

## LAB SHEET - 2

**1. Write a SQL query to find the first name, last name, department number, and department name for each employee.**

```
SELECT e.first_name,e.last_name,e.department_id,d.department_name FROM employees e  
INNER JOIN departments d ON e.department_id = d.department_id;
```

**2. write a SQL query to find the first name, last name, department, for each employee**

```
SELECT e.first_name,e.last_name,d.department_name FROM employees e INNER JOIN  
departments d ON e.department_id = d.department_id
```

**3. write a SQL query to find the first name, last name, salary, and job grade for all employees**

```
SELECT e.first_name,e.last_name,e.salary FROM employees e
```

**4. Write a SQL query to find all those employees who work in department ID 80 or 40. Return first name, last name, department number and department name.**

```
SELECT e.first_name,e.last_name,d.department_id,d.department_name FROM employees e  
INNER JOIN departments d ON e.department_id = d.department_id AND d.department_id IN  
(80, 40) ORDER BY e.last_name;
```

**5. Write a SQL query to find those employees whose first name contains the letter 'z'. Return first name, last name, department\_name**

```
SELECT e.first_name,e.last_name,d.department_name FROM employees e INNER JOIN departments d ON e.department_id = d.department_id WHERE e.first_name LIKE '%z%';
```

**6. write a SQL query to find all departments, including those without employees. Return first name, last name, department ID, department name**

```
SELECT e.first_name,e.last_name,d.department_id,d.department_name FROM departments d LEFT JOIN employees e ON d.department_id = e.department_id;
```

**7. write a SQL query to find the employees who earn less than the employee of ID 182. Return first name, last name and salary.**

```
SELECT e1.first_name,e1.last_name,e1.salary FROM employees e1 INNER JOIN employees e2 ON e1.salary < e2.salary AND e2.employee_id = 182;
```

**8. write a SQL query to find the employees and their managers. These managers do not work under any manager. Return the first name of the employee and manager.**

```
SELECT e1.first_name AS "employee_name",e2.first_name AS "manager_name" FROM employees e1 INNER JOIN employees e2 ON e1.manager_id = e2.employee_id;
```

**9. write a SQL query to calculate the difference between the maximum salary of the job and the employee's salary. Return job title, employee name, and salary difference**

```
SELECT first_name||' '||last_name AS employee_name,salary as salary_difference FROM employees;
```

**10. write a SQL query to calculate the average salary, the number of employees receiving commissions in that department. Return department name, average salary and number of employees.**

```
SELECT d.department_name,AVG(salary),COUNT(commission_pct) FROM departments JOIN employees USING (department_id) GROUP BY department_name;
```