

WEEK 2 - SESSION 10 :

```
mysql> DELIMITER //
mysql>
mysql> CREATE FUNCTION calculate_net_salary(gross_salary DECIMAL(10,2))
-> RETURNS DECIMAL(10,2)
-> DETERMINISTIC
-> BEGIN
->   RETURN gross_salary - (gross_salary * 0.10);
-> END //
Query OK, 0 rows affected (0.01 sec)
```

```
mysql>
mysql> DELIMITER ;
mysql> SELECT calculate_net_salary(50000) AS net_salary;
+-----+
| net_salary |
+-----+
| 45000.00 |
+-----+
1 row in set (0.01 sec)
```

```
mysql> DELIMITER //
mysql>
mysql> CREATE FUNCTION check_user_activity(last_login DATE)
-> RETURNS VARCHAR(20)
-> DETERMINISTIC
-> BEGIN
->   IF DATEDIFF(CURDATE(), last_login) <= 30 THEN
->     RETURN 'Active';
->   ELSE
->     RETURN 'Inactive';
->   END IF;
-> END //
Query OK, 0 rows affected (0.02 sec)
```

```
mysql>
mysql> DELIMITER ;
mysql> SELECT check_user_activity('2026-01-20') AS status;
+-----+
| status |
+-----+
| Active |
+-----+
1 row in set (0.00 sec)
```

```
mysql> DELIMITER //
mysql>
mysql> CREATE FUNCTION calculate_tax(salary DECIMAL(12,2))
-> RETURNS DECIMAL(12,2)
-> DETERMINISTIC
-> BEGIN
->   DECLARE tax DECIMAL(12,2);
->
->   IF salary <= 300000 THEN
->     SET tax = 0;
->   ELSEIF salary <= 600000 THEN
->     SET tax = salary * 0.10;
->   ELSEIF salary <= 1000000 THEN
```

```
->      SET tax = salary * 0.20;
->      ELSE
->          SET tax = salary * 0.30;
->      END IF;
->
->      RETURN tax;
-> END //
```

Query OK, 0 rows affected (0.01 sec)

```
mysql>
mysql> DELIMITER ;
mysql> SELECT calculate_tax(750000) AS tax_amount;
+-----+
| tax_amount |
+-----+
| 150000.00 |
+-----+
1 row in set (0.00 sec)
```

```
mysql> DELIMITER //
mysql>
mysql> CREATE FUNCTION employee_category(years INT)
-> RETURNS VARCHAR(20)
-> DETERMINISTIC
-> BEGIN
->     IF years < 2 THEN
->         RETURN 'Fresher';
->     ELSEIF years BETWEEN 2 AND 5 THEN
->         RETURN 'Junior';
->     ELSEIF years BETWEEN 6 AND 10 THEN
->         RETURN 'Mid';
->     ELSE
->         RETURN 'Senior';
->     END IF;
-> END //
```

Query OK, 0 rows affected (0.02 sec)

```
mysql>
mysql> DELIMITER ;
mysql> SELECT employee_category(7) AS category;
+-----+
| category |
+-----+
| Mid      |
+-----+
1 row in set (0.00 sec)
```

```
mysql> DELIMITER //
mysql>
mysql> CREATE FUNCTION calculate_late_fee(due_date DATE, return_date DATE)
-> RETURNS INT
-> DETERMINISTIC
-> BEGIN
->     DECLARE days_late INT;
->     DECLARE fine INT;
->
->     SET days_late = DATEDIFF(return_date, due_date);
->
->     IF days_late <= 0 THEN
->         SET fine = 0;
```

```
-> ELSE
->     SET fine = days_late * 50;
->
->     IF fine > 1000 THEN
->         SET fine = 1000;
->     END IF;
-> END IF;
->
-> RETURN fine;
-> END //
```

Query OK, 0 rows affected (0.12 sec)

```
mysql>
mysql> DELIMITER ;
mysql> SELECT calculate_late_fee('2026-01-01', '2026-01-25') AS late_fee;
+-----+
| late_fee |
+-----+
|    1000 |
+-----+
1 row in set (0.00 sec)
```