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Experiment No.	C10
Topic	Crime Records

AIM:	**To examine integrity of database using Triggers.**
Program 1	
PROBLEM STATEMENT:	Create 2 tables as follows, Parent (a number primary key, b number); Child(a number references Parent, b number); Insert values in Parent table as follows, **a** | **b** 1 | 2 2 | 4 Insert values in Child table as follows, **a** | **b** 1 | 10 2 | 7 1) Write a trigger that performs cascading update. 2) Write a trigger that performs reverse cascading update. 3) Write a trigger that performs cascading delete.
RESULT:	

```sql
CREATE DATABASE Triggers;
USE Triggers;

CREATE TABLE Parent(a INT PRIMARY KEY, b INT);
CREATE TABLE Child(a INT, b INT, FOREIGN KEY (a) REFERENCES Parent(a));

INSERT INTO Parent VALUES (1, 2), (2, 4);
INSERT INTO Child VALUES (1, 10), (2, 7);

DELIMITER //
CREATE PROCEDURE Display()
BEGIN
    SELECT * FROM Parent;
    SELECT * FROM Child;
END;
//
DELIMITER ;
```

Output:

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

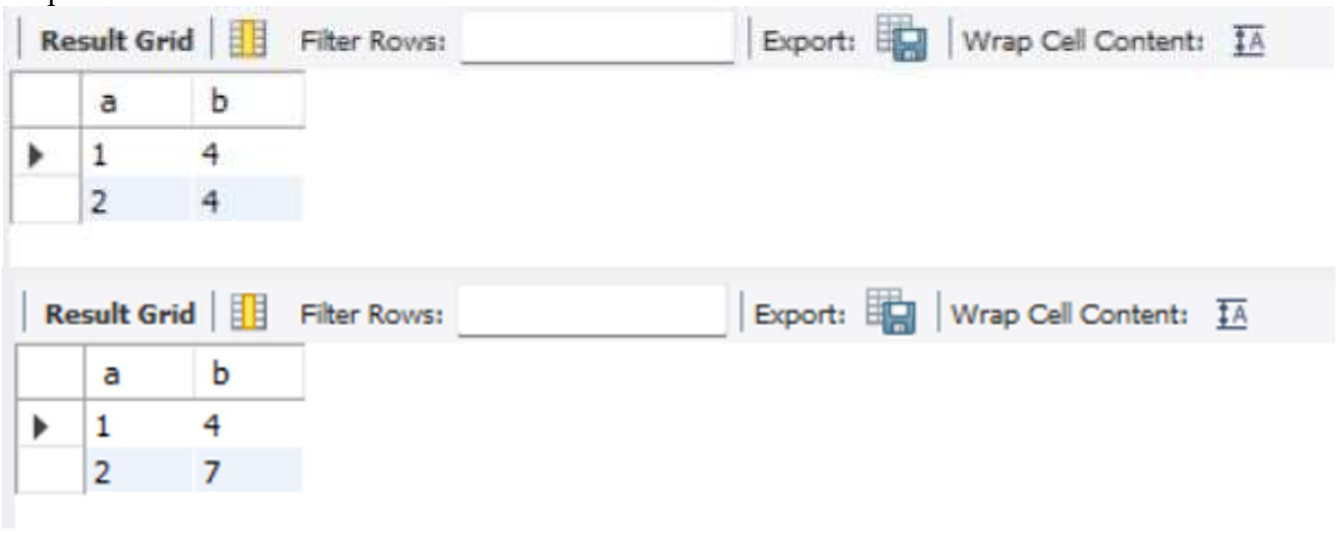
	a	b
▶	1	2
	2	4

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

	a	b
▶	1	10
	2	7

```
19      DELIMITER //
20  •   CREATE TRIGGER cascading_update
21      AFTER UPDATE ON Parent FOR EACH ROW
22      BEGIN
23          UPDATE Child SET b = NEW.b
24          WHERE a = OLD.a;
25      END;
26      //
27      DELIMITER ;
28
29  •   CALL DISPLAY();
30  •   UPDATE Parent SET b = 4 WHERE a = 1;
31  •   CALL DISPLAY();
32
33  •   DROP trigger cascading_update;
34
```

Output:



```
37      DELIMITER //
38  •   CREATE TRIGGER reverse_cascading_update
39      AFTER UPDATE ON Child FOR EACH ROW
40      BEGIN
41          UPDATE Parent
42          SET b = NEW.b
43          WHERE a = OLD.a;
44      END;
45      //
46      DELIMITER ;
47
48  •   CALL DISPLAY();
49  •   UPDATE Child SET b = 5 WHERE a = 2;
50  •   CALL DISPLAY();
51
52  •   DROP trigger reverse_cascading_update;
53
```

Output:

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

	a	b
▶	1	2
	2	5

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

	a	b
▶	1	10
	2	5

```
54      DELIMITER //
55  •   CREATE TRIGGER cascading_delete
56      BEFORE DELETE ON Parent FOR EACH ROW
57      BEGIN
58          DELETE FROM Child
59          WHERE a = OLD.a;
60      END;
61      //
62      DELIMITER ;
63
64  •   CALL DISPLAY();
65  •   DELETE FROM Parent WHERE a = 2;
66  •   CALL DISPLAY();
67
68  •   DROP trigger cascading_delete;
69
```

Output: