

1.

Creating the Tables:

```
CREATE TABLE table1 (  
  a1 INT  
);
```

```
CREATE TABLE table2 (  
  a2 INT  
);
```

```
CREATE TABLE table3 (  
  a3 INT  
);
```

```
CREATE TABLE table4 (  
  a4 INT,  
  b4 INT  
);
```

Current values of all the tables:

Table 1- Empty

Table 2- Empty

Table 3-

a3
4

Table 4-

a4	b4
4	7

DELIMITER //

```
CREATE TRIGGER table1_trigger  
AFTER INSERT ON table1  
FOR EACH ROW  
BEGIN  
  INSERT INTO table2 (a2) VALUES (NEW.a1);
```

```

DELETE FROM table3 WHERE a3 = NEW.a1;

UPDATE table4
SET b4 = b4 + 1
WHERE a4 = NEW.a1;
END;
//

DELIMITER ;

```

Now 4 has been inserted into Table T1

New state of tables are:

Table T2-

a2
4

Table T3-

Empty

a3

Table T4-

a4	b4
4	8

2.

```

CREATE TABLE borrower_count (
  cardno INT PRIMARY KEY,
  number_of_books_borrowed INT
);

```

```
CREATE TABLE book_loans (
  loan_id INT PRIMARY KEY AUTO_INCREMENT,
  cardno INT,
  book_id INT,
  loan_date DATE;
  FOREIGN KEY (cardno) REFERENCES borrower_count(cardno)
);
```

```
DELIMITER //
```

```
CREATE TRIGGER book_loans_trigger
AFTER INSERT ON book_loans
FOR EACH ROW
BEGIN
  DECLARE borrower_cardno INT;
  SET borrower_cardno = NEW.cardno;

  IF EXISTS (SELECT * FROM borrower_count WHERE cardno = borrower_cardno) THEN
    UPDATE borrower_count
    SET number_of_books_borrowed = number_of_books_borrowed + 1
    WHERE cardno = borrower_cardno;
  ELSE
    INSERT INTO borrower_count (cardno, number_of_books_borrowed)
    VALUES (borrower_cardno, 1);
  END IF;
END;
//
DELIMITER ;
```

	loan_id	cardno	book_id	loan_date
<input type="checkbox"/> Edit Copy Delete	2	123	456	2023-11-13

	cardno	number_of_books_borrowed
<input type="checkbox"/> Edit Copy Delete	123	1