**Institute of Computer Technology**

**B. Tech. Computer Science and Engineering**

**Semester: III**

**Sub: Database Management System**

**Course Code: 2CSE301**

**Practical Number:10**

**Objective:**

*MySQL Triggers*

**Queries:**

1. **Create a trigger that converts each newly inserted language name into uppercase**
2. **Create a trigger that displays a message “The record has been inserted successfully” whenever a record is inserted in the language table.**

**Code :**

DELIMITER //

CREATE TRIGGER Upper\_name

BEFORE INSERT ON language

FOR EACH ROW

BEGIN

set new.name = upper(new.name);

END

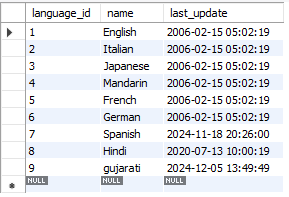
//

DELIMITER ;

INSERT INTO language VALUES (9,'Korean',CURRENT\_TIMESTAMP);

SELECT \* FROM language;

**Output :**

****

1. **Create a new table audit\_language\_update with the following schema.**

**For audit purpose, Create a trigger that inserts existing (old) record as well as updated record into above table whenever a record gets updated in ‘language’ table**

**Code :**

**CREATE TABLE audit\_language\_update (**

**language\_id TINYINT(3),**

**name CHAR(20),**

**last\_update TIMESTAMP,**

**log CHAR(20)**

**);**

**DELIMITER //**

**CREATE TRIGGER LANUPDATE**

**BEFORE UPDATE ON language**

**FOR EACH ROW**

**BEGIN**

**INSERT INTO audit\_language\_update VALUES (old.language\_id,old.name,old.last\_update,"Before Update");**

**INSERT INTO audit\_language\_update VALUES (new.language\_id,new.name,new.last\_update,"After Update");**

**END**

**//**

**DELIMITER ;**

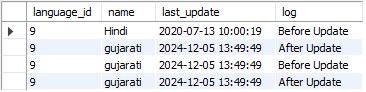
**UPDATE language**

**SET name = 'gujarati'**

**WHERE language\_id = 09;**

**SELECT \* FROM audit\_language\_update;**

**Output :**

****

1. **Create a new table language\_before\_delete with the following schema.**

**Create a trigger that keeps backup of deleted records into above table whenever a record is deleted in ‘language’ table**

**Code :**

CREATE TABLE language\_before\_delete (

language\_id TINYINT(3),

name CHAR(20),

last\_update TIMESTAMP,

log CHAR(20)

);

DELIMITER //

CREATE TRIGGER LANBEFDEL

BEFORE DELETE ON language

FOR EACH ROW

BEGIN

INSERT INTO language\_before\_delete VALUES (old.language\_id,old.name,old.last\_update,"Before Delete");

END

//

DELIMITER ;

DELETE FROM language

WHERE language\_id = 9;

SELECT \* FROM language\_before\_delete;

**Output :**

****

1. **Create a new table language\_after\_delete with the following schema.**

**Create a trigger that maintains the status of deleted records into above table whenever a record is deleted in ‘language’ table. Status should be displayed as: “Language [language\_name] with ID [language\_id] was deleted on [timestamp when the record was deleted]**

**Code :**

CREATE TABLE language\_after\_delete (

language\_id TINYINT(3),

name CHAR(20),

log CHAR(200)

);

DELIMITER //

CREATE TRIGGER LANAFTDEL

BEFORE DELETE ON language

FOR EACH ROW

BEGIN

INSERT INTO language\_after\_delete VALUES (

old.language\_id,old.name,

CONCAT(

"LANGUAGE ",old.name,

" WITH ID ",old.language\_id,

" WAS DELETED ON ",CURRENT\_TIMESTAMP

)

);

END

//

DELIMITER ;

DELETE FROM language

WHERE language\_id = 5;

SELECT \* FROM language\_after\_delete;

**Output :**

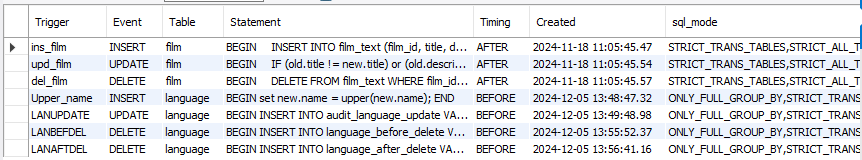


1. **Display all the triggers in your database.**

**Code :**

SHOW TRIGGERS;

**Output :**

****