

CIFP Francesc de Borja Moll - ASIX
Course: Database management
Unit: Introduction to SQL 2
Test

1.- [university] Find all departments where the total salary is greater than the average of the total salary at all departments.

```
+-----+
| dept_name |
+-----+
| Comp. Sci. |
| Finance    |
| Physics    |
+-----+
```

2.- [university] Delete all tuples in the instructor relation for those instructors associated with a department located in the Watson building.

3.- [university] Make each student in the Music department who has earned more than 144 credit hours an instructor in the Music department, with a salary of \$18,000

4.- [university] All instructors with salary over \$100,000 receive a 3 percent raise, whereas all others receive a 5 percent raise. Use a single update statement.

5.- [employees] Show the number employees of different occupations in each department.

```
+-----+-----+-----+
| Department | Occupation | Number_of_employees |
+-----+-----+-----+
| ACCOUNTING | EMPLOYEE   | 1 |
| ACCOUNTING | MANAGER    | 1 |
| RESEARCH   | ANALYST    | 2 |
| RESEARCH   | EMPLOYEE   | 2 |
| RESEARCH   | MANAGER    | 3 |
| SALES       | EMPLOYEE   | 1 |
| SALES       | MANAGER    | 1 |
| SALES       | SALESMAN   | 4 |
+-----+-----+-----+
```

6.- [employees] Display the maximum number of employees of all the departments.

```
+-----+
| max_number |
+-----+
|           7 |
```

+-----+

7.- [employees] Show the name and the average salary of the departments whose average salary is greater than the average of salaries of all employees.

```
+-----+
| name          | average_salary |
+-----+
| ACCOUNTING    | 2287.5000      |
| RESEARCH      | 2448.5714      |
+-----+
```

8.- [northwind] Show total cost of every order in May 1998 (also called "subtotal"). Clue: price*quantity*(1-discount)

```
+-----+-----+-----+
| OrderID | OrderDate          | subtotal |
+-----+-----+-----+
| 11064 | 1998-05-01 00:00:00 | 9208.4850 |
| 11065 | 1998-05-01 00:00:00 | 492.4920  |
| 11066 | 1998-05-01 00:00:00 | 1811.0625 |
| 11067 | 1998-05-04 00:00:00 | 169.3575  |
| 11068 | 1998-05-04 00:00:00 | 4650.3600 |
| 11069 | 1998-05-04 00:00:00 | 702.0000  |
| 11070 | 1998-05-05 00:00:00 | 3653.3250 |
| 11071 | 1998-05-05 00:00:00 | 994.5000  |
| 11072 | 1998-05-05 00:00:00 | 10175.1000 |
| 11073 | 1998-05-05 00:00:00 | 585.0000  |
| 11074 | 1998-05-06 00:00:00 | 476.3850  |
| 11075 | 1998-05-06 00:00:00 | 1142.7000 |
| 11076 | 1998-05-06 00:00:00 | 2061.1500 |
| 11077 | 1998-05-06 00:00:00 | 2417.4930 |
+-----+-----+-----+
```

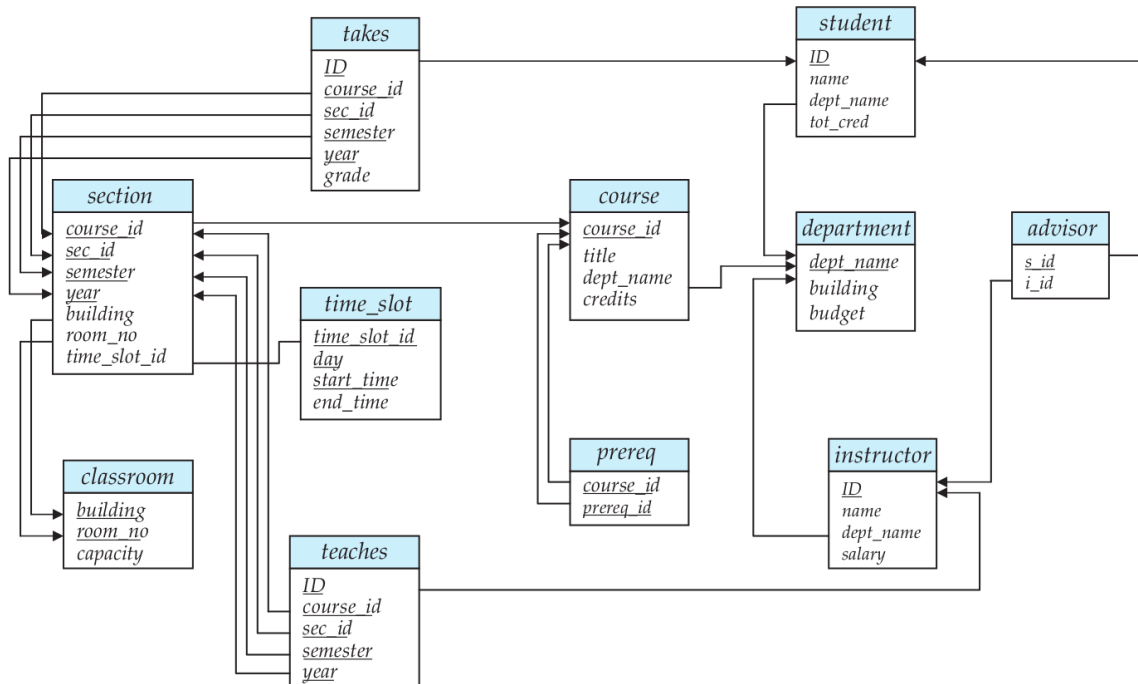
9.- [northwind] Show employee sales ordered by sales amount descendent.

```
+-----+-----+-----+-----+
| LastName | FirstName | EmployeeID | Subtotal |
+-----+-----+-----+-----+
| Peacock  | Margaret  | 4 | 487859.4435 |
| Leverling | Janet     | 3 | 415097.5140 |
| Davolio  | Nancy     | 1 | 393351.2700 |
| Fuller   | Andrew    | 2 | 346611.0570 |
| King     | Robert    | 7 | 275527.1805 |
| Callahan | Laura     | 8 | 258721.0860 |
| Dodsworth | Anne      | 9 | 161779.8000 |
```

Suyama	Michael		6	152248.7850	
Buchanan	Steven		5	147271.3125	
+-----+-----+-----+-----+					

10.- [northwind] Top 5 products with more units sold.

ProductName	Units	
+-----+-----+		
Camembert Pierrot	1577	
Raclette Courdavault	1496	
Gorgonzola Telino	1397	
Gnocchi di nonna Alice	1263	
Pavlova	1158	
+-----+-----+		



DEPARTMENTS:

num	name	town_code
10	ACCOUNTING	SVQ
20	RESEARCH	MAD
30	SALES	BCN
40	PRODUCTION	BIO

EMPLOYEES:

num	surname	name	manager	start_date	salary	commission	dept_num	occu_code
800	BANDERAS	ANTONIO	7839	1991-01-09	2885	NULL	20	MAN
7369	SÁNCHEZ	SERGIO	7902	1990-12-17	1040	NULL	20	EMP
7499	ARROYO	MARTA	7698	1990-02-20	1500	390	30	SAL
7521	SALA	RAUL	7698	1991-02-22	1625	650	30	SAL
7566	JIMÉNEZ	JUDIT	7839	1991-04-02	2900	NULL	20	MAN
7654	MARTÍN	MONICA	7698	1991-09-29	1600	1020	30	SAL
7698	NEGRO	BARTOLOME	7839	1991-05-01	3005	NULL	30	MAN
7782	CEREZO	ENRIQUE	7839	1991-06-09	2885	NULL	10	MAN
7788	GIL	JESUS	7566	1991-11-09	3000	NULL	20	ANA
7844	TOVAR	LUIS	7698	1991-09-08	1350	0	30	SAL
7876	ALONSO	FERNANDO	7788	1991-09-23	1430	NULL	20	EMP
7900	JIMENO	XAVIER	7698	1991-12-03	1335	NULL	30	EMP
7902	FERNÁNDEZ	ANA	7566	1991-12-03	3000	NULL	20	ANA
7934	MUÑOZ	ANTONIA	7782	1992-01-23	1690	NULL	10	EMP
8001	RUIZ	FERNANDA	7839	1992-06-10	2885	NULL	20	MAN

OCCUPATIONS:

code	name
ANA	ANALYST
EMP	EMPLOYEE
MAN	MANAGER
PRE	PRESIDENT
SAL	SALESMAN

TOWNS:

code	name
BCN	BARCELONA
BIO	BILBAO
MAD	MADRID
SVQ	SEVILLA

