

# Stored Procedure

```
MariaDB [Avni]> delimiter //  
MariaDB [Avni]> create procedure sp_get() begin select * from employee; end //  
Query OK, 0 rows affected (0.002 sec)
```

```
MariaDB [Avni]> delimiter ;  
MariaDB [Avni]> call sp_get();
```

```
+-----+-----+-----+-----+-----+  
| emp_id | emp_firstname | emp_lastname | emp_email          | emp_contact |  
+-----+-----+-----+-----+-----+  
| 1 | Avni      | Sangani     | avani@gmail.com    | 9265569595 |  
| 2 | Anjani    | Patel       | anjani@gmail.com   | 9265569585 |  
| 3 | Shriya    | Patel       | shriya@gmail.com   | 8264569595 |  
| 4 | Riya      | Kansagra    | riya@gmail.com     | 9965569580 |  
| 5 | Shreyanshi | Vekariya    | shreyanshi@gmail.com | 7265569085 |  
| 6 | Kajal     | Panchal     | kajal@gmail.com    | 8264789595 |  
| 7 | Piyush    | Patel       | piyush@gmail.com   | 8265560585 |  
| 8 | Vishv     | Sangani     | vishv@gmail.com    | 9965589580 |  
| 9 | Vrinda    | Usadadiya   | vrinda@gmail.com   | 7265569795 |  
| 10 | Khyati    | Dadhaniya   | khyati@gmail.com   | 8264569597 |  
+-----+-----+-----+-----+-----+  
10 rows in set (0.001 sec)
```

```
Query OK, 0 rows affected (0.001 sec)
```

## ==>Function:-

```
MariaDB [Avni]> delimiter $$  
MariaDB [Avni]> create function daily_wages(wage decimal(10,2))  
-> returns decimal(10,2)  
-> deterministic  
-> begin  
-> declare daily_wage decimal(10,2);  
-> set daily_wage = wage * 8;  
-> return (daily_wage);  
-> end $$
```

```
Query OK, 0 rows affected (0.003 sec)
```

```
MariaDB [Avni]> delimiter ;  
MariaDB [Avni]> select daily_wages(50);
```

```
+-----+  
| daily_wages(50) |  
+-----+  
| 400.00 |  
+-----+  
1 row in set (0.001 sec)
```

## ==>Trigger (before insert)

```
MariaDB [Avni]> create table people (age INT,name VARCHAR(150));
Query OK, 0 rows affected (0.008 sec)
```

```
MariaDB [Avni]> delimiter //
```

```
MariaDB [Avni]> create trigger agecheck before insert on people for each row if NEW.age < 0
-> then set NEW.age = 0; end if ; //
Query OK, 0 rows affected (0.005 sec)
```

```
MariaDB [Avni]> delimiter ;
```

```
MariaDB [Avni]> insert into people values (1,'Avni'),(2,'Anjani');
Query OK, 2 rows affected (0.003 sec)
Records: 2 Duplicates: 0 Warnings: 0
```

```
MariaDB [Avni]> select * from people;
```

```
+-----+-----+
| age | name |
+-----+-----+
| 1 | Avni |
| 2 | Anjani |
+-----+-----+
```

```
2 rows in set (0.000 sec)
```

---

## ==>Trigger (After Insert)

```
MariaDB [Avni]> CREATE TABLE members (id INT AUTO_INCREMENT primary key,name
VARCHAR(100) NOT NULL, email VARCHAR(255),birthDate DATE);
Query OK, 0 rows affected (0.009 sec)
```

```
MariaDB [Avni]> CREATE TABLE reminders(id INT AUTO_INCREMENT,memberId
INT,message VARCHAR(255) NOT NULL,PRIMARY KEY (id , memberId) );
Query OK, 0 rows affected (0.010 sec)
```

```
MariaDB [Avni]> DELIMITER $$
```

```
MariaDB [Avni]> CREATE TRIGGER after_members_insert
```

```
-> AFTER INSERT
```

```
-> ON members FOR EACH ROW
```

```
-> BEGIN
```

```
-> IF NEW.birthDate IS NULL THEN
```

```
-> INSERT INTO reminders(memberId, message)
```

```
-> VALUES(new.id,CONCAT('Hi ', NEW.name, ', please update your date of birth.'));
```

```
-> END IF;
```

```
-> END$$
```

```
Query OK, 0 rows affected (0.013 sec)
```

```
MariaDB [Avni]> delimiter ;
```

```
MariaDB [Avni]> insert into members (name,email,birthdate) values
('Avni','avani@gmail.com',NULL);
Query OK, 1 row affected (0.004 sec)
```

```
MariaDB [Avni]> select * from reminders ;
+----+-----+-----+
| id | memberId | message |
+----+-----+-----+
| 1 | 1 | Hi Avni, please update your date of birth. |
+----+-----+-----+
1 row in set (0.001 sec)
```

## ==>Trigger (before update)

```
MariaDB [Avni]> CREATE TABLE person (name varchar(45), age int);
Query OK, 0 rows affected (0.010 sec)
```

```
MariaDB [Avni]> INSERT INTO person VALUES ('Matthew', 25), ('Mark', 20);
Query OK, 2 rows affected (0.002 sec)
Records: 2 Duplicates: 0 Warnings: 0
```

```
MariaDB [Avni]> delimiter //
MariaDB [Avni]> CREATE TRIGGER person_bu BEFORE UPDATE
  -> ON person
  -> FOR EACH ROW
  -> IF NEW.age < 18 THEN
  -> SIGNAL SQLSTATE '50002' SET MESSAGE_TEXT = 'Person must be older than 18.';
  -> END IF; //
Query OK, 0 rows affected (0.005 sec)
```

```
MariaDB [Avni]> delimiter ;
MariaDB [Avni]> UPDATE person SET age = 25 WHERE name = 'Mark';
Query OK, 1 row affected (0.003 sec)
Rows matched: 1 Changed: 1 Warnings: 0
```

```
MariaDB [Avni]> CREATE TABLE average_age (age int);
Query OK, 0 rows affected (0.010 sec)
```

```
MariaDB [Avni]> delimiter //
MariaDB [Avni]> CREATE TRIGGER person_au AFTER UPDATE
  -> ON person
  -> FOR EACH ROW
  -> UPDATE average_age SET average = (SELECT AVG(age) FROM person); //
Query OK, 0 rows affected (0.004 sec)
```

```
MariaDB [Avni]> delimiter ;
MariaDB [Avni]> UPDATE person SET age = 21 WHERE name = 'John';
Query OK, 0 rows affected (0.001 sec)
Rows matched: 0 Changed: 0 Warnings: 0
```

## ===== =>Trigger (before delete)

```
MariaDB [Avni]> delimiter //
MariaDB [Avni]> CREATE TRIGGER person_bd BEFORE DELETE
  -> ON person
```

```
-> FOR EACH ROW
-> INSERT INTO person_archive (name, age)
-> VALUES (OLD.name, OLD.age); //
Query OK, 0 rows affected (0.003 sec)
```

```
MariaDB [Avni]> delimiter ;
MariaDB [Avni]> DELETE FROM person WHERE name = 'Mark';
Query OK, 1 row affected (0.042 sec)
```

```
MariaDB [Avni]> Select * from person_archive;
+-----+-----+
| name | age |
+-----+-----+
| Mark | 25 |
+-----+-----+
1 row in set (0.000 sec)
```

=====

```
=>Trigger (After Delete)
MariaDB [Avni]> CREATE TABLE average_age (age int);
ERROR 1050 (42S01): Table 'average_age' already exists
MariaDB [Avni]> delimiter //
MariaDB [Avni]> CREATE TRIGGER person_ad AFTER DELETE
-> ON person
-> FOR EACH ROW
-> UPDATE average_age SET average = (SELECT AVG(person.age) FROM person); //
Query OK, 0 rows affected (0.004 sec)
```

```
MariaDB [Avni]> delimiter ;
MariaDB [Avni]> DELETE FROM person WHERE name = 'John';
Query OK, 0 rows affected (0.001 sec)
```

```
MariaDB [Avni]> Select * from average_age
-> ;
Empty set (0.000 sec)
```