Firstly Data Manipulating Language:

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

```
1    INSERT INTO employee (Fname,Lname,Bdate,Address,Gender,Salary,SSN,SuperSSN,DNO)
2    VALUES ('Amgad','Shalaby','2001-09-25','Mansoura','Male',10000,102672, 112233, 30);
3    select * from employee
```

SSN	Fname	Lname	Bdate	Address	Gender	Salary	SuperSSN	DNO
102672	Amgad	Shalaby	2001-09-25	Mansoura	Male	10000	112233	30
112233	Ahmed	Ali	1965-01-01	15 Ali fahmy St.Giza	M	1300	223344	10
123456	Hanaa	Sobhy	1973-03-18	38 Abdel Khalik Tharwat St. Downtown.Cairo	F	800	223344	10
223344	Kamel	Mohamed	1970-10-15	38 Mohy el dien abo el Ezz St.Cairo	M	1800	321654	10
321654	Amr	Omran	1963-09-14	44 Hilopolis.Cairo	M	2500	NULL	NULL
512463	Edward	Hanna	1972-08-19	18 Abaas El 3akaad St. Nasr City.Cairo	M	1500	321654	30
521634	Maged	Raoof	1980-06-04	18 Kholosi st.Shobra.Cairo	M	1000	968574	30
669955	Mariam	Adel	1982-12-06	269 El-Haram st. Giza	F	750	512463	20
968574	Noha	Mohamed	1975-01-02	55 Orabi St. El Mohandiseen .Cairo	F	1600	321654	20
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

employee 6   employee 8 ✕

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.

```
1    INSERT INTO employee (Fname,Lname,Bdate,Address,Gender,SSN,DNO)
2    VALUES ('Abdulrahman','Elhanafy','2001-07-23','Mansoura','Male',102660,30);
3 ●  select * from employee
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: IA

SSN	Fname	Lname	Bdate	Address	Gender	Salary	SuperSSN	DNO
102660	Abdulrahman	Elhanafy	2001-07-23	Mansoura	Male	NULL	NULL	30
102672	Amgad	Shalaby	2001-09-25	Mansoura	Male	10000	112233	30
112233	Ahmed	Ali	1965-01-01	15 Ali fahmy St.Giza	M	1300	223344	10
123456	Hanaa	Sobhy	1973-03-18	38 Abdel Khalik Tharwat St. Downtown.Cairo	F	800	223344	10
223344	Kamel	Mohamed	1970-10-15	38 Mohy el dien abo el Ezz St.Cairo	M	1800	321654	10
321654	Amr	Omran	1963-09-14	44 Hilopolis.Cairo	M	2500	NULL	NULL
512463	Edward	Hanna	1972-08-19	18 Abaas El 3akaad St. Nasr City.Cairo	M	1500	321654	30
521634	Maged	Raoof	1980-06-04	18 Kholosi st.Shobra.Cairo	M	1000	968574	30
669955	Mariam	Adel	1982-12-06	269 El-Haram st. Giza	F	750	512463	20
968574	Noha	Mohamed	1975-01-02	55 Orabi St. El Mohandiseen .Cairo	F	1600	321654	20

employee 6   employee 9 ×

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'

Limit to 1000 rows

```
1 ●  INSERT INTO departments (Dname,Dnum,MGRSSN, MGRSatrtDate)
2    VALUES ('DEPT IT',100, 112233, '2006-11-01');
3 ●  select * from departments
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: IA

Dname	Dnum	MGRSSN	MGRSatrtDate
DP1	10	223344	2005-01-01
DP2	20	968574	2006-03-01
DP3	30	512463	2006-06-01
DEPT IT	100	112233	2006-11-01
NULL	NULL	NULL	NULL

Secondly create the following Queries:

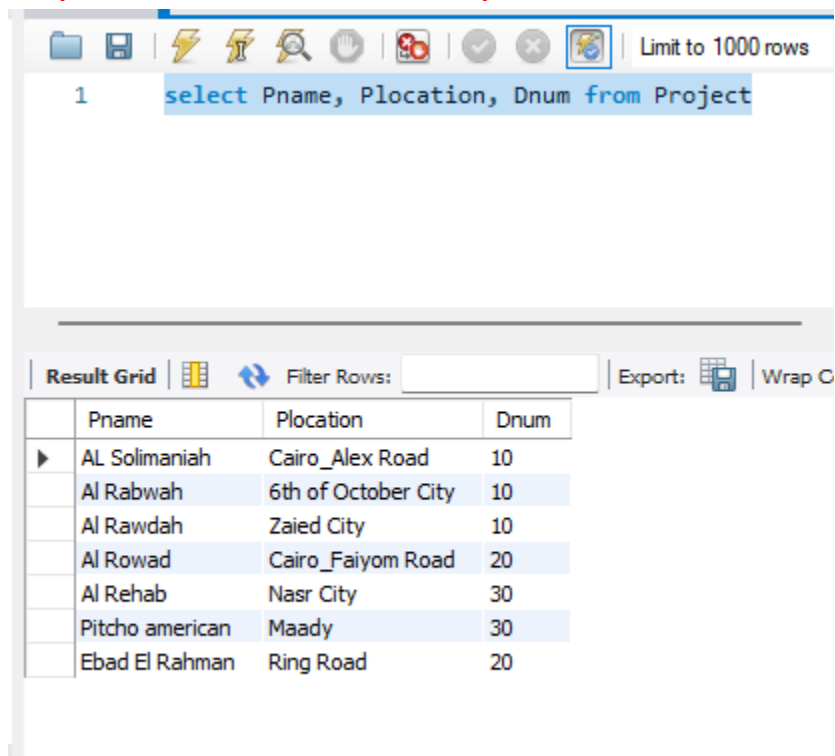## 1. Display all the employees' data.

```
1 • select * from employee
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: |

SSN	Fname	Lname	Bdate	Address	Gender	Salary	SuperSSN	DNO
102660	Abdulrahman	Elhanafy	2001-07-23	Mansoura	Male	NULL	NULL	30
102672	Amgad	Shalaby	2001-09-25	Mansoura	Male	10000	112233	30
112233	Ahmed	Ali	1965-01-01	15 Ali fahmy St.Giza	M	1300	223344	10
123456	Hanaa	Sobhy	1973-03-18	38 Abdel Khalik Tharwat St. Downtown.Cairo	F	800	223344	10
223344	Kamel	Mohamed	1970-10-15	38 Mohy el dien abo el Ezz St.Cairo	M	1800	321654	10
321654	Amr	Omran	1963-09-14	44 Hilopolis.Cairo	M	2500	NULL	NULL
512463	Edward	Hanna	1972-08-19	18 Abaas El 3akaad St. Nasr City.Cairo	M	1500	321654	30
521634	Maged	Raoof	1980-06-04	18 Kholosi st.Shobra.Cairo	M	1000	968574	30
669955	Mariam	Adel	1982-12-06	269 El-Haram st. Giza	F	750	512463	20
968574	Noha	Mohamed	1975-01-02	55 Orabi St. El Mohandiseen .Cairo	F	1600	321654	20

employee 6   employee 14 ×   Apply

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

```
1 • select Fname,Lname,Salary,DNO from employee
```

Result Grid | Filter Rows: | Export: |

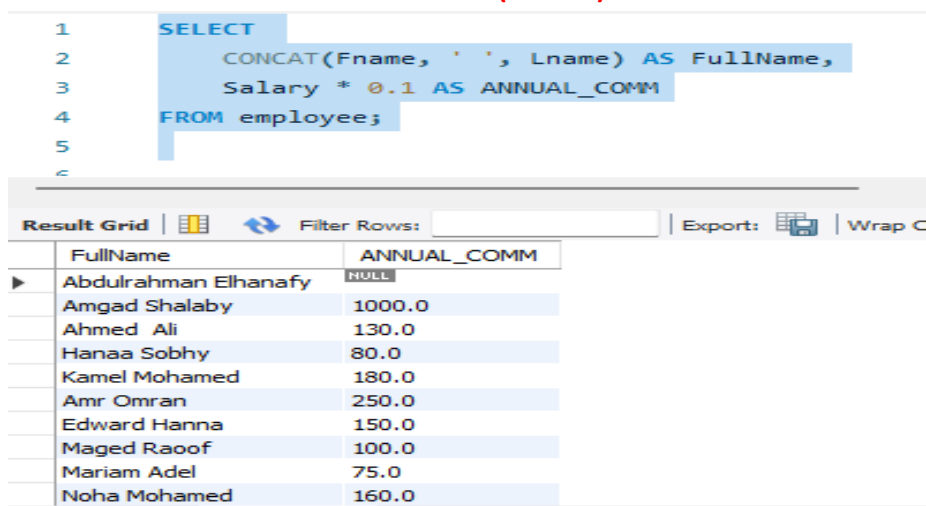| Fname	Lname	Salary	DNO
Abdulrahman	Elhanafy	NULL	30
Amgad	Shalaby	10000	30
Ahmed	Ali	1300	10
Hanaa	Sobhy	800	10
Kamel	Mohamed	1800	10
Amr	Omran	2500	NULL
Edward	Hanna	1500	30
Maged	Raoof	1000	30
Mariam	Adel	750	20
Noha	Mohamed	1600	20

3. Display all the projects names, locations and the department which is responsible about it.

```
1   select Pname, Plocation, Dnum from Project
```

Pname	Plocation	Dnum
AL Solimaniah	Cairo_Alex Road	10
Al Rabwah	6th of October City	10
Al Rawdah	Zaied City	10
Al Rowad	Cairo_Faiyom Road	20
Al Rehab	Nasr City	30
Pitcho american	Maady	30
Ebad El Rahman	Ring Road	20

4. 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).

```
1   SELECT
2       CONCAT(Fname, ' ', Lname) AS FullName,
3       Salary * 0.1 AS ANNUAL_COMM
4   FROM employee;
5
```

FullName	ANNUAL_COMM
Abdulrahman Elhanafy	NULL
Amgad Shalaby	1000.0
Ahmed Ali	130.0
Hanaa Sobhy	80.0
Kamel Mohamed	180.0
Amr Omran	250.0
Edward Hanna	150.0
Maged Raoof	100.0
Mariam Adel	75.0
Noha Mohamed	160.0

5. Display the employees Id, name who earns more than 10000 LE annually.

```sql
1 •  SELECT SSN,
2         CONCAT(Fname, ' ', Lname) AS FullName , Salary
3    FROM
4         employee
5    WHERE
6         Salary > 1000;
7
```

| Result Grid | | Filter Rows: | Export: | Wrap Cell Content |

	SSN	FullName	Salary
▶	102672	Amgad Shalaby	10000
	112233	Ahmed Ali	1300
	223344	Kamel Mohamed	1800
	321654	Amr Omran	2500
	512463	Edward Hanna	1500
	968574	Noha Mohamed	1600

6. Display the names and salaries of the female employees

Limit to 1000 rows

```sql
1 •  SELECT
2         CONCAT(Fname, ' ', Lname) AS FullName , Gender ,Salary
3    FROM
4         employee
5    WHERE
6         Gender='F';
7
```

| Result Grid | | Filter Rows: | Export: | Wrap Cell Content: |

	FullName	Gender	Salary
▶	Hanaa Sobhy	F	800
	Mariam Adel	F	750
	Noha Mohamed	F	1600

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

```sql
1 •  SELECT
2        d.Dnum,
3        d.Dname,
4        e.SSN AS ManagerID,
5        CONCAT(e.Fname, ' ', e.Lname) AS ManagerName
6    FROM
7        departments d
8    JOIN
9        employee e ON d.MGRSSN = e.SSN;
```

Result Grid | Filter Rows: | Export: | Wrap Cell

Dnum	Dname	ManagerID	ManagerName
10	DP1	223344	Kamel Mohamed
20	DP2	968574	Noha Mohamed
30	DP3	512463	Edward Hanna
100	DEPT IT	112233	Ahmed Ali

8. Display the Id, name and location of the projects in Cairo or Alex city.

```sql
1 •  SELECT
2        Pnumber,
3        Pname,
4        Plocation
5    FROM
6        project
7    WHERE
8        City IN ('cairo', 'alex');
9
```

Result Grid | Filter Rows:

Pnumber	Pname	Plocation
100	AL Solimaniah	Cairo_Alex Road
500	Al Rehab	Nasr City
600	Pitcho american	Maady
700	Ebad El Rahman	Ring Road
NULL	NULL	NULL

employee 6   project 39 ×

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

```
1 •   SELECT
2          e.Fname,
3          e.Lname,
4          p.Pname
5     FROM
6          employee e
7     JOIN
8          project p ON e.DNO = p.Dnum
9     ORDER BY
10         p.Pname;
```

Result Grid | Filter Rows: | Ex

Fname	Lname	Pname
Ahmed	Ali	Al Rabwah
Hanaa	Sobhy	Al Rabwah
Kamel	Mohamed	Al Rabwah
Ahmed	Ali	Al Rawdah
Hanaa	Sobhy	Al Rawdah
Kamel	Mohamed	Al Rawdah
Abdulrahman	Elhanafy	Al Rehab

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

```
1 •   SELECT
2          e.Fname,
3          e.Lname
4     FROM
5          employee e
6     JOIN
7          employee s ON e.SuperSSN = s.SSN
8     WHERE
9          s.Fname = 'Kamel' AND s.Lname = 'Mohamed';
10
```

Result Grid | Filter Rows: | Export: | Wrap Ce

Fname	Lname
Ahmed	Ali
Hanaa	Sobhy