**SELECT : JOINS**

1. Write a query to display the last name, department number, and department name for all employees.

**ANS - select employees.last\_name , employees.department\_id , departments.department\_name from employees INNER join departments on employees.department\_id=departments.department\_id;**

2. Create a unique listing of all jobs that are in department 80. Include the location of the department in the output.

**Ans- select distinct employees.job\_id , departments.location\_id ,locations.street\_address, locations.city from employees inner join departments on employees.department\_id = departments.department\_id inner join locations on departments.location\_id = locations.location\_id where employees.department\_id=80;**

3. Write a query to display the employee last name, department name, location ID, and city of all employees who earn a commission.

**Ans- select e.last\_name, d.department\_name, d.location\_id, l.city from employees e, departments d, locations l where e.department\_id = d.department\_id and d.location\_id = l.location\_id and e.commission\_pct is not null;**

4. Display the employee last name and department name for all employees who have an *a* (lowercase) in their last names. Place your SQL statement in a text file named lab4\_4.sql.

**ANS - select last\_name, department\_name from employees, departments where employees.department\_id = departments.department\_id and last\_name like ’%a%’;**

5.Write a query to display the last name, job, department number, and department name for all  
employees who work in Toronto.

**ANS - select e.last\_name, e.job\_id, e.department\_id,d.department\_name from employees e join departments d on (e.department\_id = d.department\_id) join locations l on (d.location\_id = l.location\_id) where lower(l.city) = ’toronto’;**

6.Display the employee last name and employee number along with their manager’s last name and manager number. Label the columns Employee, Emp#, Manager, and Mgr#, respectively. Place your SQL statement in a text file named lab4\_6.sql.

**ANS - select w.last\_name "employee", w.employee\_id "emp#", m.last\_name "manager", m.employee\_id "mgr#" from employees w join employees m on (w.manager\_id = m.employee\_id);**

7.Modify lab4\_6.sql to display all employees including King, who has no manager.  
Place your SQL statement in a text file named lab4\_7.sql. Run the query in lab4\_7.sql

**ANS - select w.last\_name "employee", w.employee\_id "emp#", m.last\_name "manager", m.employee\_id "mgr#" from employees w left outer join employees m on (w.manager\_id <> m.employee\_id);**

If you have time, complete the following exercises.

8.Create a query that displays employee last names, department numbers, and all the  
employees who work in the same department as a given employee. Give each column an appropriate label.

**ANS - select e.department\_id departments , e.last\_name employees , c.last\_name colleague from employees e join employees c on (e.department\_id = c.department\_id)where e.employee\_id <> c.employee\_id order by e.department\_id, e.last\_name, c.last\_name;**

9.Show the structure of the JOB\_GRADES table. Create a query that displays the name, job,  
department name, salary, and grade for all employees.

**ANS - select e.last\_name , e.job\_id, d.department\_name,e.salary, j.grade\_level from employees e join departments d on (e.department\_id = d.department\_id) join job\_grades j on (e.salary between j.lowest\_sal and j.highest\_sal);**

**If you want an extra challenge, complete the following exercises:**

**10.Create a query to display the name and hire date of any employee hired after employee Davies.**

**ANS - select e.last\_name, e.hire\_date from employees e join employees d on (d.last\_name = ’davies’) where d.hire\_date < e.hire\_date;**

**11. Display the names and hire dates for all employees who were hired before their managers, along with their manager’s names and hire dates. Label the columns Employee, Emp  
 Hired, Manager, and Mgr Hired, respectively.**

**ANS - select w.last\_name, w.hire\_date, m.last\_name, m.hire\_date from employees w join employees m on (w.manager\_id = m.employee\_id) where w.hire\_date < m.hire\_date;**