

SQL Programming Homework 1

EECS 495

Xiaolin Li #2791913

1. SELECT MOVIE
FROM APPEARED_IN
WHERE STAR = 'Edward Norton'

Result:

```
# MOVIE
'Fight Club'
'The Illusionist'
'The Incredible Hulk'
```

2. Select distinct STAR
FROM appeared_in
where Star <> 'Brad Pitt' and movie in (select movie
from appeared_in
where star='Brad Pitt')

Result:

```
# STAR
'Edward Norton'
'Angelina Jolie'
'George Clooney'
'Matt Damon'
'Vincent Cassel'
```

3. select sum(HOW_MUCH) as total
from made_money m
where m.movie in (select distinct a.movie
from appeared_in a, appeared_in b
where a.star = 'Tom Hanks' and b.star='Rita Wilson' and a.movie=b.movie)

Result:

```
# total
'51444736.00'
```

4. select star
from in_couple
where star <> 'Ben Affleck' and couple_num in (select a.COUPLE_NUM
from divorced, in_couple a
where a.COUPLE_NUM = divorced.COUPLE_NUM and a.star = 'Ben Affleck')

Result:

star

'Jennifer Garner'

5. select star
from in_couple
where couple_num in (select married.couple_num
from married, divorced
where married.day = divorced.day)

Result:

star

'Angelina Jolie'

'Brad Pitt'

6.
create view STAR_MARRIED_TIME as
select a.star as p1, b.star as p2, a.COUPLE_NUM, married.DAY
from in_couple a, in_couple b, married
where a.COUPLE_NUM = married.COUPLE_NUM and a.couple_num = b.couple_num and
a.star>b.star;

create view STAR_MOVIE_TIME as
select c.star as p1, d.star as p2, made_money.DAY_OPENED
from appeared_in c, appeared_in d, made_money
where c.Movie = d.Movie and made_money.movie = c.movie and c.star>d.star;

create view S_Married as
select p1,p2,min(day) as married_day
from STAR_married_TIME
group by p1,p2;

create view S_Movie as
select p1,p2,min(day_opened) as movie_day
from STAR_MOVIE_TIME
group by p1,p2;

select p1,p2
from S_married natural join S_movie
where married_day>movie_day;

drop view star_married_time,star_movie_time, S_married, S_movie;

Result:

p1, p2

'Brad Pitt', 'Angelina Jolie'

'Jennifer Garner', 'Ben Affleck'

'Tom Hanks', 'Rita Wilson'

'Vincent Cassel', 'Monica Bellucci'

7.

```
select star
from appeared_in
group by star
having count(movie) >= all(select count(movie)
                           from appeared_in
                           group by star)
```

Result:

star

'Brad Pitt'

'Matt Damon'

'Tom Hanks'

8.

```
select a.star, b.star
from in_couple a, in_couple b
where a.star > b.star and a.couple_num = b.couple_num
group by a.star
having count(a.star) > 1
```

Result:

star, star

'Brad Pitt', 'Angelina Jolie'

'Tom Hanks', 'Rita Wilson'

9.

```
select star
from in_couple, divorced
where in_couple.couple_num = divorced.COUPLE_NUM
group by star
having count(*) > 1
```

Result:

star

'Angelina Jolie'

'Brad Pitt'

'Tom Hanks'

```

10. select star
    from appeared_in, made_money
    where appeared_in.movie = made_money.movie
    group by star
    having avg(HOW_MUCH) >= all (select avg(how_much)
                                from appeared_in, made_money
                                where appeared_in.movie = made_money.movie
                                group by star)

```

Result:

```

# star
'Scarlett Johansson'

```

```

11. create view m_d_time as
    select couple_num, married.day as md, divorced.day as dd
    from married left outer join divorced using(couple_num);

create view Star_md as
    select m_d_time.couple_num, a.star as star, md, dd
    from m_d_time, in_couple a
    where m_d_time.COUPLE_NUM = a.COUPLE_NUM;

create view income_list as
    select star, HOW_MUCH, DAY_OPENED
    from appeared_in, made_money
    where appeared_in.movie = made_money.movie;

create view income as
    select couple_num, Star_md.star, md, dd, HOW_MUCH, DAY_OPENED
    from Star_md, income_list
    where star_md.star = income_list.star and DAY_OPENED > md and (DAY_OPENED < dd or dd is
    null);

create view dis as
    select *
    from income
    group by couple_num, DAY_OPENED;

create view result as
    select couple_num, avg(how_much) as avg_income
    from dis
    group by couple_num;

select a.star as star1, b.star as star2

```

```
from in_couple a, in_couple b, result
where a.COUPLE_NUM = b.COUPLE_NUM and result.COUPLE_NUM=a.COUPLE_NUM and
a.star>b.star and avg_income >= ALL
(select avg_income
from in_couple a, in_couple b, result
where a.COUPLE_NUM = b.COUPLE_NUM and result.COUPLE_NUM=a.COUPLE_NUM and
a.star>b.star);
```

```
drop view m_d_time, star_md, income_list, income, dis, result;
```

Result:

```
# star1, star2
```

```
'Scarlett Johansson', 'Ryan Reynolds'
```