

## FUNCTIONS

The syntax to create a function in MySQL is:

```
CREATE FUNCTION function_name [ (parameter datatype [, parameter datatype]) ]  
RETURNS return_datatype
```

```
BEGIN
```

```
    declaration_section
```

```
    executable_section
```

```
END;
```

**function\_name:** The name to assign to this function in MySQL.

**Parameter :**One or more parameters passed into the function. When creating a function, all parameters are considered to be IN parameters (not OUT or INOUT parameters) where the parameters can be referenced by the function but can not be overwritten by the function.

**return\_datatype :**The data type of the function's return value.

**declaration\_section**

The place in the function where you declare local variables.

**executable\_section**

The place in the function where you enter the code for the function.

The syntax to a drop a function in MySQL is:

```
DROP FUNCTION [ IF EXISTS ] function_name;
```

**Function to compute simple interest**

```
mysql> DELIMITER //
```

```
mysql> CREATE FUNCTION ptr( p float,t int,r float ) RETURNS float
```

```
    BEGIN
```

```
        DECLARE interest float;
```

```
        SET interest =(p*t*r)/100;
```

```
        RETURN interest ;
```

```
    END;
```

```
//
```

```
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> DELIMITER ;
```

```
mysql> select ptr(4000,5,0.05);
```

```
+-----+  
| ptr(4000,5,0.05) |
```

```
+-----+
```

```
|          10 |
```

```
+-----+
```

```
1 row in set (0.00 sec)
```

## Function to print the number in reverse

```
mysql> DELIMITER //
mysql> CREATE FUNCTION reverseNumber( n int ) RETURNS int
      BEGIN
          DECLARE r int;
          DECLARE s int;
          SET s = 0;
          WHILE n>0 DO
              SET r =mod(n,10);
              SET s =s*10+r;
              SET n =truncate(n/10,0);
          END WHILE ;
          RETURN s;
      END;
      //
```

Query OK, 0 rows affected (0.00 sec)

```
mysql> select reverseNumber(123);//
```

```
+-----+
| reverseNumber(123) |
+-----+
|          321      |
+-----+
1 row in set (0.00 sec)
```

## Write a Function to Validate E-Mail

```
mysql> delimiter //
mysql> CREATE FUNCTION is_email_valid (p_email varchar(64)) RETURNS int(11)
      BEGIN
        CASE
          WHEN p_email REGEXP '^[A-Z0-9._%-]+@[A-Z0-9.-]+\.[A-Z]{2,4}$' THEN
            RETURN 1;
          ELSE
            RETURN 0;
        END CASE;
      END;
//
```

Query OK, 0 rows affected (0.00 sec)

```
mysql> select is_email_valid('xyz@gmail.com');//
```

```
+-----+
| is_email_valid('xyz@gmail.com') |
+-----+
|                1 |
+-----+
1 row in set (0.00 sec)
```

```
mysql> select is_email_valid('@xyzgmail.com');//
```

```
+-----+
| is_email_valid('@xyzgmail.com') |
+-----+
|                0 |
+-----+
1 row in set (0.00 sec)
```

Function to return details of a record given a particular value;

```
mysql> DELIMITER //
mysql> CREATE FUNCTION getName( eid int ) RETURNS varchar(20)
      BEGIN
        DECLARE name varchar(20);
        select ename into name from emp where empno=eid;
        RETURN name;
      END;
      //
```

Query OK, 0 rows affected (0.00 sec)

```
mysql> select getName(7369);//
```

```
+-----+
| getName(7369) |
+-----+
| SMITH        |
+-----+
1 row in set (0.00 sec)
```