

ASD EXPERIMENT 15

README

SUBMITTED BY

SHUAIB ABUBAKKER BAPPUTTY HAJI

ROLL NO 56

TCR18CS056

AIM:

Creation of database triggers and cursors.

CURSORS

Cursors are used by database programmers to process individual rows returned by database system queries. **Cursors** enable manipulation of whole result sets at once. In this scenario, a **cursor** enables the sequential processing of rows in a result set.

1. Declare Cursor

A cursor is a select statement, defined in the declaration section in [MySQL](#).

Syntax

```
DECLARE cursor_name CURSOR FOR  
Select statement;
```

2. Open Cursor

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

Syntax

```
Open cursor_name;
```

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;
```

4. Close Cursor

The final step is to close the cursor.

Syntax

```
1. Close cursor_name;
```

TRIGGERS

A **trigger** is a special type of stored procedure that automatically runs when an event occurs in the **database** server. DML **triggers** run

when a user tries to modify data through a data manipulation language (DML) event. DML events are INSERT, UPDATE, or DELETE statements on a table or view.

CREATE TRIGGER

```
CREATE TRIGGER trigger_name  
{BEFORE | AFTER} {INSERT | UPDATE | DELETE }  
ON table_name FOR EACH ROW  
trigger_body;
```

DROP TRIGGER

```
DROP TRIGGER [IF EXISTS]  
[schema_name.]trigger_name;
```

SHOW TRIGGER

```
SHOW TRIGGERS  
[{FROM | IN} database_name]  
[LIKE 'pattern' | WHERE search_condition];
```

EXECUTION STEPS:

Execute the batch script for the 15th Experiment (exp15.sql) using either of the following commands to create the data tables

- a. mysql> source exp15.sql
- b. mysql> \. exp15.sql

Read-only: you cannot update data in the underlying table through the cursor.

Non-scrollable: you can only fetch rows in the order determined by the SELECT statement. You cannot fetch rows in the reversed order. In addition, you cannot skip rows or jump to a specific row in the result set.

Asensitive: there are two kinds of cursors: asensitive cursor and insensitive cursor. An asensitive cursor points to the actual data, whereas an insensitive cursor uses a temporary copy of the data. An asensitive cursor performs faster than an insensitive cursor because it does not have to make a temporary copy of data. However, any change that made to the data from other connections will affect the data that is being used by an asensitive cursor, therefore, it is safer if you do not update the data that is being used by an asensitive cursor. MySQL cursor is asensitive.

You can use MySQL cursors in stored procedures, stored functions, and triggers.

EXECUTION STEPS:

Execute the batch script for the 15th Experiment (exp15.txt) using either of the following commands to create the data tables

a. mysql> source exp15.txt

b. mysql> \. exp15.txt