

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>
```