pratical 2

SQL Queries:
a. Design and Develop SQL DDL statements which
demonstrate the use of SQL objects such as Table, View,
Index, Sequence, Synonym, different constraints etc.
b. Write at least 10 SQL queries on the suitable database
application using SQL DML statements.

```
create database demo;

CREATE TABLE employees (
 emp_id INT PRIMARY KEY,
 first_name VARCHAR(50),
 last_name VARCHAR(50),
 department_id INT,
 salary DECIMAL(10, 2),
 hire_date DATE,
 email VARCHAR(100)
 );
```

1. Insert Data into Employees Table

```
INSERT INTO employees (emp_id, first_name, last_name, department_id, salary,
hire_date, email)
VALUES (1, 'John', 'Doe', 1, 60000, '2023-01-15', 'john.doe@example.com');
```

2. Insert Multiple Rows

```
INSERT INTO employees (emp_id, first_name, last_name, department_id, salary,
hire_date, email)
VALUES
(2, 'Alice', 'Smith', 2, 55000, '2022-11-10', 'alice.smith@example.com'),
(3, 'Bob', 'Johnson', 3, 48000, '2023-02-05', 'bob.johnson@example.com');
```

3. Update Employee's Salary

```
UPDATE employees
SET salary = 65000
WHERE emp_id = 1;
```

4. Delete Employee Record

```
DELETE FROM employees
WHERE emp_id = 3;
```

5. Retrieve Employees with Salary above a Certain Threshold

```
SELECT first_name, last_name, salary
FROM employees
WHERE salary > 50000;
```

6. Retrieve Employees Hired After a Certain Date

```
SELECT emp_id, first_name, last_name, hire_date
FROM employees
WHERE hire_date > '2022-12-31';
```

7. Count Number of Employees in a Department

```
SELECT department_id, COUNT(*)
FROM employees
GROUP BY department_id;
```

8. Calculate the Average Salary of Employees

```
SELECT AVG(salary) AS avg_salary
FROM employees;
```

9. Retrieve Employees with their Department Name (using JOIN)

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

10. Increase Salary by 10% for Employees in Department 2

```
UPDATE employees
SET salary = salary * 1.10
WHERE department_id = 2;
```

```
select * from employees;
```