

Task 7: Creating Views

---1. Customer Table Creation and Insertion of Data--

```
CREATE TABLE `customer` (
    `customer_id` int(11) primary key auto_increment NOT NULL,
    `name` varchar(50) NOT NULL,
    `email` varchar(100) NOT NULL,
    `phone` varchar(20) NOT NULL,
    `address` text NOT NULL,
    `pincode` varchar(11) NOT NULL,
    `salary` int NOT NULL,
    `city` varchar(50) NOT NULL
);

INSERT INTO customer (customer_id, name, email, phone, address, pincode, salary, city)
VALUES

(NULL,'John Peterson','john.peterson@example.com','+932025550147','1407 Oak Street','20001',35000,'Mumbai'),

(NULL,'Emma Johansson','emma.johansson@example.se','+46 709123456','Vasagatan 12','11120',38000,'Delhi'),

(NULL,'Liam McCarthy','liam.mccarthy@example.ie','+35 3851234567','32 O'Connell St','90901',52000,'Delhi'),

(NULL,'Sofia Rossi','sofia.rossi@example.it','+39 347890122','Via Roma 55, Milan, Italy','20121',30000,'Bangalore');
```

Query #1 Execution time: 0.34ms							
customer_id	name	email	phone	address	pincode	salary	city
1	John Peterson	john.peterson@example.com	+932025550147	1407 Oak Street	20001	35000	Mumbai
2	Emma Johansson	emma.johansson@example.se	+46 709123456	Vasagatan 12	11120	38000	Delhi
3	Liam McCarthy	liam.mccarthy@example.ie	+35 3851234567	32 O'Connell St	90901	52000	Delhi
4	Sofia Rossi	sofia.rossi@example.it	+39 347890122	Via Roma 55, Milan, Italy	20121	30000	Bangalore

---2.Order Table Creation and Insertion of Data--

```
CREATE TABLE `orders` (
```

```

`order_id` int(11) NOT NULL PRIMARY KEY AUTO_INCREMENT,
`customer_id` int(11) DEFAULT NULL,
`order_date` datetime DEFAULT current_timestamp(),
`total_amount` decimal(10,2) DEFAULT NULL
);

```

```

INSERT INTO orders
(order_id, customer_id, order_date, total_amount)
VALUES
(101, 1, NOW(), 35000.45),
(NULL, 3, NOW(), 23400.00),
(NULL, 3, NOW(), 73400.98),
(NULL, 2, NOW(), 11234.56),
(NULL, 1, NOW(), 98230.00);

```

Query #2 Execution time: 0.17ms

order_id	customer_id	order_date	total_amount
101	1	2025-11-24 07:01:37	35000.45
102	3	2025-11-24 07:01:37	23400.00
103	3	2025-11-24 07:01:37	73400.98
104	2	2025-11-24 07:01:37	11234.56
105	1	2025-11-24 07:01:37	98230.00

---3. Create Simple View (Customer basic info)

```
CREATE VIEW customer_basic AS
```

```

SELECT customer_id, name, city, salary
FROM customer;

```

Query #4 Execution time: 0.2ms

customer_id	name	city	salary
1	John Peterson	Mumbai	35000
2	Emma Johansson	Delhi	38000
3	Liam McCarthy	Delhi	52000
4	Sofia Rossi	Bangalore	30000

---4.Update data in view

```
UPDATE customer_basic
```

```
SET salary = 40000
```

```
WHERE customer_id = 1;
```

```
SELECT * FROM customer_basic;
```

Query #6 Execution time: 0.08ms

customer_id	name	city	salary
1	John Peterson	Mumbai	40000
2	Emma Johansson	Delhi	38000
3	Liam McCarthy	Delhi	52000
4	Sofia Rossi	Bangalore	30000

---5. View with Complex SELECT (High Salary Customers)

```
CREATE VIEW high_salary_customers AS
```

```
SELECT name, city, salary
```

```
FROM customer
```

```
WHERE salary > (SELECT AVG(salary) FROM customer);
```

```
SELECT * FROM high_salary_customers;
```

Query #8 Execution time: 0.24ms

name	city	salary
Liam McCarthy	Delhi	52000

---6. Creating a VIEW using JOIN

```
CREATE VIEW customer_order_view AS
```

```
SELECT
```

```
    c.customer_id,
```

```
    c.name,
```

```
    c.city,
```

```
    o.order_id,
```

```
    o.total_amount,
```

```
    o.order_date
```

```
FROM customer c
```

```
INNER JOIN orders o
```

```
ON c.customer_id = o.customer_id;  
  
SELECT * FROM customer_order_view;
```

Query #10 Execution time: 0.26ms

customer_id	name	city	order_id	total_amount	order_date
1	John Peterson	Mumbai	101	35000.45	2025-11-24 07:01:37
3	Liam McCarthy	Delhi	102	23400.00	2025-11-24 07:01:37
3	Liam McCarthy	Delhi	103	73400.98	2025-11-24 07:01:37
2	Emma Johansson	Delhi	104	11234.56	2025-11-24 07:01:37
1	John Peterson	Mumbai	105	98230.00	2025-11-24 07:01:37