COMPANY DATABASE EXAMPLES – 3:

QC26) Find the sum of all salaries of all employees, the maximum salary, the minimum salary, and the average salary.

```
SELECT SUM (SALARY), MAX(SALARY), MIN(SALARY), AVG(SALARY)
FROM   EMPLOYEE;
```

QC27) Find the sum, max, min, average of salaries of all employees who work for 'RESEARCH' department.

```
SELECT  SUM(SALARY), MAX(SALARY), MIN(SALARY), AVG(SALARY)
FROM    EMPLOYEE, DEPARTMENT
WHERE   DNO=DNUMBER AND DNAME=' RESEARCH ';
```

QC28) Retrieve the total number of employees in the company.

```
SELECT COUNT(*)
FROM   EMPLOYEE;
```

QC29) Retrieve the total number of employees working for ' RESEARCH ' department.

```
SELECT COUNT(*)
FROM   EMPLOYEE, DEPARTMENT
WHERE  DNO=DNUMBER AND DNAME=' RESEARCH ';
```

QC30) Count the number of distinct salary values in the database.

```
SELECT COUNT (DISTINCT SALARY)
FROM   EMPLOYEE;
```

QC31) Retrieve the names of all employees who have two or more dependents.

```
SELECT LNAME, FNAME
FROM   EMPLOYEE
WHERE (SELECTCOUNT(*)
       FROM   DEPENDENT
       WHERE  SSN=ESSN )  >=  2;
```

QC32) For each department retrieve the department number, the number of employees in the department, their average salary.

```
SELECT  DNO, COUNT(*), AVG(SALARY)
FROM    EMPLOYEE
GROUP BY  DNO;
```

QC33) For each project retrieve the project number, project name, and the number of employees who are working on that project.

```
SELECT PNUMBER, PNAME, COUNT(*)
FROM   PROJECT, WORKS_ON
WHERE  PNUMBER=PNO
GROUP BY PNUMBER, PNAME;
```

QC34-A) For each project on which more than two employees work retrieve the project number, project name and number of employees who are working on that project.

```
SELECT  PNUMBER, PNAME, COUNT(*)
FROM    PROJECT, WORKS_ON
WHERE   PNUMBER=PNO
GROUP BY PNUMBER, PNAME
HAVING    COUNT(*) > 2;
```

QC34-B) For each project retrieve the project number, project name and number of employees who are working on that project if the average salaries of employees working on that project is greater than 1300.

```
SELECT  PNUMBER, PNAME, COUNT(*), ROUND(AVG(salary))
FROM    PROJECT, WORKS_ON, EMPLOYEE
WHERE   PNUMBER=PNO and SSN=ESSN
GROUP BY        PNUMBER, PNAME
HAVING          AVG(salary) >1300;
```

QC35) For each project retrieve the project number, project name, and number of employees from department 1 who are working on that project.

```
SELECT  PNUMBER, PNAME, COUNT(*)
FROM    PROJECT, WORKS_ON, EMPLOYEE
WHERE   PNUMBER=PNO AND SSN=ESSN AND DNO=1
GROUP BY PNUMBER, PNAME;
```

QC36) Find the employees and the projects that he work on, for those employees who earn more than $1200

```
SELECT  FNAME, LNAME, PNAME
FROM    WORKS_ON, EMPLOYEE, PROJECT
WHERE   SSN=ESSN AND SALARY >1200 AND PNO=PNUMBER;
```

QC36-A) For each department, find the total number of employees whose salaries exceed $1200 but only for departments where more than 1 employees work. .

```
SELECT  DNAME, COUNT(*)
FROM    DEPARTMENT, EMPLOYEE
WHERE   DNUMBER=DNO AND SALARY>1200 AND DNO IN      (SELECT DNO
                                                     FROM  EMPLOYEE
                                                     GROUP BY DNO
                                                     HAVING COUNT(*)>1)
GROUP BY        DNAME;
```

QC36-B) For each department, find the number of employees, for those departments where number of worker is more than 1 and at least one of them is earning more than $1200.

```
SELECT  DNAME, COUNT(*)
FROM    DEPARTMENT, EMPLOYEE
```

```
WHERE  DNUMBER=DNO AND
       DNO IN        (SELECT DNO
                      FROM   EMPLOYEE
                      WHERE SALARY > 1200)
GROUP BY     DNAME
HAVING       COUNT(*)  >  1 ;
```

QC36-C) For each department find the number of employees, if more than 1 employees' salaries are greater than $1200 in that department.

```
SELECT DNAME, COUNT(*)
FROM         DEPARTMENT, EMPLOYEE
WHERE        DNO = DNUMBER AND  (SELECT COUNT(*)
                                 FROM EMPLOYEE
                                 WHERE DNO=DNUMBER AND SALARY > 1200) >1
GROUP BY     DNAME;
```

QC36-D) For each department find the number of employees earning more than $1200, if this number is more than 1 in that department.

```
SELECT DNAME, COUNT(*)
FROM         DEPARTMENT, EMPLOYEE
WHERE        DNO=DNUMBER AND SALARY >1200
GROUP BY     DNAME
HAVING       COUNT(*) >1;
```

QC37) Find the names of employees whose salary is greater than all the salaries of the 'PRODUCT_X' project employees.

```
SELECT FNAME, LNAME, SALARY
FROM         EMPLOYEE
WHERE        SALARY > ALL (SELECT SALARY
                           FROM EMPLOYEE, PROJECT, WORKS_ON
                           WHERE PNAME = 'PRODUCT_X' AND PNO = PNUMBER
                            AND ESSN=SSN);
```