

## WEEK 2 - SESSION 6

ERROR 1046 (3D000): No database selected

```
mysql> USE CollegeDB;
```

Database changed

```
mysql> CREATE TABLE Driver (
```

```
-> driver_id INT PRIMARY KEY,
```

```
-> name VARCHAR(50),
```

```
-> otp INT
```

```
-> );
```

Query OK, 0 rows affected (0.04 sec)

```
mysql> DELIMITER //
```

```
mysql>
```

```
mysql> CREATE TRIGGER before_driver_insert
```

```
-> BEFORE INSERT ON Driver
```

```
-> FOR EACH ROW
```

```
-> BEGIN
```

```
-> IF NEW.otp < 1000 OR NEW.otp > 9999 THEN
```

```
->     SIGNAL SQLSTATE '45000'
```

```
->     SET MESSAGE_TEXT = 'Invalid OTP! Must be 4 digits.';
```

```
-> END IF;
```

```
-> END //
```

Query OK, 0 rows affected (0.01 sec)

```
mysql>
```

```
mysql> DELIMITER ;
```

```
mysql> INSERT INTO Driver VALUES (1, 'Ramesh', 1234);
```

Query OK, 1 row affected (0.01 sec)

```
mysql> CREATE TABLE Orders (
```

```
-> order_id INT PRIMARY KEY,
```

```
-> customer_name VARCHAR(50),
```

```
-> total_amount DECIMAL(10,2) DEFAULT 0
```

```
-> );
```

Query OK, 0 rows affected (0.03 sec)

```
mysql>
```

```
mysql> CREATE TABLE Order_Items (
```

```
-> item_id INT PRIMARY KEY,
```

```
-> order_id INT,
```

```
-> dish_name VARCHAR(50),
```

```
-> price DECIMAL(10,2),
```

```
-> FOREIGN KEY (order_id) REFERENCES Orders(order_id)
```

```
-> );
```

Query OK, 0 rows affected (0.06 sec)

```
mysql> DELIMITER //
```

```
mysql>
```

```
mysql> CREATE TRIGGER after_order_item_insert
```

```
-> AFTER INSERT ON Order_Items
```

```
-> FOR EACH ROW
```

```
-> BEGIN
```

```
-> UPDATE Orders
```

```
-> SET total_amount = total_amount + NEW.price
```

```
-> WHERE order_id = NEW.order_id;
```

```
-> END //
```

Query OK, 0 rows affected (0.01 sec)

```
mysql>
```

```
mysql> DELIMITER ;
mysql> INSERT INTO Orders VALUES (101, 'Arjun', 0);
Query OK, 1 row affected (0.00 sec)
```

```
mysql>
mysql> INSERT INTO Order_Items VALUES (1, 101, 'Pizza', 250);
Query OK, 1 row affected (0.01 sec)
```

```
mysql> INSERT INTO Order_Items VALUES (2, 101, 'Burger', 150);
Query OK, 1 row affected (0.01 sec)
```

```
mysql> SELECT * FROM Orders;
+-----+-----+-----+
| order_id | customer_name | total_amount |
+-----+-----+-----+
| 101 | Arjun | 400.00 |
+-----+-----+-----+
1 row in set (0.00 sec)
```

```
mysql> CREATE TABLE Employees (
-> emp_id INT PRIMARY KEY,
-> name VARCHAR(50),
-> salary DECIMAL(10,2),
-> created_at TIMESTAMP
-> );
Query OK, 0 rows affected (0.03 sec)
```

```
mysql> DELIMITER //
mysql>
mysql> CREATE TRIGGER before_employee_insert
-> BEFORE INSERT ON Employees
-> FOR EACH ROW
-> BEGIN
-> SET NEW.created_at = NOW();
-> END //
Query OK, 0 rows affected (0.01 sec)
```

```
mysql>
mysql> DELIMITER ;
mysql> INSERT INTO Employees VALUES (1, 'Rahul', 25000, NULL);
Query OK, 1 row affected (0.01 sec)
```

```
mysql> SELECT * FROM Employees;
+-----+-----+-----+-----+
| emp_id | name | salary | created_at |
+-----+-----+-----+-----+
| 1 | Rahul | 25000.00 | 2026-02-10 14:35:10 |
+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

```
mysql> DELIMITER //
mysql>
mysql> CREATE TRIGGER prevent_negative_salary
-> BEFORE INSERT ON Employees
-> FOR EACH ROW
-> BEGIN
-> IF NEW.salary < 0 THEN
-> SIGNAL SQLSTATE '45000'
-> SET MESSAGE_TEXT = 'Salary cannot be negative';
-> END IF;
```

-> END //

Query OK, 0 rows affected (0.02 sec)

mysql>

mysql> DELIMITER ;

mysql> INSERT INTO Employees VALUES (2, 'Kiran', -5000, NULL);

ERROR 1644 (45000): Salary cannot be negative

mysql> CREATE TABLE Employee\_Audit (

-> audit\_id INT AUTO\_INCREMENT PRIMARY KEY,

-> emp\_id INT,

-> old\_name VARCHAR(50),

-> old\_salary DECIMAL(10,2),

-> updated\_at TIMESTAMP DEFAULT CURRENT\_TIMESTAMP

-> );

Query OK, 0 rows affected (0.03 sec)

mysql> DELIMITER //

mysql>

mysql> CREATE TRIGGER employee\_update\_audit

-> BEFORE UPDATE ON Employees

-> FOR EACH ROW

-> BEGIN

-> INSERT INTO Employee\_Audit(emp\_id, old\_name, old\_salary)

-> VALUES (OLD.emp\_id, OLD.name, OLD.salary);

-> END //

Query OK, 0 rows affected (0.01 sec)

mysql>

mysql> DELIMITER ;

mysql> UPDATE Employees

-> SET salary = 30000

-> WHERE emp\_id = 1;

Query OK, 1 row affected (0.02 sec)

Rows matched: 1 Changed: 1 Warnings: 0

mysql> SELECT \* FROM Employee\_Audit;

audit_id	emp_id	old_name	old_salary	updated_at
1	1	Rahul	25000.00	2026-02-10 14:36:15

1 row in set (0.00 sec)

mysql>