KATARINA CEHOVSKI

ASSIGNMENT B

**Request 1**

List the last name, first name and employee number of all employees that have a last name starting with M.

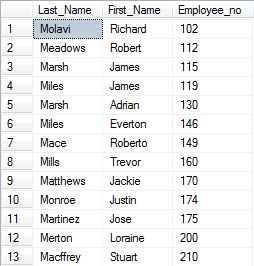
**Expected**

3 columns  
Last\_Name, First\_Name, Employee\_No  
Marsh, Adam, 125  
…

**Query**

SELECT Last\_Name, First\_Name, Employee\_no FROM Employees

WHERE Last\_Name LIKE 'M%'



**Request 2**

List the department number, last name, first name and phone number of all sales representatives who were hired on or after 24 Mar 1998 sorted in ascending order of last name.

**Expected**

4 columns  
Department\_No, Last\_Name, First\_Name, Phone\_Number  
40, Button, Joshua, 456 456 412  
…

**Query**

SELECT e.Department\_No, e.Last\_Name, e.First\_Name, e.Phone\_Number FROM Employees e

JOIN Jobs j ON e.Job\_ID= j.Job\_ID

WHERE j.Job\_Title = 'Sales Representative' AND Hire\_Date>= '1998-03-24'

ORDER BY Last\_Name ASC



**Request 3**

List all the data for all jobs where the minimum salary is less than or equal to 4500 sorted in descending order of the minimum salary.

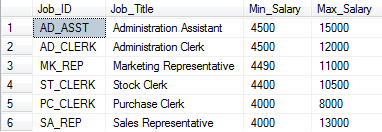
**Expected**

4 columns  
Job\_ID, Job\_Title, Min\_Salary, Max\_Salary  
IT\_SOFT\_DEV, Software Developer, 4500, 15000  
…

**Query**

SELECT \* FROM Jobs

WHERE Min\_Salary<= 4500 ORDER BY Min\_Salary DESC



**Request 4**

Which jobs are found in the Marketing and Accounting departments?

**Expected**

1 column  
Job\_Title  
Accountant  
…

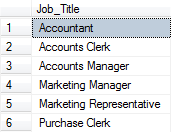
**Query**

SELECT DISTINCT j.Job\_Title FROM Jobs j

JOIN Employees e ON e.Job\_ID = j.Job\_ID

JOIN Departments d ON d.Department\_No = e.Department\_No

WHERE Department\_Name in ('Marketing', 'Accounting')



**Request 5**

List the department name, location, last name and salary of employees who work in location 1700 sorted in ascending order of department name.

**Expected**

4 columns  
Department\_Name, Location\_ID, Last\_Name, Annual\_Salary  
Finance, 1700, Rogers, 25000.00  
…

**Query**

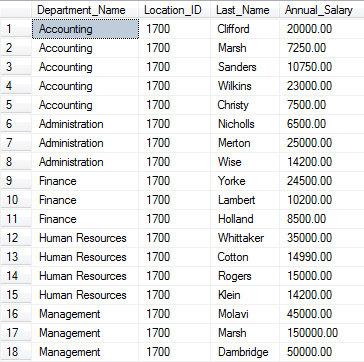
SELECT d.Department\_Name, d.Location\_ID, e.Last\_Name, e.Annual\_Salary

FROM Employees e

JOIN Departments d ON e.Department\_No= d.Department\_No

WHERE d.Location\_ID =1700

ORDER BY Department\_Name ASC



**Request 6**

List the last name and first name for all employees who were hired in the months of June or August (for all years) sorted in ascending order of last name.

**Expected**

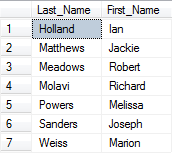
2 columns  
Last\_Name, First\_Name  
Cehovski, Katarina  
…

**Query**

SELECT Last\_Name, First\_Name FROM Employees

WHERE MONTH(Hire\_Date) = 6 OR MONTH(Hire\_Date) = 8

ORDER BY Last\_Name ASC



**Request 7**

Show the average salary for employees for one year (rounded to 2 decimal places).

**Expected**

1 column with number  
15464.15

**Query**

SELECT CAST(AVG(Annual\_Salary) AS DECIMAL (8,2)) AS Average\_Salary FROM Employees



**Request 8**

Show the total monthly salaries figure (0 decimal places) for all employees in departments 80 and 60.

**Expected**

1 column with number  
14523

**Query**

SELECT CAST(SUM(Annual\_Salary/12) as INT) AS Total\_Montly\_Salary FROM Employees

WHERE Department\_No IN (80, 60)



**Request 9**

List the department number, department name and the number of employees for each department that has less than 4 employees grouping by department number and department name.

**Expected**

3 columns  
Department\_No, Department\_Name, Number\_of\_Employees  
50, IT, 3  
…

**Query**

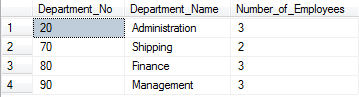
SELECT d.Department\_No, d.Department\_Name, COUNT(\*) AS Number\_of\_Employees

FROM Departments d JOIN Employees e

ON e.Department\_No= d.Department\_No

GROUP BY d.Department\_No, d.Department\_Name

HAVING COUNT(\*)< 4



**Request 10**

List the department number, department name and the number of employees for the department that has the lowest number of employees using appropriate grouping.

**Expected**

3 columns  
Department\_No, Department\_Name, Number\_of\_Employees  
60, Finance, 1

**Query**

SELECT TOP 1 d.Department\_No, d.Department\_Name, COUNT(\*) as Number\_of\_Employees

FROM Departments d JOIN Employees e

ON d.Department\_No = e.Department\_No

GROUP BY d.Department\_No, d.Department\_Name

ORDER BY Number\_of\_Employees ASC



**Request 11**

List the department number and name for all departments where no sales representatives work.

**Expected**

2 columns  
Department\_No, Department\_Name  
40, Administration  
…

**Query**

SELECT d.Department\_No, d.Department\_Name FROM Departments d

WHERE d.Department\_No NOT IN

(

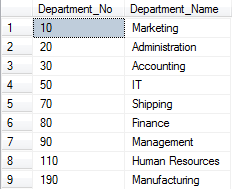
SELECT DISTINCT e.Department\_No FROM Employees e

JOIN Jobs j ON j.Job\_ID= e.Job\_ID

JOIN Departments d1 ON d1.Department\_No = e.Department\_No

AND j.Job\_Title = 'Sales Representative'

)



**Request 12**

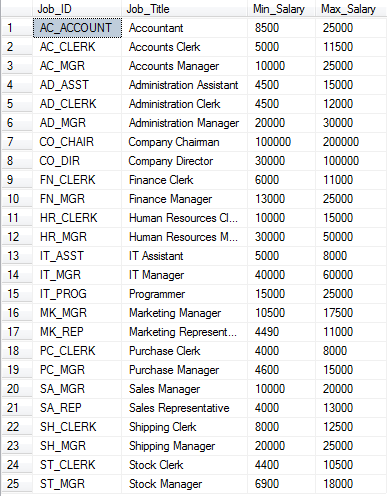
Add the following new job IT\_ASST, IT Assistant, 5000, 8000

**Expected**

New row will be added in table Jobs:  
Job\_ID, Job\_Title, Min\_Salary, Max\_Salary  
IT\_ASST, IT Assistant, 5000, 8000

**Query**

INSERT INTO Jobs VALUES ('IT\_ASST', 'IT Assistant', 5000, 8000)



**Request 13**

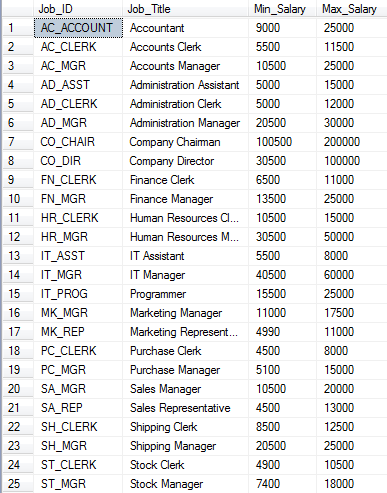
Update all the minimum salaries for jobs with an increase of 500.

**Expected**

4 columns  
column Min\_Salary -> Before: 5500, After: 6000

**Query**

UPDATE Jobs SET Min\_Salary+= 500



**Request 14**

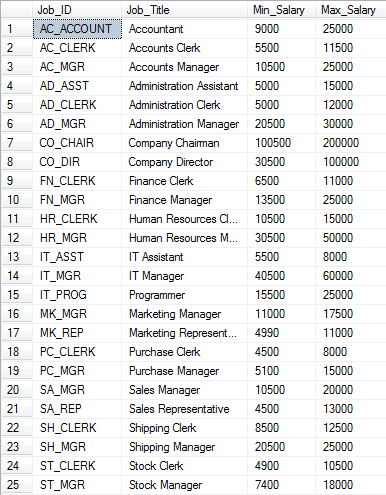
List all the data for jobs sorted in ascending order of job id.

**Expected**

4 columns  
Job\_ID, Job\_Title, Min\_Salary, Max\_Salary  
AC\_ACCOUNT, Accountant, 9000, 15000

**Query**

SELECT \* FROM Jobs ORDER BY Job\_ID ASC

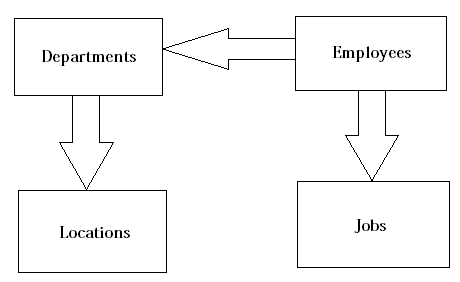


**Request 15**

The database administrator has found the following entity-relationship diagram. He thinks that the diagram is incorrect. Check the diagram and draw a corrected diagram.

**Expected**

Diagram with changed arrow, pointing from Departments to Locations.

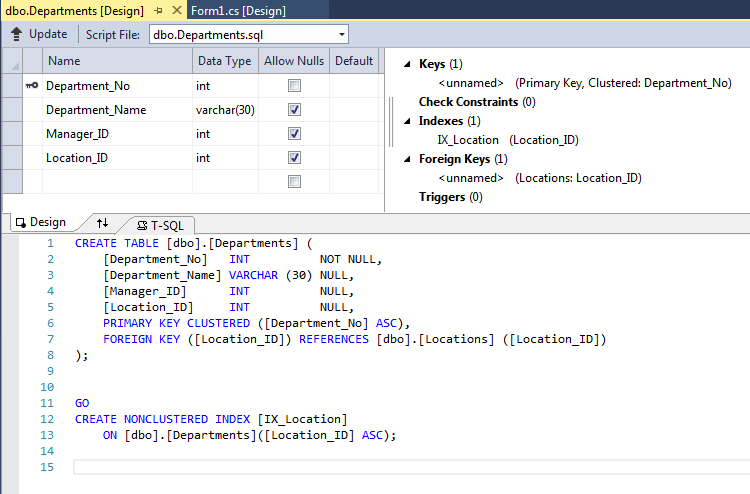
****

**Request 16**

Print a copy of the data dictionary entry for the table departments.

**Expected**

Data dictionary will be displayed.



**Request 17**

Drop the table for job history.

**Expected**

Table Job\_History will no longer exist.

**Query**

DROP TABLE Job\_History



**Request 18**

Create a new table called SAL\_HISTORY to include the fields EMPID, FIRSTNAME, LASTNAME, HIREDATE and SAL with the same data types as the employees table. The EMPID must not be NULL.

**Expected**

New table will be added. Table will have 5 columns: EMPID, FIRSTNAME, LASTNAME, HIREDATE, SAL.

**Query**

CREATE TABLE SAL\_HISTORY

(

EMPID INT NOT NULL,

FIRSTNAME VARCHAR (20),

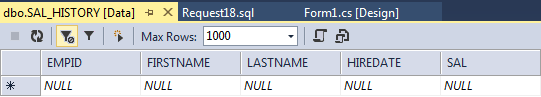
LASTNAME VARCHAR (25) NOT NULL,

HIREDATE DATETIME NOT NULL,

SAL DECIMAL (8, 2)

)





**Request 19**

Insert data from the employees table where the employee number is less than or equal to 130 into the SAL\_HISTORY table.

**Expected**

Data from table Employee table will be added in table SAL\_HISTORY.

**Query**

INSERT INTO SAL\_HISTORY

SELECT Employee\_No, First\_Name, Last\_Name, Hire\_Date,

Annual\_Salary FROM Employees WHERE Employee\_No<=130



**Request 20**

Display all the records and all the fields in the SAL\_HISTORY table.

**Expected**

4 columns  
EMPID, FIRSTNAME, LASTNAME, HIREDATE, SAL  
125, Katarina, Cehovski, 12/12/2012, 12000  
…

**Query**

SELECT \* FROM SAL\_HISTORY

