

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

```
92
93
94 • select dname,pname
95 from Departments d inner join Project p
96 on d.Dnum=p.Dnum
97
```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
dname	pname			
DP1	AL Solimaniah			
DP1	Al Rabwah			
DP1	Al Rawdah			
DP2	Al Rowad			
DP3	Al Rehab			
DP3	Pitcho american			
DP2	Ebad El Rahman			



Result 1		Output	
		Action Output	
#	Time	Action	Message
1	22:30:19	select dname,pname from Departments d inner join Project p on d.Dnum=p.Dnum LIMIT 0, 1000	7 row(s) returned

2. Display the full data about all the dependence associated with the name of the employee they depend on him/her.

```

98
99 • select fname,d.*
100 from Dependent d inner join Employee e
101 on ssn=ESSN
102

```

Result Grid					
Filter Rows: <input type="text"/>					
Export:  Wrap Cell Content: 					
	fname	ESSN	Dependent_name	Sex	BDate
▶	Ahmed	112233	Hala Saied Ali	F	1970-10-18 00:00:00
	Kamel	223344	Ahmed Kamel Shawki	M	1998-03-27 00:00:00
	Kamel	223344	Mona Adel Mohamed	F	1975-04-25 00:00:00
	Amr	321654	Omar Amr Omran	M	1993-03-30 00:00:00
	Amr	321654	Ramy Amr Omran	M	1990-01-26 00:00:00
	Amr	321654	Sanaa Gawish	F	1973-05-16 00:00:00
	Edward	512463	Nora Ghaly	F	1976-06-22 00:00:00
	Edward	512463	Sara Edward	F	2001-09-15 00:00:00

3. Display the Projects full data of the projects with a name starts with "a" letter.

102

103 • `select * from Project`

104 `where pname like 'a%'`

105

106

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

4. display all the employees in department 30 whose salary from 1000 to 2000 LE monthly

105

106 • `select E.*`

107 `from Employee e inner join Departments d`

108 `on dnum=dno and dno=30 and Salary >=1000 and Salary<=2000;`

109

<

Result Grid										Filter Rows:	Export:	Wrap Cell Content:
	SSN	Fname	Lname	Bdate	Address	Gender	Salary	SuperSSN	DNO			
▶	512463	Edward	Hanna	1972-08-19	18 Abaas El Zakaad St. Nasr City,Cairo	M	1500	321654	30			
	521634	Maged	Raouf	1980-06-04	18 Kholosi st.Shobra,Cairo	M	1000	968574	30			

5. Retrieve the names of all employees in department 10 who works more than or equal 10 hours per week on "AL Rabwah" project.

```
110 • select e.*
111 from Employee e inner join Works_for w
112 on e.SSN=w.ESSN and e.dno=10
113 inner join Project
114 on Pnumber=Pno and hours>=10 and Pname='AL Rabwah';
115
116
117
```

<

Result Grid | Filter Rows: | Export: | Wrap Cell Content: [I](#)

	SSN	Fname	Lname	Bdate	Address	Gender	Salary	SuperSSN	DNO
▶	223344	Kamel	Mohamed	1970-10-15	38 Mohy el dien abo el Ezz St.Cairo	M	1800	321654	10

6. For each project, list the project name and the total hours per week (for all employees) spent on that project.

```

116
117 • select pname,sum(hours) as total_hours
118 from Project ,Works_for
119 where Pnumber=pno
120 group by pname;

```

<

Result Grid   Filter Rows:  Export:  Wrap Cell Content: 

	pname	total_hours
▶	AL Solimaniah	50
	Al Rabwah	10
	Al Rawdah	36
	Al Rowad	39
	Al Rehab	30
	Pitcho american	45
	Ebad El Rahman	22

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

```

123 • select fname,pname
124 from Employee inner join Departments d
125 on Dnum=dno
126 inner join Project p
127 on d.Dnum=p.Dnum
128 order by Pname;
129

```

Result Grid

	fname	pname
▶	Ahmed	Al Rabwah
	Hanaa	Al Rabwah
	Kamel	Al Rabwah
	Ahmed	Al Rawdah
	Hanaa	Al Rawdah
	Kamel	Al Rawdah
	ahmed	Al Rehab
	NULL	Al Rehab
	Edward	Al Rehab
	Maged	Al Rehab
	Mariam	Al Rowad
	Noha	Al Rowad
	Ahmed	Al Solima...

8. Display the data of the department which has the smallest employee ID over all employees' ID.

129

130 • `select d.*`

131 `from Departments d ,Employee e`

132 `where d.dnum=e.dno and ssn =( select min(ssn) from Employee e);`

133

134

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

	Dname	Dnum	MGRSSN	MGRSsttDate
▶	DP3	30	512463	2006-06-01

9. For each department, retrieve the department name and the maximum, minimum and average salary of its employees.

133

134

135 • `select min(salary) as min_val,max(salary) as max_value,avg(salary) as avg_val ,dname`

136 `from Employee e,Departments d`

137 `where d.Dnum=e.Dno`

138 `group by Dname;`

139




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

	min_val	max_value	avg_val	dname
▶	800	1800	1300.0000	DP1
	750	1600	1175.0000	DP2
	1000	1500	1250.0000	DP3

10. List the last name of all managers who have no dependents.

```
141 • select distinct lname
142     from Employee inner join Departments
143     on ssn=MGRSSN
144     left join Dependent
145     on ssn=ESSN
146     where essn is null;
147
```

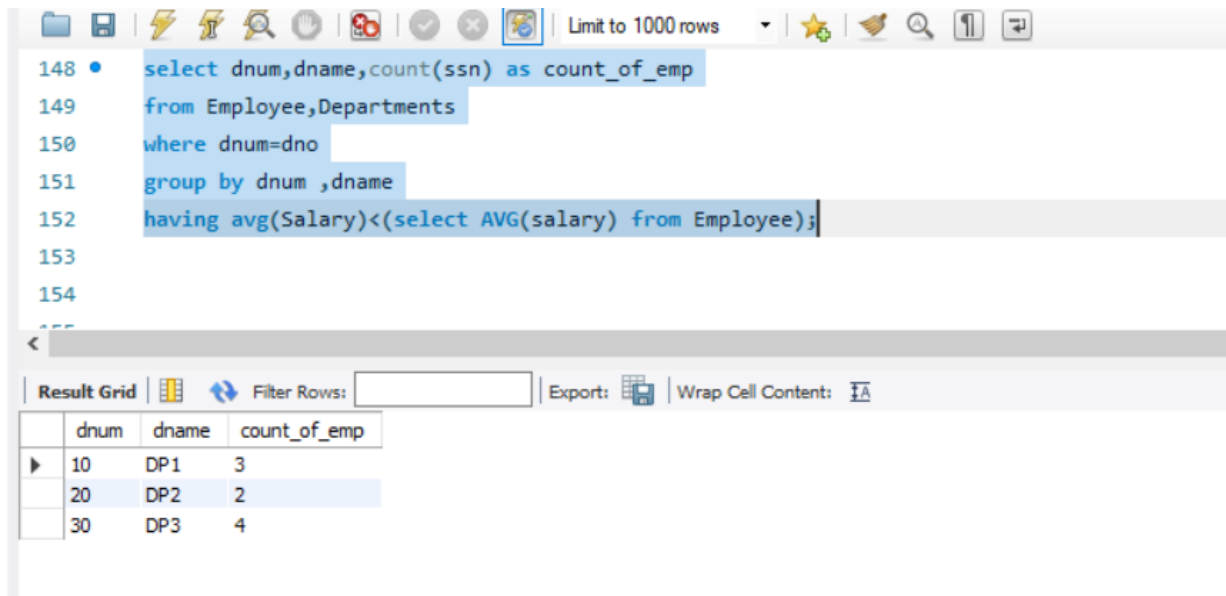
<

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

	lname
▶	Mohamed

11. For each department-- if its average salary is less than the average salary of all employees-- display its number, name and number of its employees.





The screenshot shows a SQL IDE interface. The top toolbar includes icons for file operations, execution, and a 'Limit to 1000 rows' dropdown. The SQL editor contains the following query:

```
148 • select dnum,dname,count(ssn) as count_of_emp
149 from Employee,Departments
150 where dnum=dno
151 group by dnum ,dname
152 having avg(Salary)<(select AVG(salary) from Employee);
153
154
155
```

Below the editor is the 'Result Grid' section, which includes a 'Filter Rows' input field, an 'Export' button, and a 'Wrap Cell Content' checkbox. The results are displayed in a table with three columns: dnum, dname, and count\_of\_emp.

	dnum	dname	count_of_emp
▶	10	DP1	3
	20	DP2	2
	30	DP3	4

12.Retrieve a list of employees and the projects they are working on ordered by department and within each department, ordered alphabetically by last name, first name.

```

155 • select fname,lname,pname
156       from Employee inner join Departments d
157       on dnum=dno
158       inner join Project p
159       on d.Dnum=p.Dnum
160       order by d.dnum,Lname,Fname;
161

```

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

	fname	lname	pname
▶	Ahmed	Ali	AL Solimaniah
	Ahmed	Ali	Al Rabwah
	Ahmed	Ali	Al Rawdah
	Kamel	Mohamed	AL Solimaniah
	Kamel	Mohamed	Al Rabwah
	Kamel	Mohamed	Al Rawdah
	Hanaa	Sobhy	AL Solimaniah
	Hanaa	Sobhy	Al Rabwah
	Hanaa	Sobhy	Al Rawdah
	Mariam	Adel	Al Rowad
	Mariam	Adel	Ebad El Rah...
	Noha	Mohamed	Al Rowad
	Noha	Mohamed	Fhad El Rah...

13. For each project located in Cairo, find the project number, the controlling department name, the department manager last name, address and birthdate

```

162 • select pnumber,dname,lname,address,bdate
163 from Project p inner join Departments d
164 on d.Dnum=p.Dnum and city='cairo'
165 inner join Employee
166 on ssn=MGRSSN;

```

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	Mohamed	55 Orabi St. El Mohandiseen ,Cairo	1975-01-02