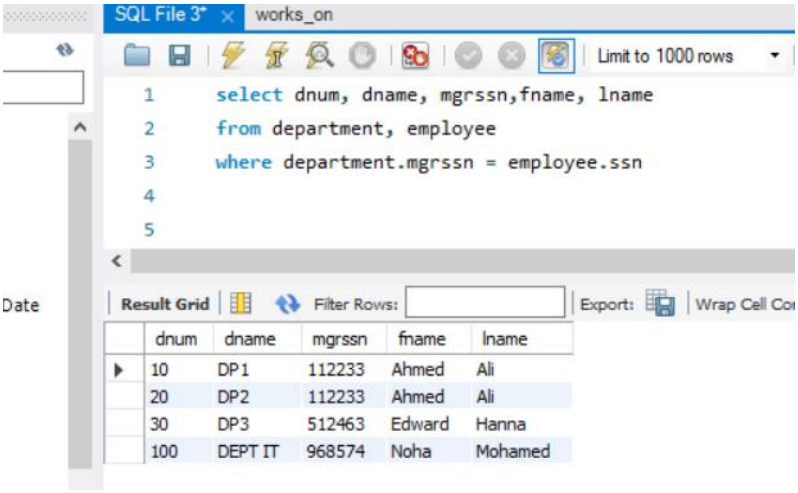
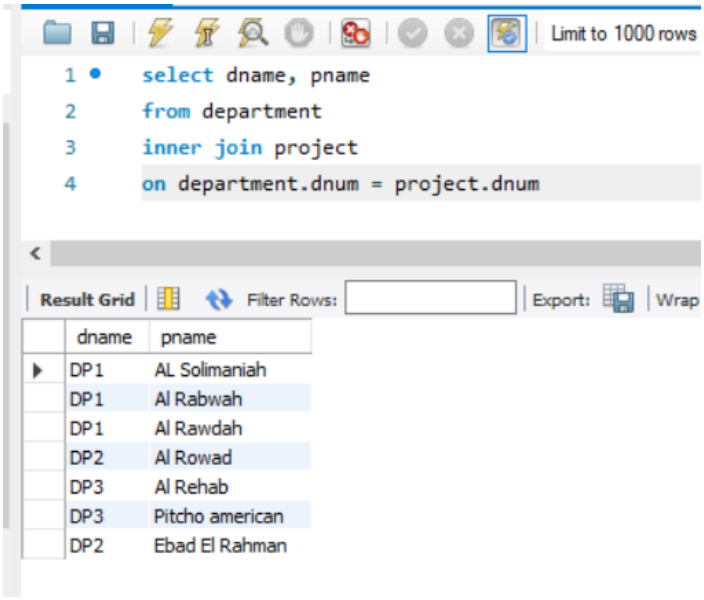
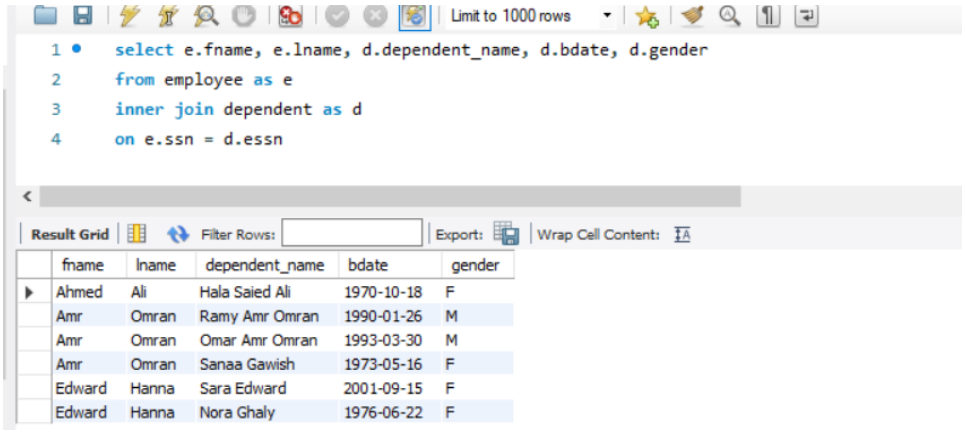
1-


SQL File 3*
works_on
Limit to 1000 rows
select dnum, dname, mgrssn,fname, lname
from department, employee
where department.mgrssn = employee.ssn
Result Grid
Filter Rows:
Export:
Wrap Cell Co
dnum dname mgrssn fname lname
10 DP1 112233 Ahmed Ali
20 DP2 112233 Ahmed Ali
30 DP3 512463 Edward Hanna
100 DEPT IT 968574 Noha Mohamed

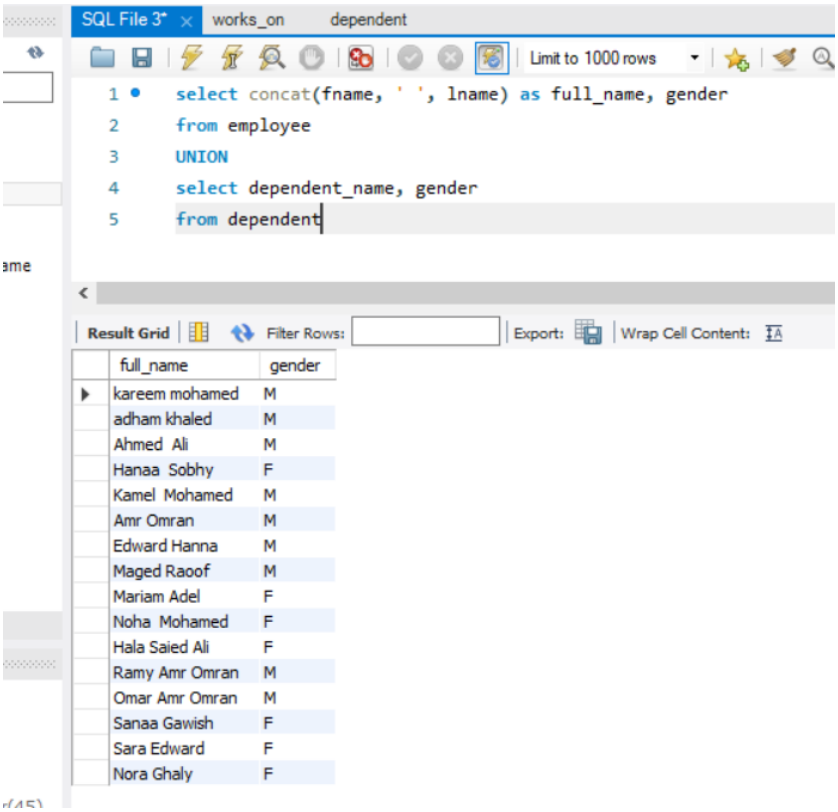
2-


Limit to 1000 rows
select dname, pname
from department
inner join project
on department.dnum = project.dnum
Result Grid
Filter Rows:
Export:
Wrap
dname pname
DP1 AL Solimaniah
DP1 Al Rabwah
DP1 Al Rawdah
DP2 Al Rowad
DP3 Al Rehab
DP3 Pitcho american
DP2 Ebad El Rahman

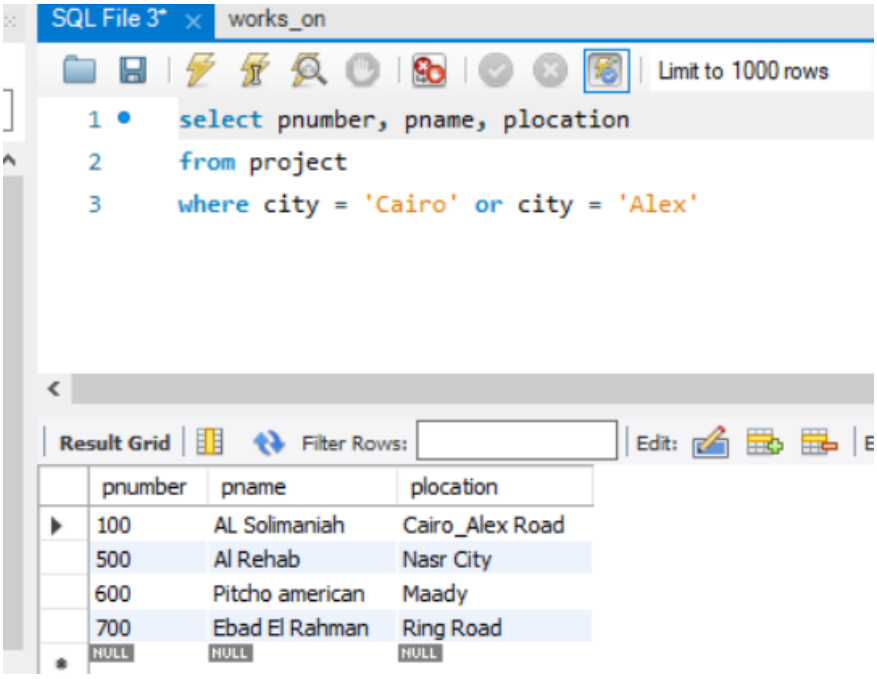
3-


Limit to 1000 rows
select e.fname, e.lname, d.dependent_name, d.bdate, d.gender
from employee as e
inner join dependent as d
on e.ssn = d.essn
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
fname lname dependent_name bdate gender
Ahmed Ali Hala Saied Ali 1970-10-18 F
Amr Omran Ramy Amr Omran 1990-01-26 M
Amr Omran Omar Amr Omran 1993-03-30 M
Amr Omran Sanaa Gawish 1973-05-16 F
Edward Hanna Sara Edward 2001-09-15 F
Edward Hanna Nora Ghaly 1976-06-22 F

4-


SQL File 3*
works_on
dependent
Limit to 1000 rows
select concat(fname, ' ', lname) as full_name, gender
from employee
UNION
select dependent_name, gender
from dependent
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
full_name gender
kareem mohamed M
adham khaled M
Ahmed Ali M
Hanaa Sobhy F
Kamel Mohamed M
Amr Omran M
Edward Hanna M
Maged Raoof M
Mariam Adel F
Noha Mohamed F
Hala Saied Ali F
Ramy Amr Omran M
Omar Amr Omran M
Sanaa Gawish F
Sara Edward F
Nora Ghaly F

5-


SQL File 3*
works_on
Limit to 1000 rows
select pnumber, pname, plocation
from project
where city = 'Cairo' or city = 'Alex'
Result Grid
Filter Rows:
Edit:
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

6-

```
1  select *
2  from project
3  where pname like 'a%'
```

Result Grid | Filter Rows: | Edit: | Export/Import:

pname	pnumber	plocation	city	dnum
AL Solimaniah	100	Cairo_Alex Road	Alex	10
Al Rabwah	200	6th of October City	Giza	10
Al Rawdah	300	Zaied City	Giza	10
Al Rowad	400	Cairo_Faiyom Road	Giza	20
Al Rehab	500	Nasr City	Cairo	30
NULL	NULL	NULL	NULL	NULL

7-

```
1  select *
2  from employee
3  where dno = 30
4  AND
5  salary between 1000 and 2000
```

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

fname	lname	ssn	bdate	address	gender	salary	superssn	dno
adham	khaled	102672	2001-03-12	18 Hadayek El Kobba.cairo	M	2000	112233	30
Edward	Hanna	512463	1972-08-19	18 Abaas El 3akaad St. Nasr City.Cairo	M	1500	321654	30
Maged	Raoof	521634	1980-04-06	18 Kholosi st.Shobra.Cairo	M	1000	968574	30
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

8-

```sql
select concat(fname, ' ', lname) as full_name
from employee as e
inner join works_on as w
on e.ssn = w.essn
where e.dno = 20
and
w.pno = (select pnumber from project where pname = 'Al Rawdah')
and
w.weekly_hours >= 10
```

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

full_name
Mariam Adel
Noha Mohamed

9-

```sql
-- 9. Find the names of the employees who directly supervised with Amr Omran.
select concat(fname, ' ',lname)
from employee
where superssn = (select ssn from employee where fname = 'AMR' and lname = 'Omran')
```

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

concat(fname, ' ',lname)
Kamel Mohamed
Edward Hanna
Noha Mohamed

10-

```sql
select p.pname, sum(w.weekly_hours) as total_hours
from project as p
inner join works_on as w
on p.pnumber= w.pno
group by p.pname
```

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

pname	total_hours
AL Solimaniah	40
Al Rehab	20
Pitcho american	45
Al Rawdah	26
Al Rowad	39
Ebad El Rahman	22

11-

```
1  select concat(e.fname, ' ', e.lname) as full_name, p.pname
2  from employee as e
3  inner join works_on as w
4  on e.ssn = w.essn
5  inner join project as p
6  on p.pnumber = w.pno
7  order by p.pname asc
```

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

full_name	pname
Maged Raoof	Al Rawdah
Mariam Adel	Al Rawdah
Noha Mohamed	Al Rawdah
Edward Hanna	Al Rehab
Maged Raoof	Al Rehab
Maged Raoof	Al Rowad
Mariam Adel	Al Rowad
Noha Mohamed	Al Rowad
Ahmed Ali	AL Solimaniah
Mariam Adel	Ebad El Rahman
Noha Mohamed	Ebad El Rahman
Edward Hanna	Pitcho american
Maged Raoof	Pitcho american

12-

```
1  select *
2  from department
3  where department.dnum = (select dno from employee order by ssn limit 1)
```

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

dnum	dname	mgrssn	MGRStart Date
30	DP3	512463	2006-06-01
NULL	NULL	NULL	NULL

13-

```
1  select d.dname, max(e.salary) as max_salary , min(e.salary) as min_salary , avg(e.salary) as avg_salary
2  from employee as e
3  inner join department as d
4  on e.dno = d.dnum
5  group by d.dname
```

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

dname	max_salary	min_salary	avg_salary
DP1	1800	800	1386.6667
DP2	1600	750	1175.0000
DP3	2000	1000	1500.0000

14-

```
select concat(e.fname, ' ',e.lname) as full_name
from department as d
inner join employee as e
on d.mgrssn = e.ssn
where d.mgrssn not in (select essn from dependent)
```

full_name
Noha Mohamed

15-

```
select d.dname, d.dnum, count(*)
from department as d
inner join employee as e
on d.dnum = e.dno
group by d.dnum, d.dname
having avg(e.salary) < (select avg(salary) from employee)
```

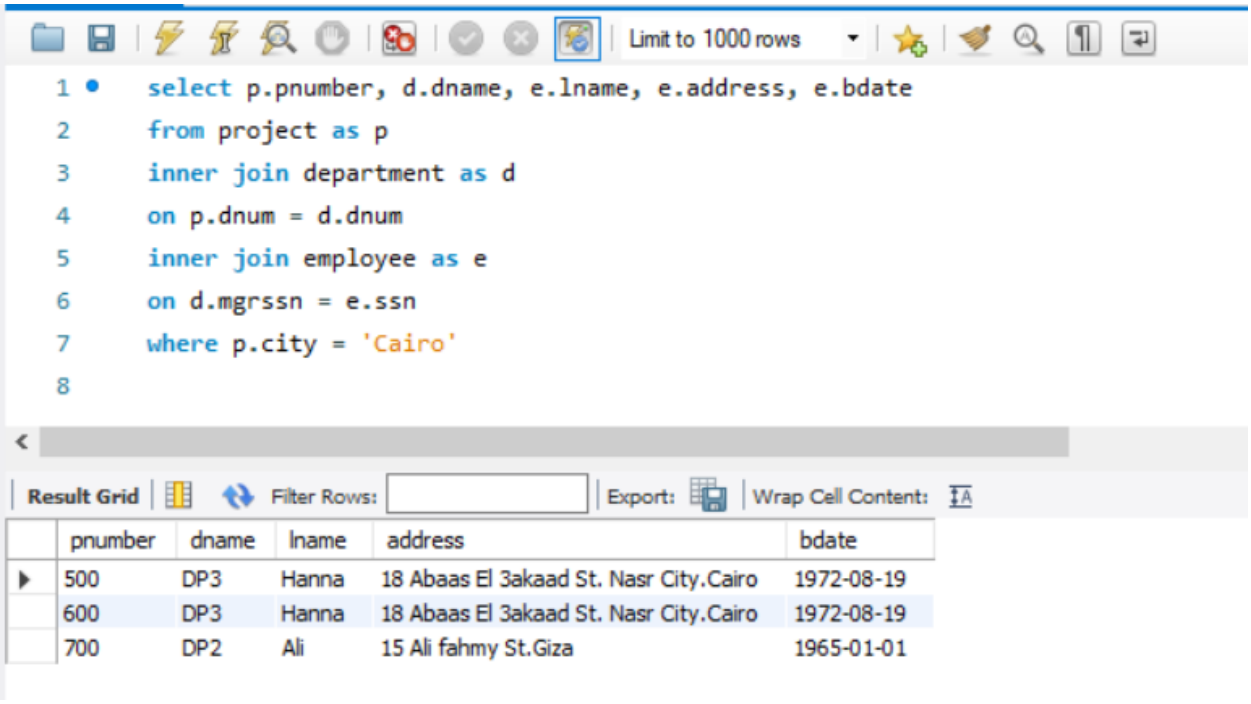
dname	dnum	count(*)
DP1	10	3
DP2	20	2
DP3	30	4

16-

```
select e.fname, e.lname, e.ssn, e.bdate, e.address, e.gender, e.salary, e.superssn, e.dno,
p.pname, p.pnumber, p.plocation, p.city, p.dnum
from employee as e
inner join works_on as w
on e.ssn = w.essn
inner join project as p
on w.pno = p.pnumber
order by e.dno, e.lname, e.fname
```

fname	lname	ssn	bdate	address	gender	salary	superssn	dno	pname	pnumber	plocation	city	dnum
Ahmed	Ali	112233	1965-01-01	15 Ali fahmy St.Giza	M	1560	112233	10	AL Solimaniah	100	Cairo_Alex Road	Alex	10
Mariam	Adel	669955	1982-06-12	269 El-Haram st. Giza	F	750	512463	20	Al Rawdah	300	Zaied City	Giza	10
Mariam	Adel	669955	1982-06-12	269 El-Haram st. Giza	F	750	512463	20	Al Rowad	400	Cairo_Faiyom Road	Giza	20
Mariam	Adel	669955	1982-06-12	269 El-Haram st. Giza	F	750	512463	20	Ebad El Rahman	700	Ring Road	Cairo	20
Noha	Mohamed	968574	1975-02-01	55 Orabi St. El Mohandiseen .Cairo	F	1600	321654	20	Al Rawdah	300	Zaied City	Giza	10
Noha	Mohamed	968574	1975-02-01	55 Orabi St. El Mohandiseen .Cairo	F	1600	321654	20	Al Rowad	400	Cairo_Faiyom Road	Giza	20
Noha	Mohamed	968574	1975-02-01	55 Orabi St. El Mohandiseen .Cairo	F	1600	321654	20	Ebad El Rahman	700	Ring Road	Cairo	20
Edward	Hanna	512463	1972-08-19	18 Abaas El 3akaad St. Nasr City.Cairo	M	1500	321654	30	Al Rehab	500	Nasr City	Cairo	30
Edward	Hanna	512463	1972-08-19	18 Abaas El 3akaad St. Nasr City.Cairo	M	1500	321654	30	Pitcho american	600	Maady	Cairo	30
Maged	Raoof	521634	1980-04-06	18 Kholosi st.Shobra.Cairo	M	1000	968574	30	Al Rawdah	300	Zaied City	Giza	10
Maged	Raoof	521634	1980-04-06	18 Kholosi st.Shobra.Cairo	M	1000	968574	30	Al Rowad	400	Cairo_Faiyom Road	Giza	20
Maged	Raoof	521634	1980-04-06	18 Kholosi st.Shobra.Cairo	M	1000	968574	30	Al Rehab	500	Nasr City	Cairo	30
Maged	Raoof	521634	1980-04-06	18 Kholosi st.Shobra.Cairo	M	1000	968574	30	Pitcho american	600	Maady	Cairo	30

17-


Limit to 1000 rows
1 • select p.pnumber, d.dname, e.lname, e.address, e.bdate
2 from project as p
3 inner join department as d
4 on p.dnum = d.dnum
5 inner join employee as e
6 on d.mgrssn = e.ssn
7 where p.city = 'Cairo'
8
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
pnumber dname lname address bdate
500 DP3 Hanna 18 Abaas El 3akaad St. Nasr City.Cairo 1972-08-19
600 DP3 Hanna 18 Abaas El 3akaad St. Nasr City.Cairo 1972-08-19
700 DP2 Ali 15 Ali fahmy St.Giza 1965-01-01