

1. Create a table named teachers with fields id, name, subject, experience and salary and insert 8 rows.

```
CREATE TABLE TEACHERS (  
TEACHER_ID INT AUTO_INCREMENT PRIMARY KEY,  
NAME VARCHAR(50),  
SUBJECT VARCHAR(30),  
EXPERIENCE INT,  
SALARY DECIMAL(10, 2)  
);
```

```
INSERT INTO TEACHERS (TEACHER_ID, NAME, SUBJECT, EXPERIENCE,SALARY) VALUES  
(1, 'FAZIL', 'MATHAMATICS', 12,50000);
```

```
INSERT INTO TEACHERS ( NAME, SUBJECT, EXPERIENCE,SALARY) VALUES  
( 'SHAHID', 'PHYSICS', 10,45000),( 'KIRAN', 'CHEMISTRY', 15,65000),  
( 'JONAH', 'BIOLOGY', 8,47000),( 'TESSA', 'HINDI', 11,48500),  
( 'MARIA', 'MALAYALAM', 15,55000),( 'SURESH', 'ENGLISH', 20,75000),  
( 'SUPRIYA', 'HISTORY', 25,88500);
```

2. Create a before insert trigger named before\_insert\_teacher that will raise an error “salary cannot be negative” if the salary inserted to the table is less than zero.

```
DELIMITER $$  
CREATE TRIGGER BEFORE_INSERT_TEACHERS  
BEFORE INSERT ON TEACHERS  
FOR EACH ROW  
BEGIN  
IF NEW.SALARY<0  
THEN  
SIGNAL SQLSTATE '45000' SET MESSAGE_TEXT= "SALARY CANNOT BE NEGATIVE";  
END IF;  
END $$  
DELIMITER ;
```

```
INSERT INTO TEACHERS ( NAME, SUBJECT, EXPERIENCE,SALARY) VALUES  
( 'MENON', 'HISTORY', 25,-2000);
```

3. Create an after insert trigger named after\_insert\_teacher that inserts a row with teacher\_id, action, timestamp to a table called teacher\_log when a new entry gets inserted to the teacher table. teacher\_id -> column of teacher table, action -> the trigger action, timestamp -> time at which the new row has got inserted.

```
DELIMITER $$
CREATE TRIGGER AFTER_TEACHER_INSERT
AFTER INSERT ON TEACHERS
FOR EACH ROW
BEGIN
INSERT INTO TEACHERS_LOG(LOG_ID,TEACHER_ID,ACTION)
VALUES(LOG_ID,NEW.TEACHER_ID,'NEW TEACHER ENTRY');
END $$
DELIMITER ;
```

```
CREATE TABLE TEACHERS_LOG (
LOG_ID INT AUTO_INCREMENT PRIMARY KEY,
TEACHER_ID INT,
ACTION VARCHAR(70),
ACTION_TIME TIMESTAMP DEFAULT CURRENT_TIMESTAMP
);
```

```
SELECT * FROM TEACHERS_LOG;
```

4. Create a before delete trigger that will raise an error when you try to delete a row that has experience greater than 10 years.

```
DELIMITER $$
CREATE TRIGGER BEFORE_TEACHER_DELETE
BEFORE DELETE ON TEACHERS
FOR EACH ROW
BEGIN
IF OLD.EXPERIENCE>10
THEN
SIGNAL SQLSTATE '45000' SET MESSAGE_TEXT= 'YOU DONT HAVE THE RIGHTS TO
DELETE THIS TEACHER';
END IF;
END $$
DELIMITER ;
```

```
SELECT * FROM TEACHERS;
```

```
DELETE FROM TEACHERS WHERE NAME='MARIA'
```

5. Create an after delete trigger that will insert a row to teacher\_log table when that row is deleted from teacher table.

```
DELIMITER $$  
CREATE TRIGGER AFTER_TEACHER_DELETE  
AFTER DELETE ON TEACHERS  
FOR EACH ROW  
BEGIN  
INSERT INTO TEACHERS_LOG(LOG_ID,ACTION) VALUES(OLD.TEACHER_ID,'RETIRED  
TEACHER');  
END $$  
DELIMITER ;
```

```
DROP TRIGGER IF EXISTS BEFORE_TEACHER_DELETE;  
SET SQL_SAFE_UPDATES = 0 ;
```

```
DELETE FROM TEACHERS WHERE NAME ='MARIA';
```

```
SELECT * FROM TEACHERS_LOG;
```