RDBMS - Assignment 2

JOINS

1. **Write a query for the HR department to produce the addresses of all the departments. Use the LOCATIONS and COUNTRIES tables. Show the location ID, street address, city, state or province, and country in the output. Use a NATURAL JOIN to produce the results.**

   - SQL> SELECT location_id, street_address, city, state_province, country_name
     2 FROM locations
     3 NATURAL JOIN countries;

     23 rows selected.

2. **The HR department needs a report of only those employees with corresponding departments. Write a query to display the last name, department number, and department name for these employees.**

   - SQL> select e.last_name,d.department_id,d.department_name from employees e, departments d where e.department_id = d.department_id;

     106 rows selected.

3. **The HR department needs a report of employees in Toronto. Display the last name, job, department number, and the department name for all employees who work in Toronto.**

   - SQL> select LAST_NAME,JOB_ID,DEPARTMENT_NAME,DEPARTMENT_ID FROM EMPLOYEES
     2 JOIN DEPARTMENTS USING(DEPARTMENT_ID)
     3 JOIN LOCATIONS USING(LOCATION_ID)
     4 where LOCATIONS.CITY in ('Toronto');

     2 rows selected.

4. **Create a report to display employees' last name and employee number along with their manager's last name and manager number. Label the columns Employee, Emp#, Manager, and Mgr#, respectively.**

- SQL> SELECT e.last_name "Employee", e.employee_id "EMP#",m.last_name "Manager", m.employee_id "Mgr#"
  2 FROM employees e join employees m
  3 ON (e.manager_id = m.employee_id);

  106 rows selected.

Sub Queries

5. **Find the department names which do not have any employees working in them.**

- SQL> SELECT * FROM departments
  2 WHERE department_id
  3 NOT IN (select department_id FROM employees);

  no rows selected.

OR

- SQL> SELECT department_name,department_id from departments where department_id not in (select department_id from employees);

  no rows selected.

6. **Find the last_name, salary, job_id, department_id of all employees who work in the same department and doing the same job as that of 'Russell'('Russell' is the last_name)-Single row multi column subquery**

- SQL> select last_name,salary,job_id,department_id from employees where department_id
  2 = (select department_id from employees
  3 where last_name ='Russell') and job_id =(select job_id from employees where last_name =
  4 'Russell');

  5 rows selected.

7. Find the names of employees who are not managers.

- SQL> select employee_id ,first_name,last_name,job_id from employees
  2 where employee_id not in (select manager_id from employees where manager_id IS NOT NULL);

  89 rows selected.

8. Retrive the last_name, first_name of all employees who earn more than the min salary of employees working in Executive department.

- SQL> select first_name,last_name,salary from employees where department_id in (select
  2 department_id from departments
  3 where department_name = 'Executive') and salary>(select min(salary) from employees);

  3 rows selected

Set Operated Queries

9. List all Departments(department_names) in which no employee works.

- SQL> select department_name from departments minus (select department_name from departments 2 where department_id in (select distinct department_id from employees where department_id is not null));

  16 rows selected.

10. List all Employee_id and first_name of those who have changed their jobs more than once.

- SQL> select employee_id,first_name,last_name from employees where employee_id in(select employee_id from job_history group by employee_id having count
  2 (employee_id)>=1);

  7 rows selected.