

Ex:No: 11

Date:

Simple programming exercise using(REPEAT, WHILE)

Aim:

To learn how to use various MySQL loop statements including while, repeat to run a block of code repeatedly based on a condition.

Procedure:

WHILE loop

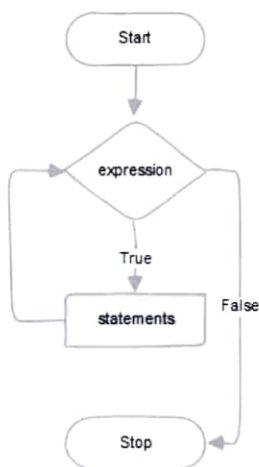
The syntax of the WHILE statement is as follows:

```
WHILE expression DO
statements
```

END WHILE

The WHILE loop checks the expression at the beginning of each iteration. If the expression evaluates to TRUE, MySQL will execute statements between WHILE and END WHILE until the expression evaluates to FALSE. The WHILE loop is called pretest loop because it checks the expression before the statements execute.

The following flowchart illustrates the WHILE loop statement:



Program1

Write a function to build a string repeatedly until the value of the variable becomes greater than 5. Then, we display the final string using a SELECT statement.

Procedure:

REPEAT loop

The syntax of the REPEAT loop statement is as follows:

```
REPEAT
statements;
UNTIL expression
```

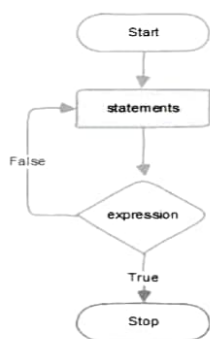
END REPEAT

First, MySQL executes the statements, and then it evaluates the expression. If the expression evaluates to FALSE, MySQL executes the statements repeatedly until the expression evaluates to TRUE.

Because the REPEAT loop statement checks the expression after the execution of statements, the REPEAT loop statement is also known as the post-test loop.

The following flowchart illustrates the REPEAT loop statement:

The following flowchart illustrates the REPEAT loop statement:



Program 2:

Write a function that uses REPEAT statement which would repeat the loop until income is greater than or equal to 4000, at which point the REPEAT loop would be terminated

Program :-1

```

mysql> CREATE PROCEDURE test_mysql_while_loop()
-> BEGIN
-> DECLARE x INT;
-> DECLARE str VARCHAR(255);
->
-> SET x = 1;
-> SET str = '';
->
-> WHILE x <= 5 DO
-> SET str = CONCAT(str,x,',');
-> SET x = x + 1;
-> END WHILE;
->
-> SELECT str;
-> END
-> //
Query OK, 0 rows affected (0.00 sec)

mysql> CALL test_mysql_while_loop() //
+-----+
| str      |
+-----+
| 1,2,3,4,5, |
+-----+
1 row in set (0.00 sec)

Query OK, 0 rows affected (0.00 sec)
  
```

Program :-2

```

mysql> CREATE PROCEDURE dorepeat(p1 INT) BEGIN SET @x=0; REPEAT SET @x=@x+1; UNTIL @x>p1 END REPEAT; END//
Query OK, 0 rows affected (0.01 sec)

mysql> CALL dorepeat(4001) //
Query OK, 0 rows affected (0.03 sec)

mysql> SELECT @x;
-> //
+-----+
| @x      |
+-----+
| 4002    |
+-----+
1 row in set (0.00 sec)
  
```

RESULT: Thus the Simple programming exercise using (REPEAT, WHILE) executed successfully.