**ISEM 3006 Data Management in Business**

SQL 3 Select In-class Exercise

1. List the employee's number, name and the name of the department he or she belongs to for employees who have worked on at least one task. Remove any duplication.

SELECT DISTINCT E.EmpNo, Name, DName

FROM Employee E JOIN TaskAssignment TA

ON E.EmpNo = TA.EmpNo

JOIN Department D

ON E.EDnum = D.DNum;

2. For each task, list the task number, task name and the number of employees assigned to the task.

The following answer will work in PostgresSQL only, but not ORACLE.

As T.TNum is the Primary Key of Task table, that is why you can project TName without including it in the Group By clause in PostgresSQL.

SELECT T.tnum, T.tname, COUNT(\*)

FROM task T JOIN taskassignment TA

ON T.tnum = TA.tnum

GROUP BY T.tnum;

The following answer will work in both PostgresSQL and Oracle

SELECT T.tnum, T.tname, COUNT(\*)

FROM task T JOIN taskassignment TA

ON T.tnum = TA.tnum

GROUP BY T.tnum, T.tname;

3. List the full detail of the employees who are not assigned to any task.

SELECT E.\*

FROM employee E LEFT OUTER JOIN taskassignment TA

ON E.empno = TA.empno

WHERE TA.tnum IS NULL ;

4. List the department number and name of the departments which have managed the task with TNUM = 10 and TNUM = 30.

SELECT D.DNum, D.DName

FROM Department D JOIN Task T

ON D.DNum = T.TDNum

WHERE T.tnum = 10

INTERSECT

SELECT D.DNum, D.DName

FROM Department D JOIN Task T

ON D.DNum = T.TDNum

WHERE T.tnum = 30;

5. List the employees’ name and salary of the employees who have the highest salary.

SELECT name, salary

FROM employee

WHERE salary >= all (SELECT salary FROM employee);

Another solution:

SELECT E.Name, E.Salary

FROM employee E

WHERE E.Salary = (SELECT max(salary)

FROM employee);