

C03 - Queries with database EMPLOYEESDB and the tables DEPARTMENTS and EMPLOYEES from [this script](#).

Do the following queries:

1. Show the last name, occupation and department number of each employee.

```
mysql> SELECT surname, occupation, dept_num  
-> FROM EMPLOYEES;
```

surname	occupation	dept_num
PITT	OWNER	20
REDLEAF	EMPLOYEE	20
DERN	SALESMAN	30
ROBINSON	SALESMAN	30
DI CAPRIO	MANAGER	20
HERRIMAN	SALESMAN	30
BRONSON	MANAGER	30
ROBBIE	MANAGER	10
MADISON	ANALYST	20
DUNHAM	SALESMAN	30
RITTEN	EMPLOYEE	20
COLLINS	EMPLOYEE	30
ROWLING	ANALYST	20
HARRIS	EMPLOYEE	10
QUALLEY	MANAGER	20
FANNING	MANAGER	20

```
16 rows in set (0.00 sec)
```

2. Show the number and name of each department.

```
mysql> SELECT num, name  
-> FROM DEPARTMENTS;
```

num	name
10	ACCOUNTING
20	RESEARCH
30	SALES
40	PRODUCTION

```
4 rows in set (0.00 sec)
```

3. Show all the data of all the employees.

```
mysql> SELECT *
-> FROM EMPLOYEES;
```

num	surname	name	occupation	manager	begin_date	salary	commission	dept_num
1000	PITT	BRAD	OWNER	NULL	1984-01-01	104000	NULL	20
7369	REDLEAF	JANE	EMPLOYEE	8001	1990-12-17	104000	NULL	20
7499	DERN	BRUCE	SALESMAN	7698	1990-02-20	15000	390	30
7521	ROBINSON	SARAH	SALESMAN	7782	1991-02-22	16250	650	30
7566	DI CAPRIO	LEONARDO	MANAGER	1000	1991-04-02	29000	NULL	20
7654	HERRIMAN	DAMON	SALESMAN	7698	1991-09-29	16000	1020	30
7698	BRONSON	CHARLES	MANAGER	1000	1991-05-01	30050	NULL	30
7782	ROBBIE	MARGOT	MANAGER	1000	1991-06-09	28850	NULL	10
7788	MADISON	MIKEY	ANALYST	8000	1991-11-09	30000	NULL	20
7844	DUNHAM	LENA	SALESMAN	7698	1991-09-08	13500	0	30
7876	RITTEN	REBECCA	EMPLOYEE	7788	1991-09-23	14300	NULL	20
7900	COLLINS	CLIFTON	EMPLOYEE	8001	1991-12-03	13350	NULL	30
7902	ROWLING	KANSAS	ANALYST	8000	1991-12-03	30000	NULL	20
7934	HARRIS	DANIELLE	EMPLOYEE	8001	1992-01-23	16900	NULL	10
8000	QUALLEY	MARGARET	MANAGER	1000	1991-01-09	28850	NULL	20
8001	FANNING	DAKOTA	MANAGER	1000	1992-06-10	28850	NULL	20

16 rows in set (0.00 sec)

4. Employee data sorted by last name ascendent.

```
mysql> SELECT * FROM EMPLOYEES ORDER BY surname asc;
```

num	surname	name	occupation	manager	begin_date	salary	commission	dept_num
7698	BRONSON	CHARLES	MANAGER	1000	1991-05-01	30050	NULL	30
7900	COLLINS	CLIFTON	EMPLOYEE	8001	1991-12-03	13350	NULL	30
7499	DERN	BRUCE	SALESMAN	7698	1990-02-20	15000	390	30
7566	DI CAPRIO	LEONARDO	MANAGER	1000	1991-04-02	29000	NULL	20
7844	DUNHAM	LENA	SALESMAN	7698	1991-09-08	13500	0	30
8001	FANNING	DAKOTA	MANAGER	1000	1992-06-10	28850	NULL	20
7934	HARRIS	DANIELLE	EMPLOYEE	8001	1992-01-23	16900	NULL	10
7654	HERRIMAN	DAMON	SALESMAN	7698	1991-09-29	16000	1020	30
7788	MADISON	MIKEY	ANALYST	8000	1991-11-09	30000	NULL	20
1000	PITT	BRAD	OWNER	NULL	1984-01-01	104000	NULL	20
8000	QUALLEY	MARGARET	MANAGER	1000	1991-01-09	28850	NULL	20
7369	REDLEAF	JANE	EMPLOYEE	8001	1990-12-17	104000	NULL	20
7876	RITTEN	REBECCA	EMPLOYEE	7788	1991-09-23	14300	NULL	20
7782	ROBBIE	MARGOT	MANAGER	1000	1991-06-09	28850	NULL	10
7521	ROBINSON	SARAH	SALESMAN	7782	1991-02-22	16250	650	30
7902	ROWLING	KANSAS	ANALYST	8000	1991-12-03	30000	NULL	20

16 rows in set (0.01 sec)

5. Employee data sorted by department number descending.

```
mysql> SELECT * FROM EMPLOYEES ORDER BY dept_num desc;
```

num	surname	name	occupation	manager	begin_date	salary	commission	dept_num
7499	DERN	BRUCE	SALESMAN	7698	1990-02-20	15000	390	30
7521	ROBINSON	SARAH	SALESMAN	7782	1991-02-22	16250	650	30
7654	HERRIMAN	DAMON	SALESMAN	7698	1991-09-29	16000	1020	30
7698	BRONSON	CHARLES	MANAGER	1000	1991-05-01	30050	NULL	30
7844	DUNHAM	LENA	SALESMAN	7698	1991-09-08	13500	0	30
7900	COLLINS	CLIFTON	EMPLOYEE	8001	1991-12-03	13350	NULL	30
1000	PITT	BRAD	OWNER	NULL	1984-01-01	104000	NULL	20
7369	REDLEAF	JANE	EMPLOYEE	8001	1990-12-17	104000	NULL	20
7566	DI CAPRIO	LEONARDO	MANAGER	1000	1991-04-02	29000	NULL	20
7788	MADISON	MIKEY	ANALYST	8000	1991-11-09	30000	NULL	20
7876	RITTEN	REBECCA	EMPLOYEE	7788	1991-09-23	14300	NULL	20
7902	ROWLING	KANSAS	ANALYST	8000	1991-12-03	30000	NULL	20
8000	QUALLEY	MARGARET	MANAGER	1000	1991-01-09	28850	NULL	20
8001	FANNING	DAKOTA	MANAGER	1000	1992-06-10	28850	NULL	20
7782	ROBBIE	MARGOT	MANAGER	1000	1991-06-09	28850	NULL	10
7934	HARRIS	DANIELLE	EMPLOYEE	8001	1992-01-23	16900	NULL	10

16 rows in set (0.00 sec)

6. Employee data sorted by department number descending and, within each department, sort data by employee surname ascending.

```
mysql> SELECT *
-> FROM EMPLOYEES
-> ORDER BY dept_num desc, surname asc;
```

num	surname	name	occupation	manager	begin_date	salary	commission	dept_num
7698	BRONSON	CHARLES	MANAGER	1000	1991-05-01	30050	NULL	30
7900	COLLINS	CLIFTON	EMPLOYEE	8001	1991-12-03	13350	NULL	30
7499	DERN	BRUCE	SALESMAN	7698	1990-02-20	15000	390	30
7844	DUNHAM	LENA	SALESMAN	7698	1991-09-08	13500	0	30
7654	HERRIMAN	DAMON	SALESMAN	7698	1991-09-29	16000	1020	30
7521	ROBINSON	SARAH	SALESMAN	7782	1991-02-22	16250	650	30
7566	DI CAPRIO	LEONARDO	MANAGER	1000	1991-04-02	29000	NULL	20
8001	FANNING	DAKOTA	MANAGER	1000	1992-06-10	28850	NULL	20
7788	MADISON	MIKEY	ANALYST	8000	1991-11-09	30000	NULL	20
1000	PITT	BRAD	OWNER	NULL	1984-01-01	104000	NULL	20
8000	QUALLEY	MARGARET	MANAGER	1000	1991-01-09	28850	NULL	20
7369	REDLEAF	JANE	EMPLOYEE	8001	1990-12-17	104000	NULL	20
7876	RITTEN	REBECCA	EMPLOYEE	7788	1991-09-23	14300	NULL	20
7902	ROWLING	KANSAS	ANALYST	8000	1991-12-03	30000	NULL	20
7934	HARRIS	DANIELLE	EMPLOYEE	8001	1992-01-23	16900	NULL	10
7782	ROBBIE	MARGOT	MANAGER	1000	1991-06-09	28850	NULL	10

16 rows in set (0.00 sec)

7. Show the data of the employees whose salary is greater than 20000.

```
mysql> SELECT *
-> FROM EMPLOYEES
-> WHERE SALARY > 20000;
```

num	surname	name	occupation	manager	begin_date	salary	commission	dept_num
1000	PITT	BRAD	OWNER	NULL	1984-01-01	104000	NULL	20
7369	REDLEAF	JANE	EMPLOYEE	8001	1990-12-17	104000	NULL	20
7566	DI CAPRIO	LEONARDO	MANAGER	1000	1991-04-02	29000	NULL	20
7698	BRONSON	CHARLES	MANAGER	1000	1991-05-01	30050	NULL	30
7782	ROBBIE	MARGOT	MANAGER	1000	1991-06-09	28850	NULL	10
7788	MADISON	MIKEY	ANALYST	8000	1991-11-09	30000	NULL	20
7902	ROWLING	KANSAS	ANALYST	8000	1991-12-03	30000	NULL	20
8000	QUALLEY	MARGARET	MANAGER	1000	1991-01-09	28850	NULL	20
8001	FANNING	DAKOTA	MANAGER	1000	1992-06-10	28850	NULL	20

9 rows in set (0.00 sec)

8. Show the data of the employees whose occupation is 'SALESMAN'.

```
mysql> SELECT *
-> FROM EMPLOYEES
-> WHERE occupation = 'SALESMAN';
```

num	surname	name	occupation	manager	begin_date	salary	commission	dept_num
7499	DERN	BRUCE	SALESMAN	7698	1990-02-20	15000	390	30
7521	ROBINSON	SARAH	SALESMAN	7782	1991-02-22	16250	650	30
7654	HERRIMAN	DAMON	SALESMAN	7698	1991-09-29	16000	1020	30
7844	DUNHAM	LENA	SALESMAN	7698	1991-09-08	13500	0	30

4 rows in set (0.00 sec)

9. Select the surname and occupation of the employees of department number 20.

```
mysql> SELECT surname, occupation
-> FROM EMPLOYEES
-> WHERE dept_num = 20;
```

surname	occupation
PITT	OWNER
REDLEAF	EMPLOYEE
DI CAPRIO	MANAGER
MADISON	ANALYST
RITTEN	EMPLOYEE
ROWLING	ANALYST
QUALLEY	MANAGER
FANNING	MANAGER

8 rows in set (0.00 sec)

10. Select employees whose occupation is 'SALESMAN'. Show data sorted by surname.

```
mysql> SELECT *
-> FROM EMPLOYEES
-> WHERE occupation = 'SALESMAN'
-> ORDER BY surname;
```

num	surname	name	occupation	manager	begin_date	salary	commission	dept_num
7499	DERN	BRUCE	SALESMAN	7698	1990-02-20	15000	390	30
7844	DUNHAM	LENA	SALESMAN	7698	1991-09-08	13500	0	30
7654	HERRIMAN	DAMON	SALESMAN	7698	1991-09-29	16000	1020	30
7521	ROBINSON	SARAH	SALESMAN	7782	1991-02-22	16250	650	30

4 rows in set (0.00 sec)

11. Show employees whose department is 20 or 30 and whose occupation is 'MANAGER'. Sort the result by dept_num descend and surname ascendent.

```
mysql> SELECT * FROM EMPLOYEES WHERE (dept_num = 20 or dept_num = 30) AND occupation='MANAGER' ORDER BY dept_num desc, surname asc;
```

num	surname	name	occupation	manager	begin_date	salary	commission	dept_num
7698	BRONSON	CHARLES	MANAGER	1000	1991-05-01	30050	NULL	30
7566	DI CAPRIO	LEONARDO	MANAGER	1000	1991-04-02	29000	NULL	20
8001	FANNING	DAKOTA	MANAGER	1000	1992-06-10	28850	NULL	20
8000	QUALLEY	MARGARET	MANAGER	1000	1991-01-09	28850	NULL	20

4 rows in set (0.00 sec)

12. Show employees who have a salary greater than 20000 or who belong to the department number 20.

```
mysql> SELECT * FROM EMPLOYEES WHERE salary > 20000 OR dept_num = 20;
```

num	surname	name	occupation	manager	begin_date	salary	commission	dept_num
1000	PITT	BRAD	OWNER	NULL	1984-01-01	104000	NULL	20
7369	REDLEAF	JANE	EMPLOYEE	8001	1990-12-17	104000	NULL	20
7566	DI CAPRIO	LEONARDO	MANAGER	1000	1991-04-02	29000	NULL	20
7698	BRONSON	CHARLES	MANAGER	1000	1991-05-01	30050	NULL	30
7782	ROBBIE	MARGOT	MANAGER	1000	1991-06-09	28850	NULL	10
7788	MADISON	MIKEY	ANALYST	8000	1991-11-09	30000	NULL	20
7876	RITTEN	REBECCA	EMPLOYEE	7788	1991-09-23	14300	NULL	20
7902	ROWLING	KANSAS	ANALYST	8000	1991-12-03	30000	NULL	20
8000	QUALLEY	MARGARET	MANAGER	1000	1991-01-09	28850	NULL	20
8001	FANNING	DAKOTA	MANAGER	1000	1992-06-10	28850	NULL	20

10 rows in set (0.00 sec)

13. Show employees sorted by their occupation and by their surname.

```
mysql> SELECT *
-> FROM EMPLOYEES
-> ORDER BY occupation, surname;
```

num	surname	name	occupation	manager	begin_date	salary	commission	dept_num
7788	MADISON	MIKEY	ANALYST	8000	1991-11-09	30000	NULL	20
7902	ROWLING	KANSAS	ANALYST	8000	1991-12-03	30000	NULL	20
7900	COLLINS	CLIFTON	EMPLOYEE	8001	1991-12-03	13350	NULL	30
7934	HARRIS	DANIELLE	EMPLOYEE	8001	1992-01-23	16900	NULL	10
7369	REDLEAF	JANE	EMPLOYEE	8001	1990-12-17	104000	NULL	20
7876	RITTEN	REBECCA	EMPLOYEE	7788	1991-09-23	14300	NULL	20
7698	BRONSON	CHARLES	MANAGER	1000	1991-05-01	30050	NULL	30
7566	DI CAPRIO	LEONARDO	MANAGER	1000	1991-04-02	29000	NULL	20
8001	FANNING	DAKOTA	MANAGER	1000	1992-06-10	28850	NULL	20
8000	QUALLEY	MARGARET	MANAGER	1000	1991-01-09	28850	NULL	20
7782	ROBBIE	MARGOT	MANAGER	1000	1991-06-09	28850	NULL	10
1000	PITT	BRAD	OWNER	NULL	1984-01-01	104000	NULL	20
7499	DERN	BRUCE	SALESMAN	7698	1990-02-20	15000	390	30
7844	DUNHAM	LENA	SALESMAN	7698	1991-09-08	13500	0	30
7654	HERRIMAN	DAMON	SALESMAN	7698	1991-09-29	16000	1020	30
7521	ROBINSON	SARAH	SALESMAN	7782	1991-02-22	16250	650	30

16 rows in set (0.00 sec)

14. Select employees from the EMPLOYEES table whose surname starts with 'S'.

```
mysql> SELECT * FROM EMPLOYEES WHERE surname like 'S%';
```

num	surname	name	occupation	manager	begin_date	salary	commission	dept_num
3445	SMITH	PEPE	NULL	NULL	NULL	NULL	NULL	NULL

1 row in set (0.00 sec)