

# Project 2

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Codes are following:

## # Question 1

```
delimiter $$
drop trigger if exists movie_type_constrain $$
create trigger movie_type_constrain

before insert on made_money

for each row
begin

if new.Category = null or
(new.Category!='Romantic' and new.Category!='Comedy' and new.Category!='Drama' and
new.Category!='Action') then
set new.Category='Action';
end if;

end $$
```

## # Question 2

```
delimiter $$
drop trigger if exists star_constrain $$
create trigger star_constrain

before insert on appeared_in

for each row
begin
if not exists
(
select *
from made_money a, appeared_in b
where b.star=new.star and a.movie= b.movie and
(select day_opened from made_money where movie=new.movie) > a.day_opened and
a.category in ('Romantic','Drama','Comedy')
)
then
```

```
update made_money as c
set c.category='Drama'
where c.movie=new.movie;
end if;
end $$
```

### # Question 3

```
delimiter $$
drop trigger if exists married_constrain $$
create trigger married_constrain
```

```
after insert on married
```

```
for each row
begin
```

```
if
```

```
# could we use with in trigger?
exists(select star from (
select * from in_couple
join married
group by star
having married.couple_num = new.couple_num and count(star) > 1) as a
where (a.star not in
(select star from divorced
join in_couple
group by star)))
```

```
then
```

```
# there an error detected.
```

```
signal sqlstate '45000' set message_text = "A star cannot be married to multiple stars
simultaneously.";
```

```
end if;
```

```
end $$
```

### # Question 4

```

delimiter $$
drop trigger if exists expense_constraint $$
create trigger expense_constraint

before insert on made_money

for each row follows movie_type_constrain

begin
# put constrain below

# 1st, general
if (new.how_much <= 1000 or new.how_much >= 3000000000)
then
signal sqlstate '45000'
set message_text = '1st constrain dissatisfied. Value out of money range';

# 2nd, on action movie
elseif (new.category='Action' and new.how_much <= 10000)
then
signal sqlstate '45000'
set message_text = '2nd constrain dissatisfied, action movies should make at least 10000
dollars';

elseif(new.category='Comedy' and new.how_much >= 10000000000) then
signal sqlstate '45000'
set message_text = '3rd constrain dissatisfied, comedy movies couldn"t make that much
money';

end if;
end $$

```

### # Question 5

```

delimiter $$
drop trigger if exists divorce_constraint $$
create trigger divorce_constraint

before insert on divorced

for each row
begin
if

```

```

# larger
    (new.day < (select t1.day from married t1 where t1.couple_num = new.couple_num
limit 1))
then
# set to equal
    set new.day = (select t2.day from married t2 where t2.couple_num = new.couple_num);

end if;
end $$

```

```

# a).
INSERT into made_money
VALUES ('IRON MAN',10000000,'2008-05-02','ACTION');

```

133 • INSERT into made\_money  
 134 VALUES ('IRON MAN',10000000,'2008-05-02','ACTION');  
 135  
 136

130% 1:133

Action Output

	Time	Action	Response
✓ 84	23:38:12	INSERT into made_money VALUES ('IRON MAN',...	1 row(s) affected

```

# b).
UPDATE made_money SET category='Horror' WHERE movie='Fight Club'

```

136 # b).  
 137 UPDATE made\_money SET category='Horror' WHERE movie='Fight Club'  
 138

130% 65:137

Action Output

	Time	Action	Response
✓ 85	23:39:20	UPDATE made_money SET category='Horror' W...	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0

```

# c).
INSERT INTO APPEARED_IN VALUES('Matt Damon','Bruce Almighty')

```

139 # c).  
 140 INSERT INTO APPEARED\_IN VALUES('Matt Damon','Bruce Almighty')  
 141

130% 62:140

Action Output

	Time	Action	Response
✓ 86	23:39:32	INSERT INTO APPEARED_IN VALUES('Matt Dam...	1 row(s) affected

```

# d).
INSERT INTO MARRIED VALUES(1, '2015-06-26')
select * from married;

```

```

142 # d).
143 INSERT INTO MARRIED VALUES(1, '2015-06-26')
144 select * from married;
145

```

	Time	Action	Response
87	23:39:42	INSERT INTO MARRIED VALUES(1, '2015-06-26'...	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your

# e).

insert into made\_money values ('Most Welcome', 8000, '2012-07-07', 'Action')

insert into made\_money values ('speed', 9000, '2010-03-28', 'Comedy')

```

146 # e).
147 insert into made_money values ('Most Welcome', 8000, '2012-07-07', 'Action')
148 insert into made_money values ('speed', 9000, '2010-03-28', 'Comedy')
149
150

```

	Time	Action	Response
88	23:39:55	insert into made_money values ('Most Welcome',...	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds
89	23:40:05	insert into made_money values ('Most Welcome',...	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds

# f).

insert into made\_money values ('Hangover',1500000000, '2011-03-05', 'Comedy')

```

150 # f).
151 insert into made_money values ('Hangover',1500000000, '2011-03-05', 'Comedy')
152
153 # g).
154 insert into divorced values(6,'2004-01-01')
155

```

	Time	Action	Response
89	23:40:05	insert into made_money values ('Most Welcome',...	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to y
90	23:40:16	insert into made_money values ('Hangover',1500...	Error Code: 1644. 3rd constrain dissatisfied, comedy movies couldn't make that much money

# g).

insert into divorced values(6,'2004-01-01')

```

153 # g).
154 insert into divorced values(6,'2004-01-01')
155
156

```

	Time	Action	Response
90	23:40:16	insert into made_money values ('Hangover',1500...	Error Code: 1644. 3rd constrain dissatisfied, comedy movies cou
91	23:40:27	insert into divorced values(6,'2004-01-01')	1 row(s) affected

# Extra

delimiter \$\$

drop trigger if exists EXTRA \$\$

```
create trigger EXTRA
```

```
before insert on made_money
```

```
for each row follows expense_constraint
```

```
begin
```

```
insert into log_data values(new.movie,new.category);
```

```
end $$
```

Show that

```
select * from log_data
```

If we do extra trigger after implementing 5 triggers first, then the log\_data would still be null.

Result Grid			
	Movie	Category	
▶	NULL	NULL	

But if start from initial again, then the answer would be:

	Movie	Category	
▶	IRON MAN	ACTION	
	speed	Comedy	
	NULL	NULL	