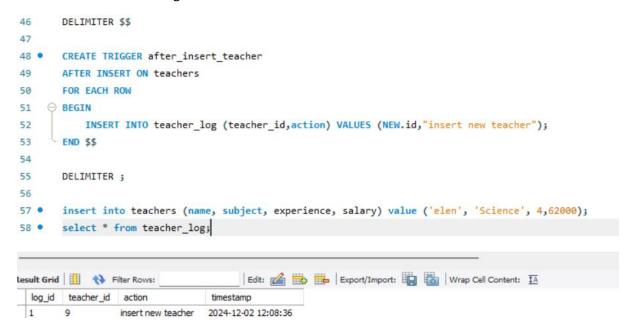1. Create a table named teachers with fields id, name, subject, experience and salary and insert 8 rows.

```sql
1       -- Q1
2  • ⊖  CREATE TABLE teachers (
3            id INT AUTO_INCREMENT PRIMARY KEY,
4            name VARCHAR(50),
5            subject VARCHAR(50),
6            experience INT,
7            salary DECIMAL(10, 2)
8       );
9
10 •    INSERT INTO teachers (name, subject, experience, salary) VALUES
11       ('Alice', 'Mathematics', 5, 50000),
12       ('Bob', 'Physics', 12, 70000),
13       ('Charlie', 'Chemistry', 8, 60000),
14       ('Diana', 'Biology', 3, 45000),
15       ('Edward', 'History', 15, 75000),
16       ('Fiona', 'Geography', 10, 55000),
17       ('George', 'English', 6, 48000),
18       ('Helen', 'Computer Science', 4, 52000);
```

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.

```
21      -- Q2
22      DELIMITER $$
23
24 •    CREATE TRIGGER before_insert_teacher
25      BEFORE INSERT ON teachers
26      FOR EACH ROW
27      BEGIN
28          IF NEW.salary < 0 THEN
29              SIGNAL SQLSTATE '45000'
30              SET MESSAGE_TEXT = 'Salary cannot be negative';
31          END IF;
32      END$$
33
34      DELIMITER ;
35
36 •    insert into teachers (name, subject, experience, salary) value ('Helen', 'Computer Science', 4,-52000);
37
```

Output

Action Output

#	Time	Action	Message
4	12:00:38	insert into teachers value ('Helen', 'Computer Science', 4, 52000)	Error Code: 1136. Column count doesn't match valu
5	12:01:06	insert into teachers (name. subiect. experience. salarv) value ('Helen'. 'Computer Science'. 4.-52000)	Error Code: 1644. Salarv cannot be neqative

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. tecaher_id -> column of teacher table, action -> the trigger action, timestamp -> time at which the new row has got inserted.

```
46      DELIMITER $$
47
48 •    CREATE TRIGGER after_insert_teacher
49      AFTER INSERT ON teachers
50      FOR EACH ROW
51      BEGIN
52          INSERT INTO teacher_log (teacher_id,action) VALUES (NEW.id,"insert new teacher");
53      END $$
54
55      DELIMITER ;
56
57 •    insert into teachers (name, subject, experience, salary) value ('elen', 'Science', 4,62000);
58 •    select * from teacher_log;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: ⸯA

log_id	teacher_id	action	timestamp
1	9	insert new teacher	2024-12-02 12:08:36

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.

```
60      -- Q4
61
62      DELIMITER $$
63
64  •   CREATE TRIGGER delete_exp
65      BEFORE DELETE ON teachers
66      FOR EACH ROW
67      BEGIN
68          IF OLD.experience > 10 THEN
69              SIGNAL SQLSTATE '45000'
70              SET MESSAGE_TEXT = 'Cannot delete teachers with more than 10 years of experience';
71          END IF;
72      END $$
73
74      DELIMITER ;
75  •   DELETE FROM teachers WHERE id = 5;
76      |
```

Output

Action Output ▾

#	Time	Action	Message
● 19	12:28:24	select * from teachers LIMIT 0, 1000	9 row(s) returned
● 20	12:28:28	DELETE FROM teachers WHERE id = 5	Error Code: 1644. Cannot delete teachers with more than 10 years of experience

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

```
78      -- Q5
79      DELIMITER $$
80
81  •   CREATE TRIGGER after_delete
82      AFTER DELETE ON teachers
83      FOR EACH ROW
84      BEGIN
85          INSERT INTO teacher_log (teacher_id,action) VALUES (OLD.ID,'teacher deleted');
86      END $$
87
88      DELIMITER ;
89  •   DELETE FROM teachers WHERE id = 1;
90  •   SELECT * FROM teacher_log;|
```

Result Grid | ▤ ↻ Filter Rows: [   ] | Edit: ✎ ▦ ▦ | Export/Import: ▦ ▦ | Wrap Cell Content: ẊA

log_id	teacher_id	action	timestamp
1	9	insert new teacher	2024-12-02 12:08:36
2	5	insert new teacher	2024-12-02 12:28:19
3	1	teacher deleted	2024-12-02 12:32:40