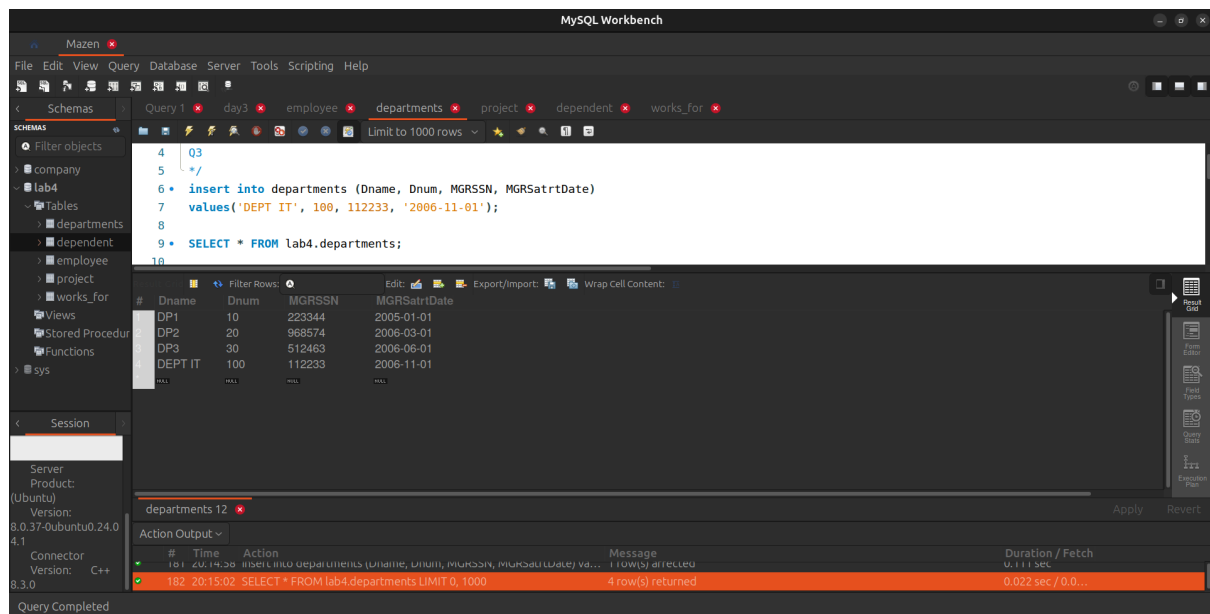
```
/*
```

```
Q3
```

```
*/
```

```
insert into department (Dname, Dnum, MGRSSN, MGRSatrtdDate)  
values('DEPT IT', 100, 112233, '2006-11-01');
```

```
SELECT * FROM lab4.departments;
```



4. Increase salary by 20% for all employees.

```
/*
```

```
Q4 =>
```

```
*/
```

```
SET SQL_SAFE_UPDATES = 0;
```

```
update employee
```

```
set Salary = Salary * 1.20;
```

```
SET SQL_SAFE_UPDATES = 1;
```

```
SELECT * FROM lab4.employee;
```

The screenshot shows the MySQL Workbench interface. The query editor at the top contains the following SQL code:

```
45 Q4 =>
46 /*
47 SET SQL_SAFE_UPDATES = 0;
48 update employee
49 set Salary = Salary * 1.20;
50 SET SQL_SAFE_UPDATES = 1;
51
```

The 'Schemas' pane on the left shows the 'lab4' database selected. The 'Table' pane on the right shows the 'employee' table selected. The main area displays the results of the query, which is a table with 10 rows and 7 columns: SSN, Fname, Lname, Bdate, Address, Gender, and Salary. The table is titled 'employee 18'.

#	SSN	Fname	Lname	Bdate	Address	Gender	Salary
1	102660	Ali	Ahmed	2002-04-10	Fayoum	M	600
2	102672	Mazen	Saad	2001-04-20	Fayoum	M	1560
3	112233	Ahmed	Ali	1965-01-01	15 Ali fahmy St.Giza	M	960
4	123456	Hanaa	Sobhy	1973-03-18	38 Abdel Khalik Tharwat St...	F	2160
5	223344	Kamel	Mohamed	1970-10-15	38 Mohy el dien abo el Ezz ...	M	3000
6	321654	Amr	Omran	1963-09-14	44 Hilopolis.Cairo	M	1800
7	512463	Edward	Hanna	1972-08-19	18 Abaas El Sakaad St. Na...	M	1200
8	521634	Maged	Raof	1980-06-04	18 Kholosi st.Shobra.Cairo	M	900
9	669955	Mariam	Adel	1982-12-06	269 El-Haram st. Giza	F	1920
10	968574	Noha	Mohamed	1975-01-02	55 Orabi St. El Mohandise...	F	321654

The 'Action Output' pane at the bottom shows the execution of the query, indicating that 10 rows were returned and the query completed successfully.

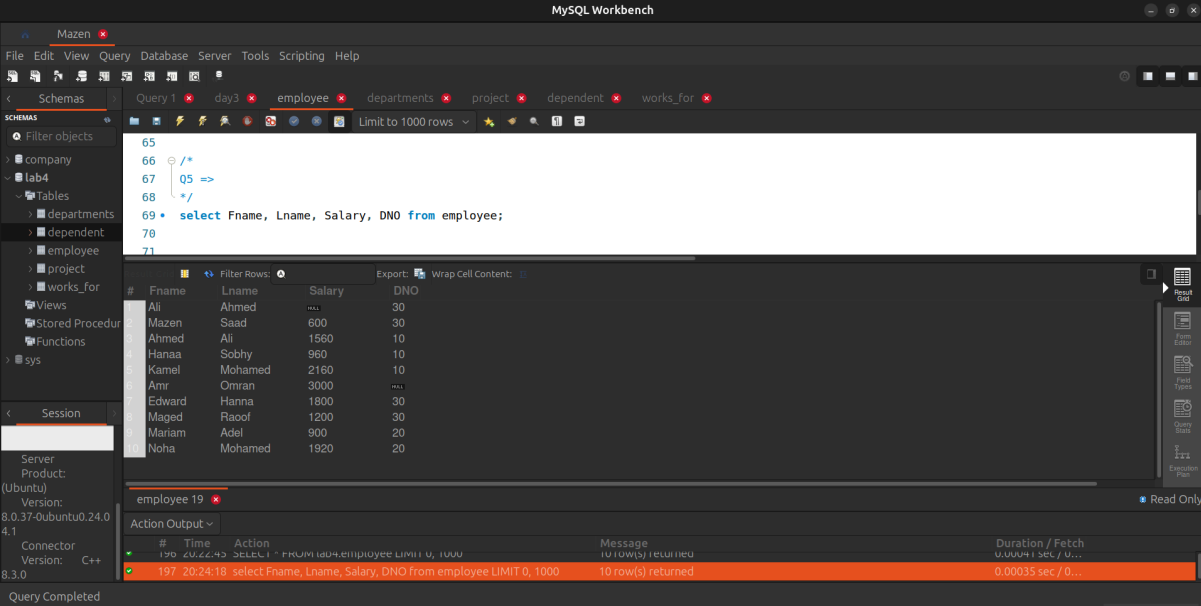
5. Display the employee
First name, last name, Salary and Department number.

```
/*
```

Q5 =>

```
*/
```

```
select Fname, Lname, Salary, DNO from employee;
```



The screenshot shows the MySQL Workbench interface. The 'Schemas' pane on the left lists various databases and tables. The 'Query' pane in the center contains the SQL query: `select Fname, Lname, Salary, DNO from employee;`. The 'Results' pane on the right displays the query output as a table with 10 rows. The 'Action Output' pane at the bottom shows the execution details of the query.

#	Fname	Lname	Salary	DNO
1	Ali	Ahmed	...	30
2	Mazen	Saad	600	30
3	Ahmed	Ali	1560	10
4	Hanaa	Sobhy	960	10
5	Kamel	Mohamed	2160	10
6	Amr	Omran	3000	...
7	Edward	Hanna	1800	30
8	Maged	Raouf	1200	30
9	Mariam	Adel	900	20
10	Noha	Mohamed	1920	20

Query Completed

6. If you know that the company policy is to pay an annual commission for each employee with specific percent equals 10% of his/her annual salary.

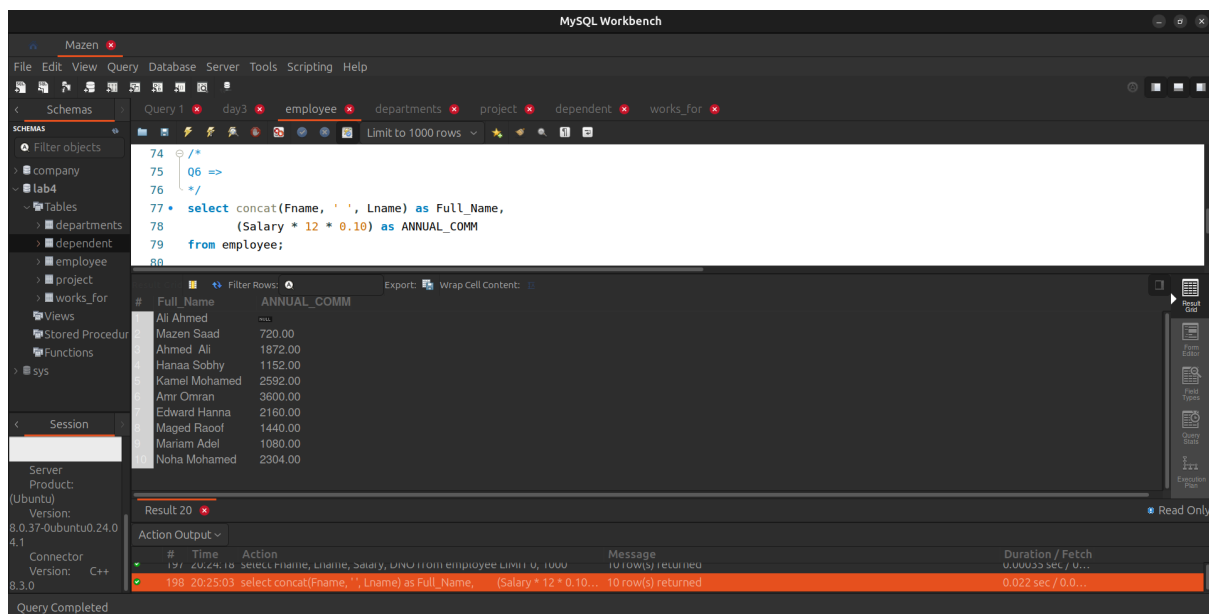
Display each employee full name and his annual commission in an ANNUAL COMM column (alias).

```
/*
```

```
Q6 =>
```

```
*/
```

```
select concat(Fname, ' ', Lname) as Full_Name, (Salary * 12 * 0.10) as  
ANNUAL_COMM  
from employee;
```



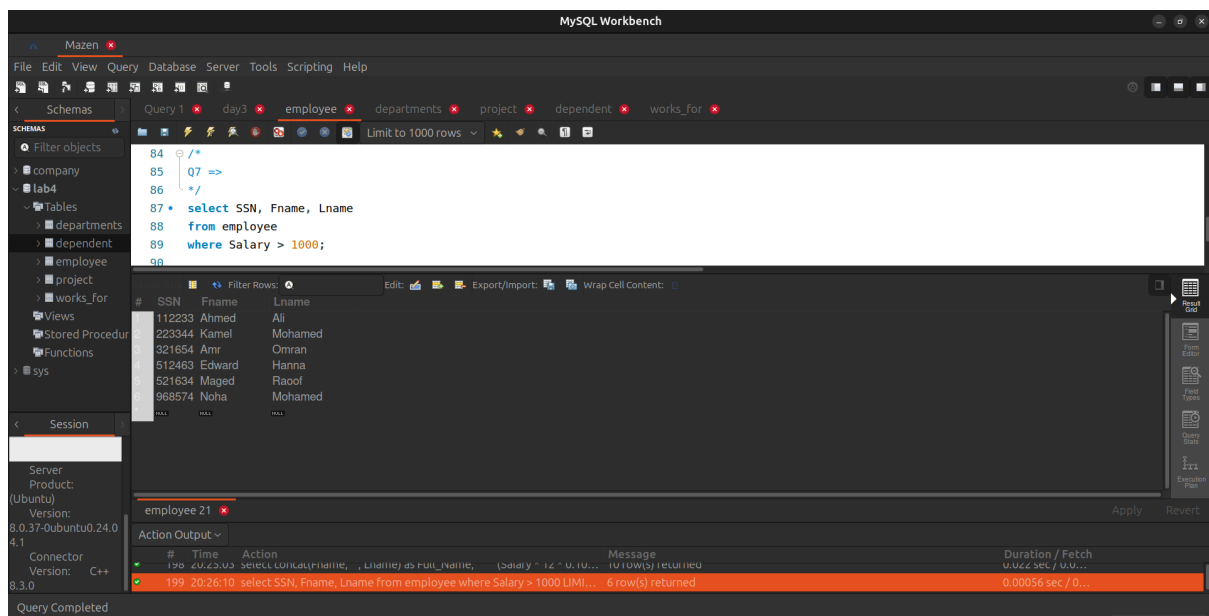
7. Display the employees Id, name who earns more than 1000 LE monthly.

```
/*
```

Q7 =>

```
*/
```

```
select SSN, Fname, Lname  
from employee  
where Salary > 1000;
```



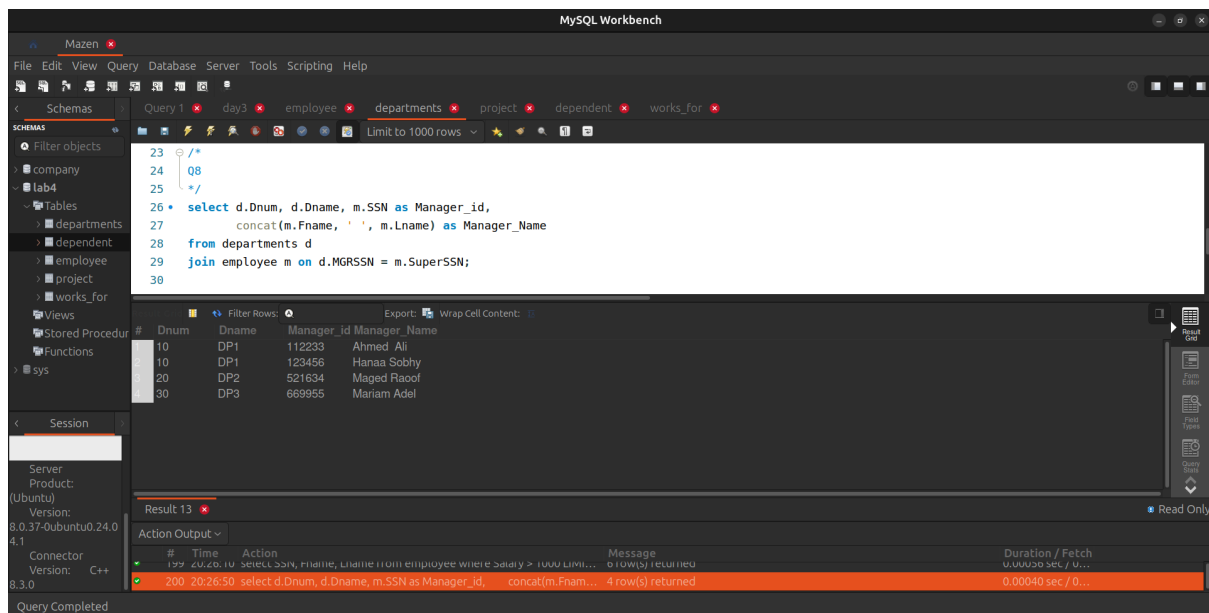
8. Display the
Department id, name and id and the name of its manager.

/*

Q8

*/

```
select d.Dnum, d.Dname, m.SSN as Manager_id,  
       concat(m.Fname, ' ', m.Lname) as Manager_Name  
from departments d  
join employee m on d.MGRSSN = m.SuperSSN;
```



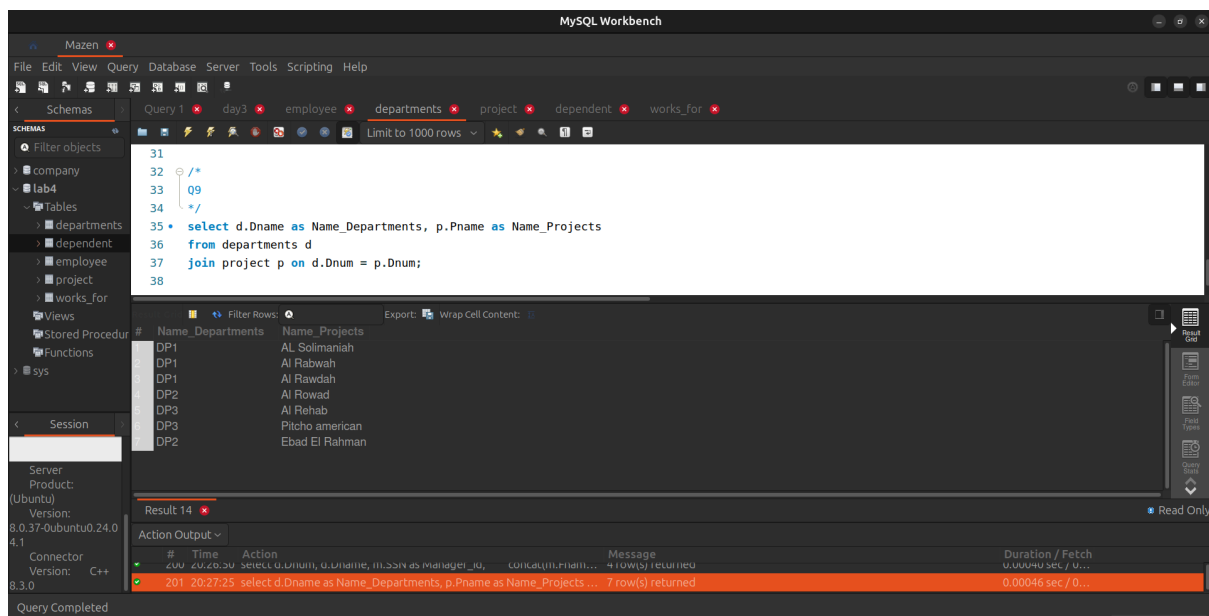
9. Display the
name of the departments and the name of the projects under its control.

```
/*
```

Q9

```
*/
```

```
select d.Dname as Name_Departments, p.Pname as Name_Projects  
from departments d  
join project p on d.Dnum = p.Dnum;
```



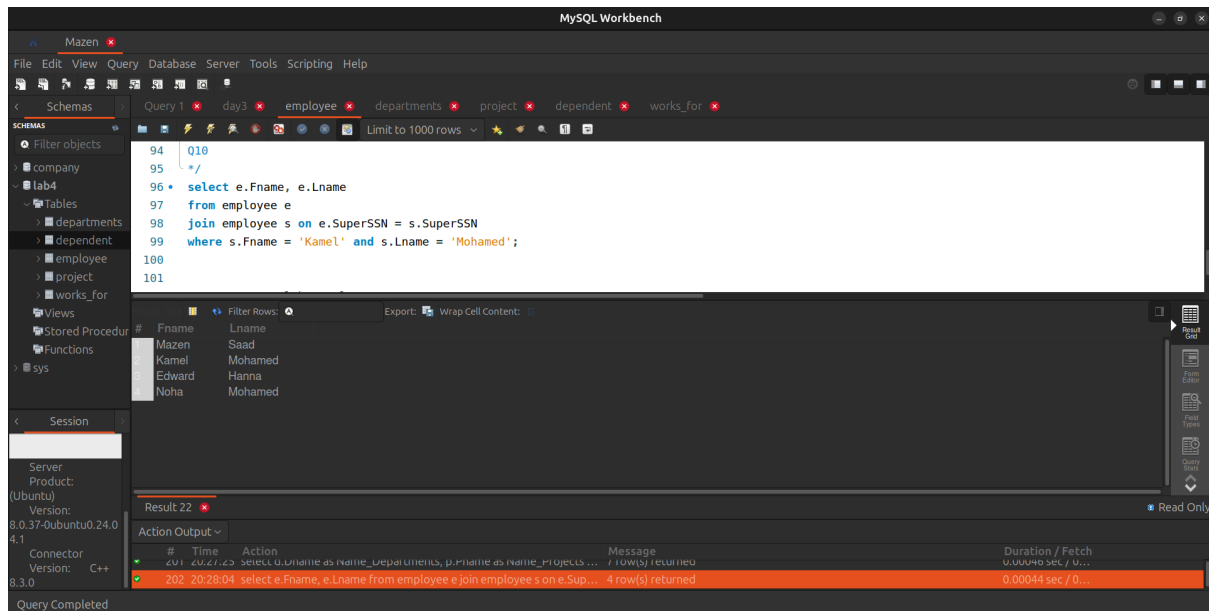
10. Find the
names of the employees who directly supervised with Kamel Mohamed.
-- 321654

/*

Q10

*/

```
select e.Fname, e.Lname
from employee e
join employee s on e.SuperSSN = s.SuperSSN
where s.Fname = 'Kamel' and s.Lname = 'Mohamed';
```



11. Retrieve the names of all employees and the names of the projects they are working on, sorted by the project name.

```
/*
```

Q11

```
*/
```

```
select concat(e.Fname, ' ',e.Lname) as Names_Employees, p.Pname as  
Names_Projects  
from employee e  
join works_for w on e.SSN = w.Essn  
join project p on w.Pno = p.Pnumber  
order by p.Pname;
```

