

Program 2

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(1) Submit the syntax for the triggers.

1.

```
mysql> delimiter //
```

```
create trigger made_money_insert before insert on made_money
```

```
for each row
```

```
begin
```

```
    if new.Category != "Comedy" and new.Category != "Drama" and  
new.Category != "Action" and new.Category != "Romantic" then
```

```
        set new.Category = "Action";
```

```
    end if;
```

```
    if new.HOW_MUCH < 1000 or new.HOW_MUCH > 3000000000
```

```
    then
```

```
        SIGNAL SQLSTATE 'HY000'
```

```
        SET MESSAGE_TEXT = "check constraint on made_money" ;
```

```
    end if;
```

```
    if new.Category = "Action" and new.HOW_MUCH < 10000
```

```
    then
```

```
        SIGNAL SQLSTATE 'HY000'
```

```
        SET MESSAGE_TEXT = "check constraint on made_money" ;
```

```
    end if;
```

```
    if new.Category = "Comedy" and new.HOW_MUCH > 1000000000
```

```
    then
```

```
        SIGNAL SQLSTATE 'HY000'
```

```
        SET MESSAGE_TEXT = "check constraint on made_money" ;
```

```
    end if;
```

```
end; //
```

```
create trigger movie_category_update before update on made_money
for each row
begin
    if new.Category != "Comedy" and new.Category != "Drama" and
new.Category!= "Action" and new.Category != "Romantic" then
        set new.Category = "Action";
    end if;
end; //
```

```
mysql> delimiter ;
```

2.

```
mysql> delimiter //
```

```
create trigger comedy_insert after insert on appeared_in
for each row
begin
    if (select category from made_money M where M.Movie = new.Movie ) =
"Comedy" and
        not exists (select C.Movie From made_money C, made_money E,
appeared_in D where D.star = new.star and D.movie = C.movie and (C.Category =
"Romantic" or "Comedy" or "Drama") and E.Movie = new.Movie and
C.DAY_OPENED < E.DAY_OPENED)
    then
        update made_money
        set Category = "Drama"
        where new.Movie = made_money.Movie;
    end if;
end; //
```

```
mysql> delimiter ;
```

3.

```
mysql> delimiter //
```

```
create trigger married_insert before insert on married
for each row
begin
  if exists
    (select distinct * from in_couple C left join
      married M on C.COUPLE_NUM = M.COUPLE_NUM left join
      divorced D on C.COUPLE_NUM = D.COUPLE_NUM,
    (select W.STAR
      from married Ma, in_couple W, in_couple H
      where new.COUPLE_NUM = W.COUPLE_NUM and
        new.COUPLE_NUM = H.COUPLE_NUM and
        W.STAR != H.STAR) as FS
    where FS.star = C.STAR and
      C.COUPLE_NUM != new.COUPLE_NUM and
      new.day >= ifnull(M.DAY, "2020-12-12") and
      new.day <= ifnull(D.DAY, "2020-12-12")
    )
  then
    SIGNAL SQLSTATE 'HY000'
    SET MESSAGE_TEXT = "check constraint on married" ;
  end if;
end; //
```

```
mysql> delimiter ;
```

4.

The answer to this question is included in the trigger made_money_insert in

question 1.

5.

```
mysql> delimiter //
```

```
create trigger divorced_insert before insert on divorced
```

```
    for each row
```

```
    begin
```

```
        if new.DAY < (select DAY from married where COUPLE_NUM =  
new.COUPLE_NUM)
```

```
        then
```

```
            set new.Day = (select DAY from married where COUPLE_NUM =  
new.COUPLE_NUM);
```

```
        end if;
```

```
    end; //
```

```
mysql> delimiter ;
```

6.

```
mysql> delimiter //
```

```
create trigger made_money_insert_log_data after insert on made_money
```

```
    for each row
```

```
    begin
```

```
        insert into log_data
```

```
        values (new.MOVIE, new.Category);
```

```
    end; //
```

```
mysql> delimiter ;
```

(2) Submit your observations as to what happens in the database when you perform the following statements.

a) Success.

b) Success. But change the category from "Horror" to "Action".

c) Success. But change the category of "Bruce Almighty" from "Comedy" to "Drama".

d) Error: "check constraint on married".

e) The first insert is error: "check constraint on made_money";
The second one is successful.

f) Error: "check constraint on made_money".

g) Success. But change the day into "2005-06-25".

(3) LOG_DATA table after performing the above statements:

Movie	Category
IRON MAN	Action
Speed	Comedy
NULL	NULL