MySQL Cursor

In MySQL, Cursor can also be created. Following are the steps for creating a cursor.

1. Declare Cursor

A cursor is a select statement, defined in the declaration section in MySQL.

Syntax

1. **DECLARE** cursor_name **CURSOR FOR**
2. **Select** statement;

Parameter:

cursor_name: name of the cursor

select_statement: select query associated with the cursor

2. Open Cursor

After declaring the cursor the next step is to open the cursor using open statement.

Syntax

1. **Open** cursor_name;

Parameter:

cursor_name: name of the cursor which is already declared.

3. Fetch Cursor

After declaring and opening the cursor, the next step is to fetch the cursor. It is used to fetch the row or the column.

Syntax

1. **FETCH** [**NEXT** [**FROM**]] cursor_name **INTO** variable_list;

Parameter:

cursor_name: name of the cursor

variable_list: variables, comma separated, etc. is stored in a cursor for the result set

4. Close Cursor

The final step is to close the cursor.

Syntax

1. **Close** cursor_name;

Parameter:

Cursor_name: name of the cursor

Example for the cursor:

Step 1: Open the database and table.

```
MySQL 8.0 Command Line Client
mysql> use test1;
Database changed
mysql> select *from table1;
+------+----------+-------+
| id   | name     | class |
+------+----------+-------+
|    1 | Shristee | MCA   |
|    2 | Ajay     | BCA   |
|    3 | Shweta   | MCA   |
|    4 | Dolly    | BCA   |
|    5 | Heena    | MCA   |
|    6 | Kiran    | BCA   |
|    7 | Sonal    | MCA   |
|    8 | Dimple   | BCA   |
|    9 | Shyam    | MCA   |
|   10 | Mohit    | BCA   |
+------+----------+-------+
10 rows in set (1.24 sec)
```

Step 2: Now create the cursor.

Query:

```
mysql> DELIMITER $$
mysql> CREATE PROCEDURE list_name (INOUT name_list varchar(4000))
    -> BEGIN
    -> DECLARE is_done INTEGER DEFAULT 0;
    -> DECLARE s_name varchar(100) DEFAULT "";
    -> DECLARE stud_cursor CURSOR FOR
    -> SELECT name FROM table1;
    -> DECLARE CONTINUE HANDLER FOR NOT FOUND SET is_done = 1;
    -> OPEN stud_cursor;
    -> get_list: LOOP
    -> FETCH stud_cursor INTO s_name;
    -> IF is_done = 1 THEN
    -> LEAVE get_list;
    -> END IF;
    -> SET name_list = CONCAT(s_name, ";",name_list);
    -> END LOOP get_list;
    -> CLOSE stud_cursor;
    -> END$$
Query OK, 0 rows affected (0.24 sec)
```

Step 3: Now call the cursor.

Query:

1. **SET** @name_list ="";
2. CALL list_name(@name_list);
3. **SELECT** @name_list;

```
mysql> SET @name_list ="";
Query OK, 0 rows affected (0.00 sec)

mysql> CALL list_name(@name_list);
Query OK, 0 rows affected (0.02 sec)

mysql> SELECT @name_list;
+------------------------------------------------------------------+
| @name_list                                                       |
+------------------------------------------------------------------+
| Mohit;Shyam;Dimple;Sonal;Kiran;Heena;Dolly;Shweta;Ajay;Shristee; |
+------------------------------------------------------------------+
1 row in set (0.00 sec)
```