به نام خدا

تکلیف دوم پایگاه داده

حدیث غفوری ۹۸۲۵۴۱۳

سوال ۱

داده	نوع متغیر
سه حرف مخفف شده ماه های میلادی	Char(3)
قیمت دلاری محصوالت که همگی دو رقم اعشار دارند.	Numeric()
نام و نام خانوادگی کاربر	Varchar(60)
کدملی کاربر	Char(10)
ذخیره قیمت لحظه ای ارز های دیجیتال دلار	Float()
تعداد بازدید یک ویدئو	Int()

سوال ۲

```
Create table data(
        nationalCode    char(10),
        fullName        varchar(60),
        acronymsAD      char(3),
        viewsNumber     int(),
        dollarPrice     float(2),
        digitalCurrencies   numberic(),
        primary key (nationalCode),
        foreign key (nationalCode) refrences users(social_number)
);
```

سوال ۳

a. بازنوییسی بدون استفاده از دستور uninque

```
WHERE (SELECT distinct name from student)
```

b. بازنوییس بدون استفاده از دستور like

```
WHERE first_name ~~ 'me%' AND last_name ~~ '%avi'
```

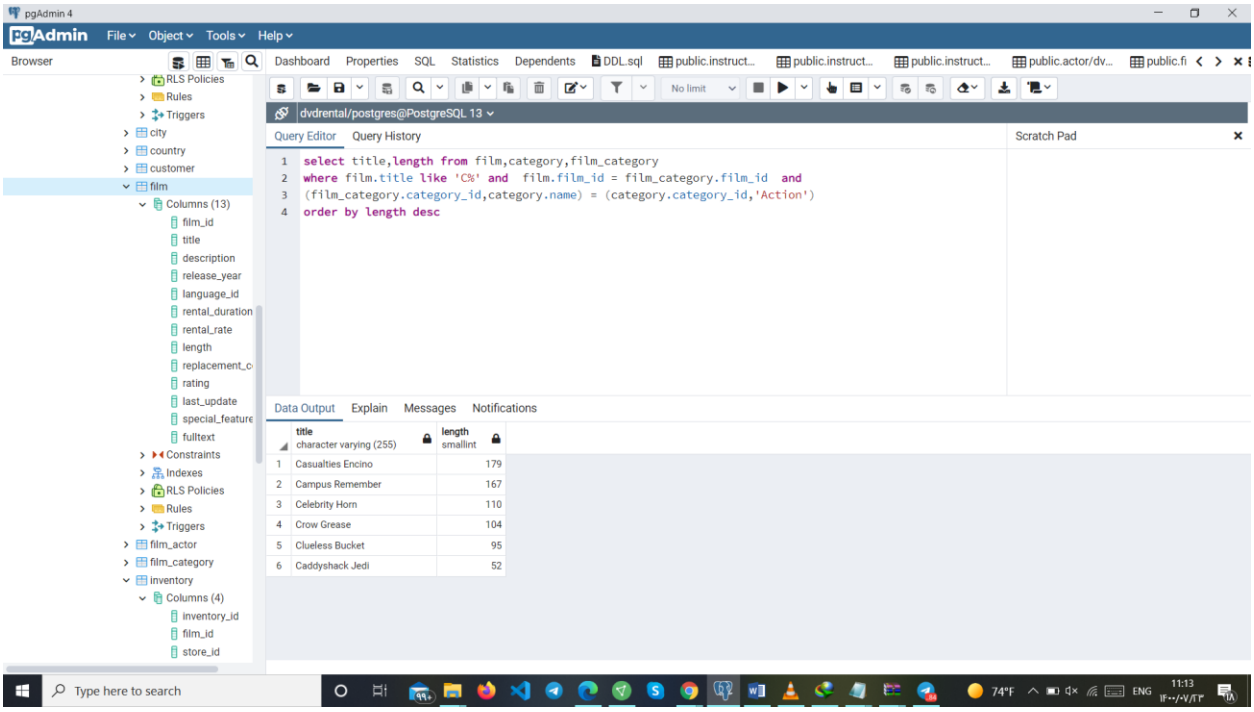
c. بازنوییس بدون اپراتور||

```
SELECT concat(first_name,last_name);
```

سوال ۴

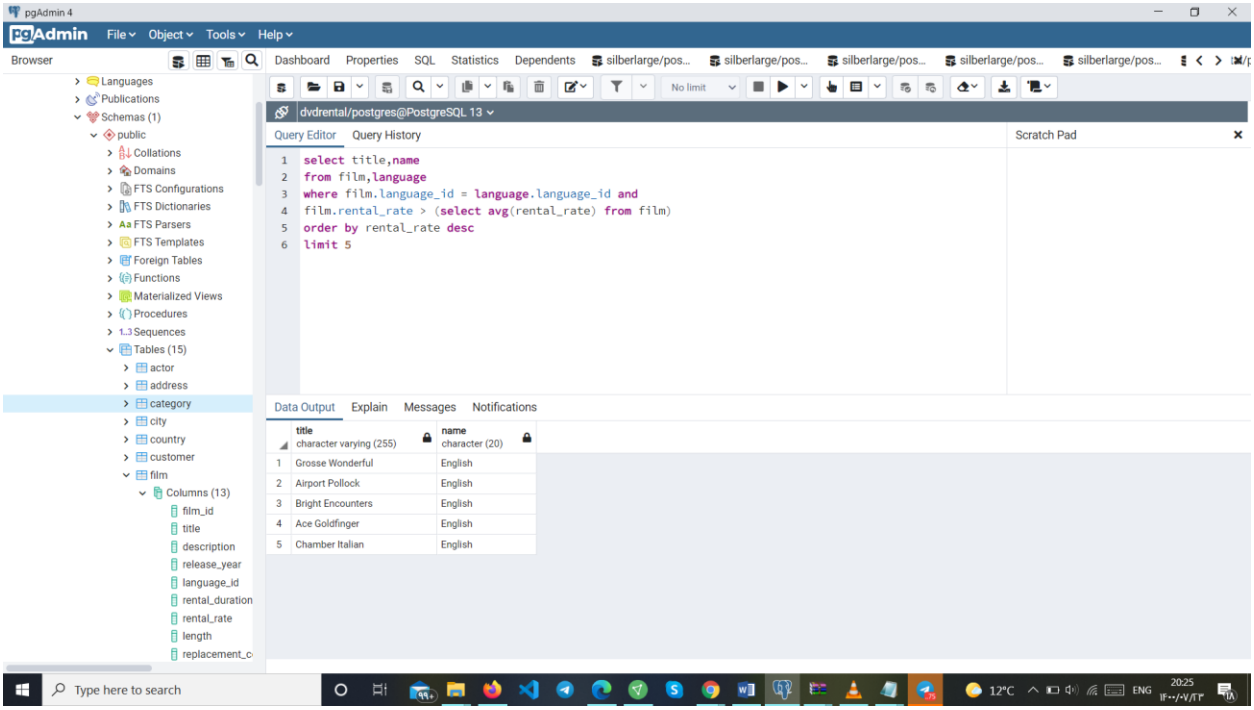
a.

```
select title,length from film,category,film_category
where film.title like 'C%' and film.film_id = film_category.film_id and
(film_category.category_id,category.name)=(category.category_id,'Action')
order by length desc
```



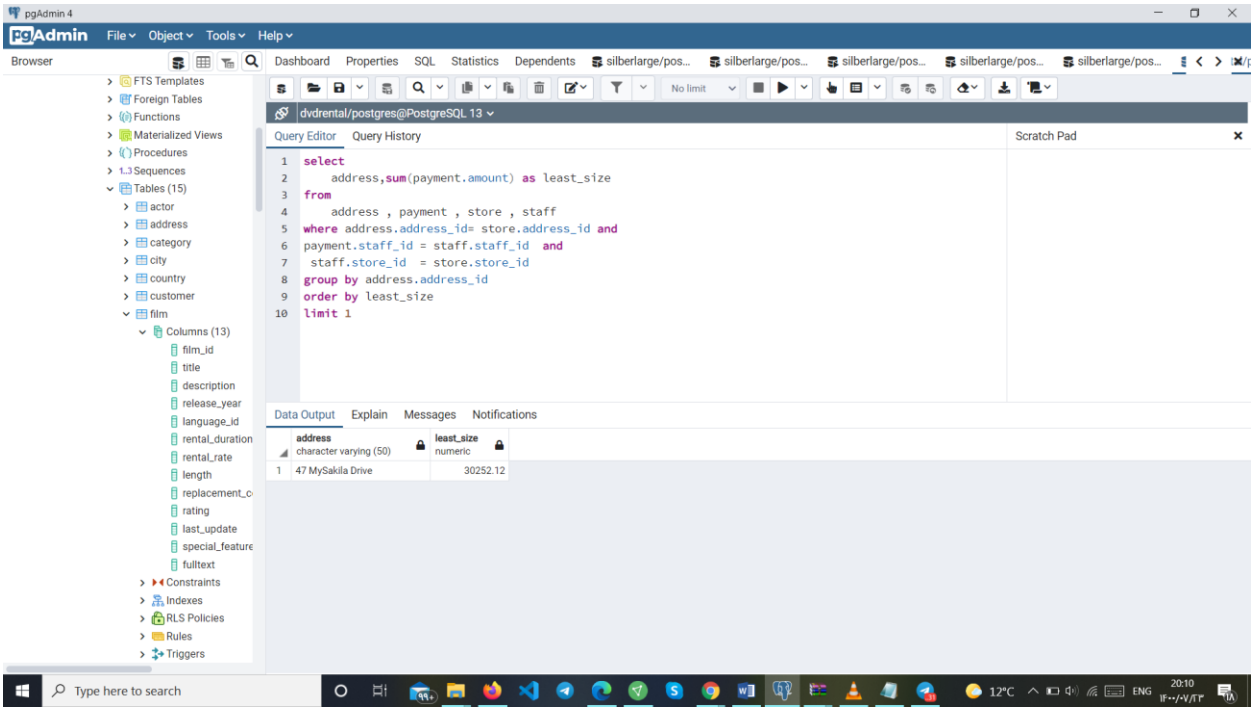
b.

```
select title,name
from film,language
where film.language_id = language.language_id and
film.rental_rate > (select avg(rental_rate) from film)
order by rental_rate desc
limit 5
```



d.

```
select
address,sum(payment.amount) as least_size
from
address , payment , store , staff
where address.address_id= store.address_id and
payment.staff_id = staff.staff_id  and
staff.store_id  = store.store_id
group by address.address_id
order by least_size
limit 1
```

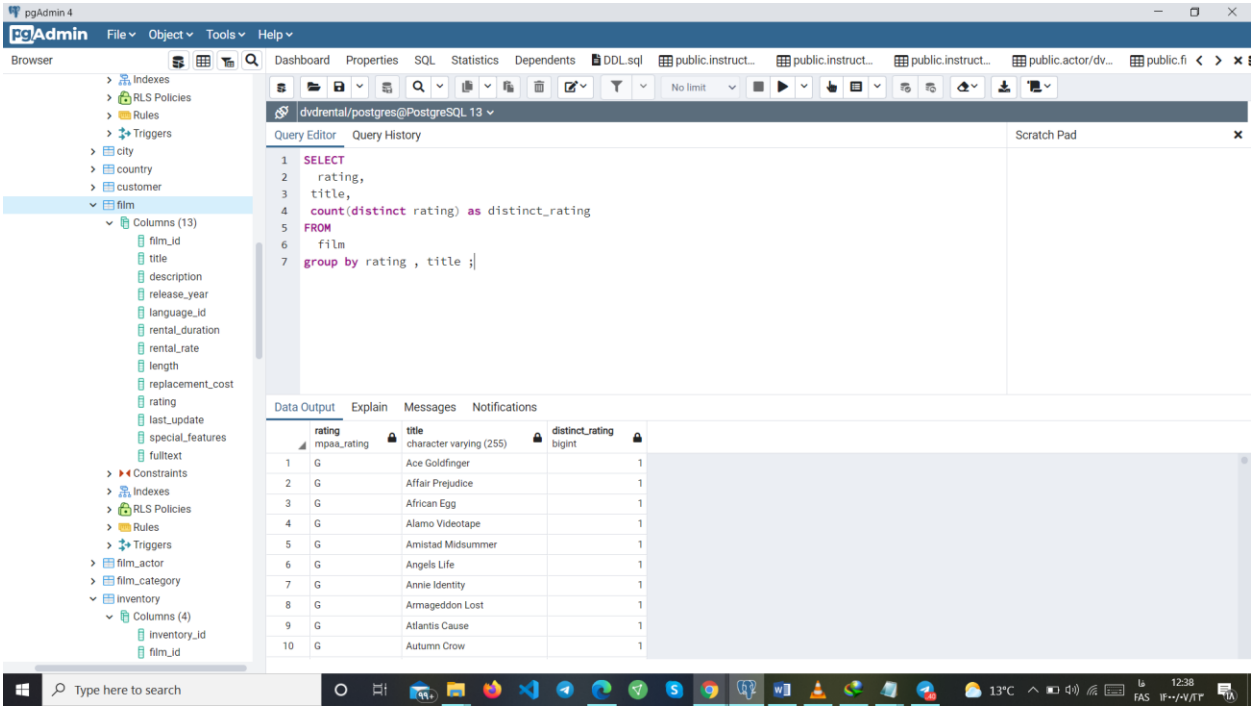


e.

select rating,title,count(distinct rating) as distinct_rating

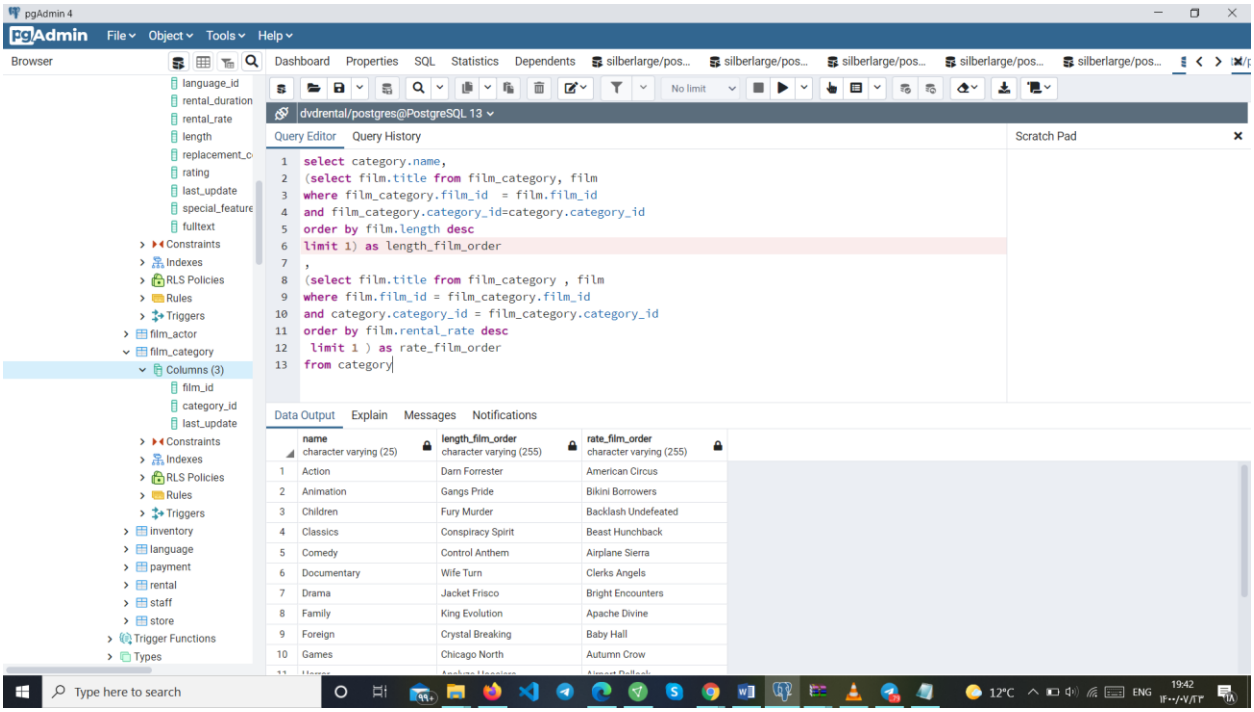
from film

group by rating,title;



f.

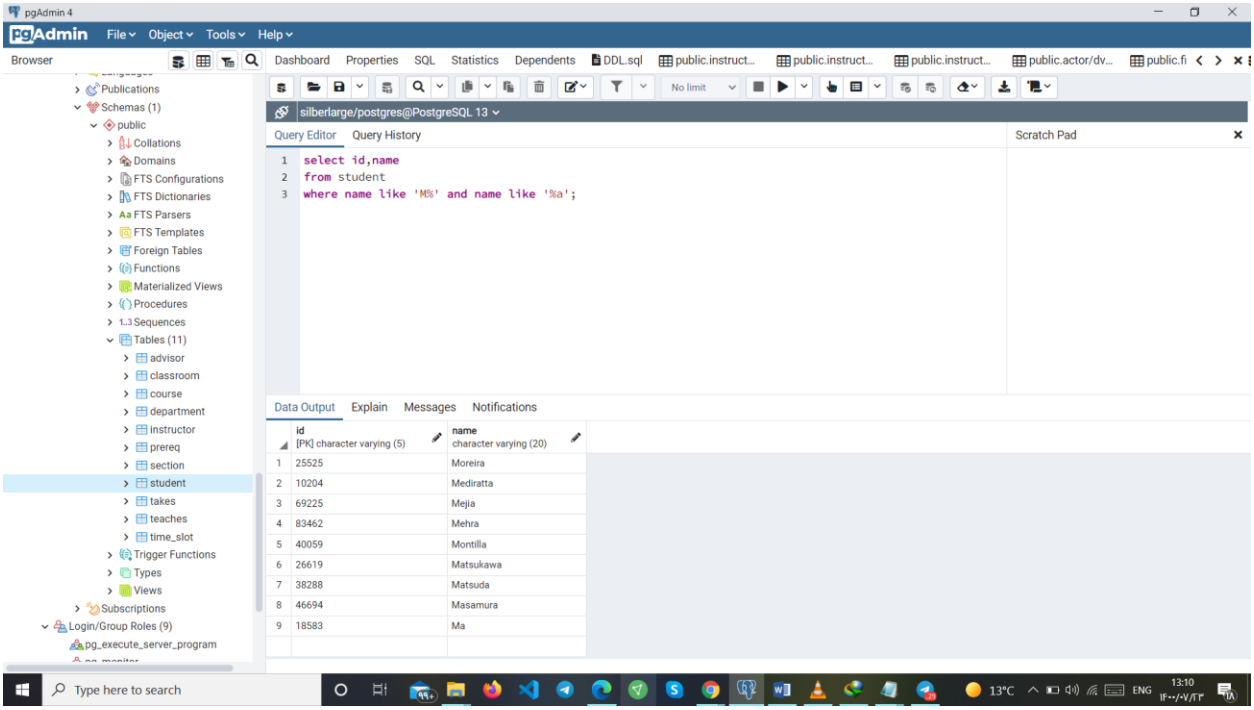
```
select category.name,
select film.title from film_category, film)
where film_category.film_id  = film.film_id
and film_category.category_id=category.category_id
order by film.length desc
limit 1) as length_film_order
,
select film.title from film_category , film)
where film.film_id = film_category.film_id
and category.category_id = film_category.category_id
order by film.rental_rate desc
limit 1 ) as rate_film_order
from category
```



سوال ۵

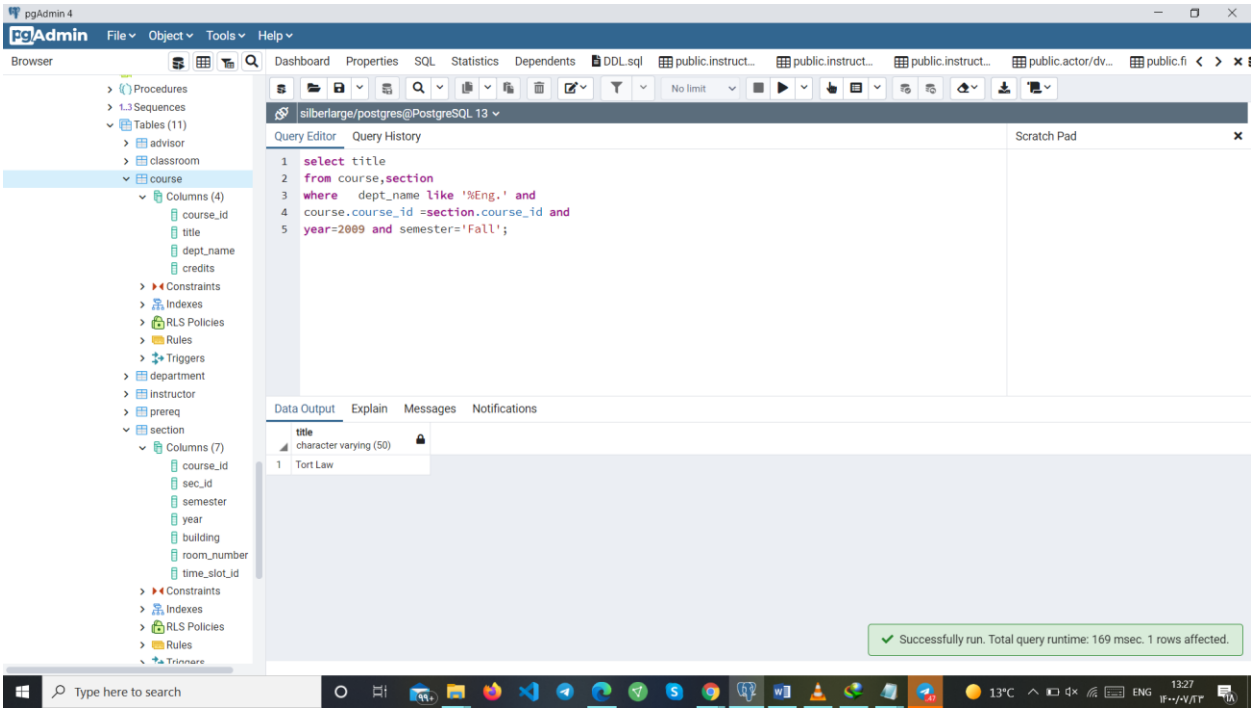
a.

```
select id,name
from student
where name like 'M%' and name like '%a';
```



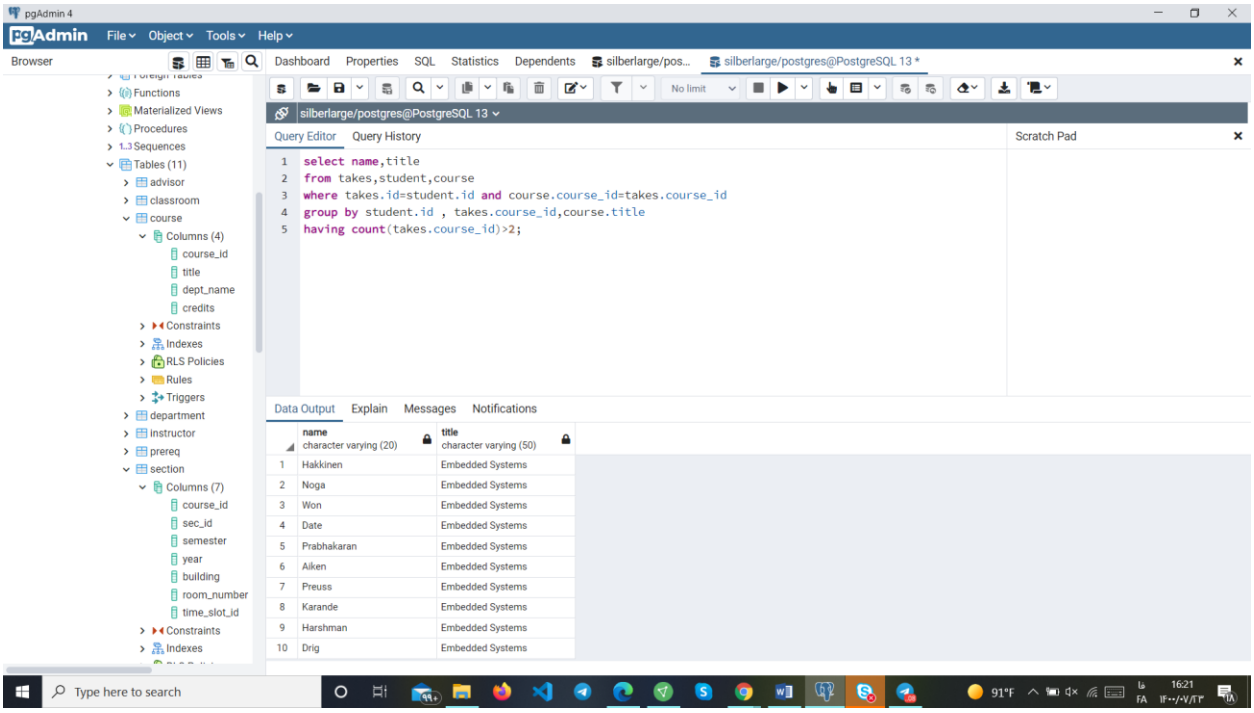
b.

```
select title
from course,section
where   dept_name like '%Eng.' and
course.course_id =section.course_id and
year=2009 and semester='Fall';
```



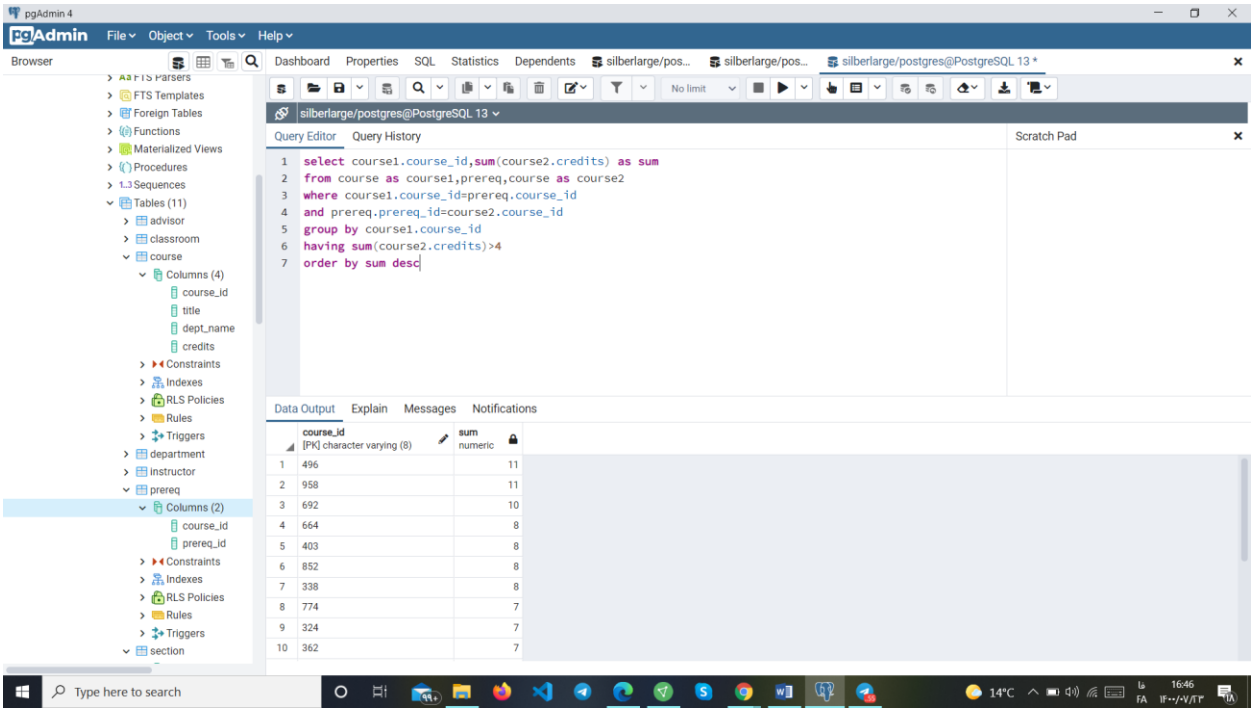
c.

```
select name,title
from takes,student,course
where takes.id=student.id and course.course_id=takes.course_id
group by student.id , takes.course_id,course.title
having count(takes.course_id)>2;
```



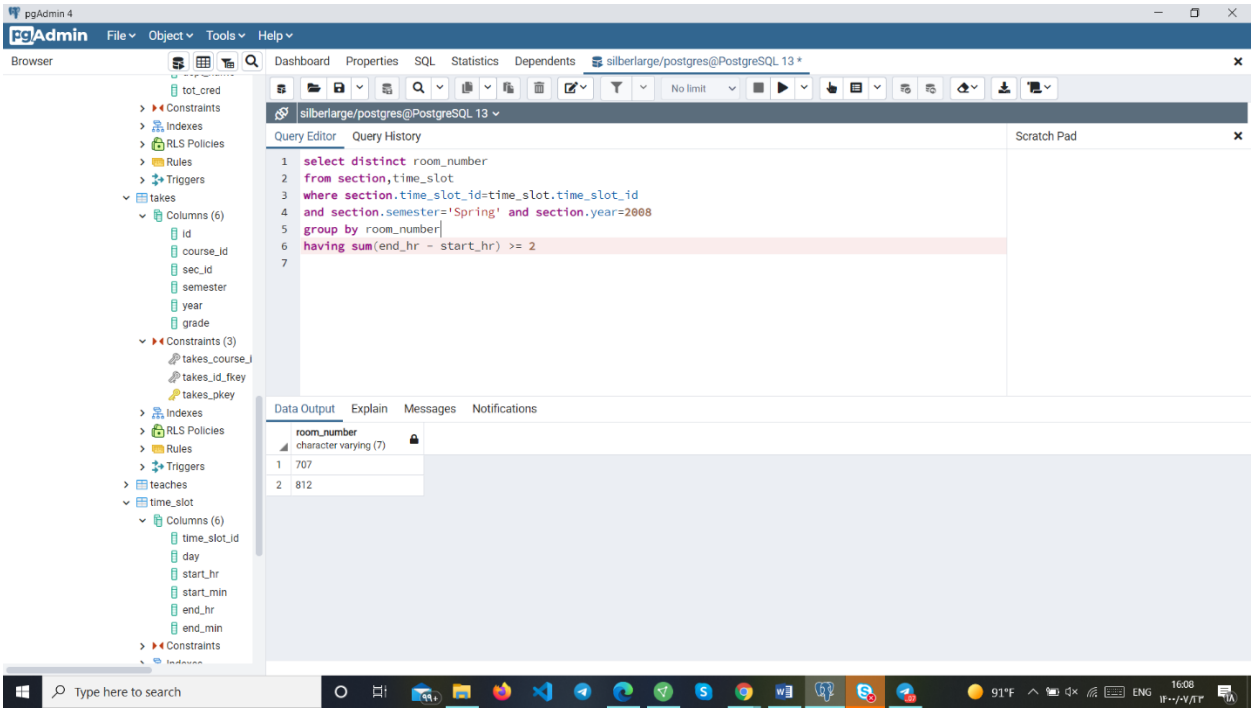
d.

```
select course1.course_id,sum(course2.credits) as sum
from course as course1,prereq,course as course2
where course1.course_id=prereq.course_id
and prereq.prereq_id=course2.course_id
group by course1.course_id
having sum(course2.credits)>4
order by sum desc
```



e.

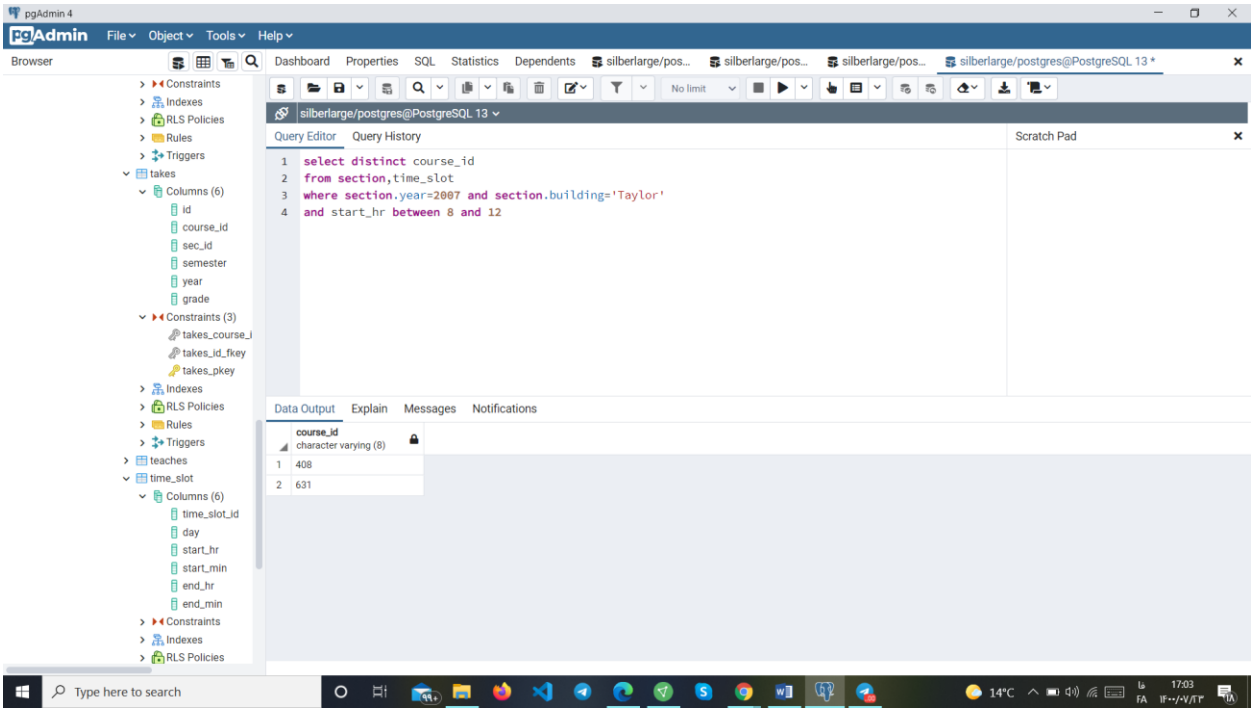
```
select distinct room_number
from section,time_slot
where section.time_slot_id=time_slot.time_slot_id
and section.semester='Spring' and section.year=2008
group by room_number
having sum(end_hr - start_hr) >= 2
```



f.

g.

```
select distinct course_id
from section,time_slot
where section.year=2007 and section.building='Taylor'
and start_hr between 8 and 12
```



h.

select name , sum(credits) as new_calculation

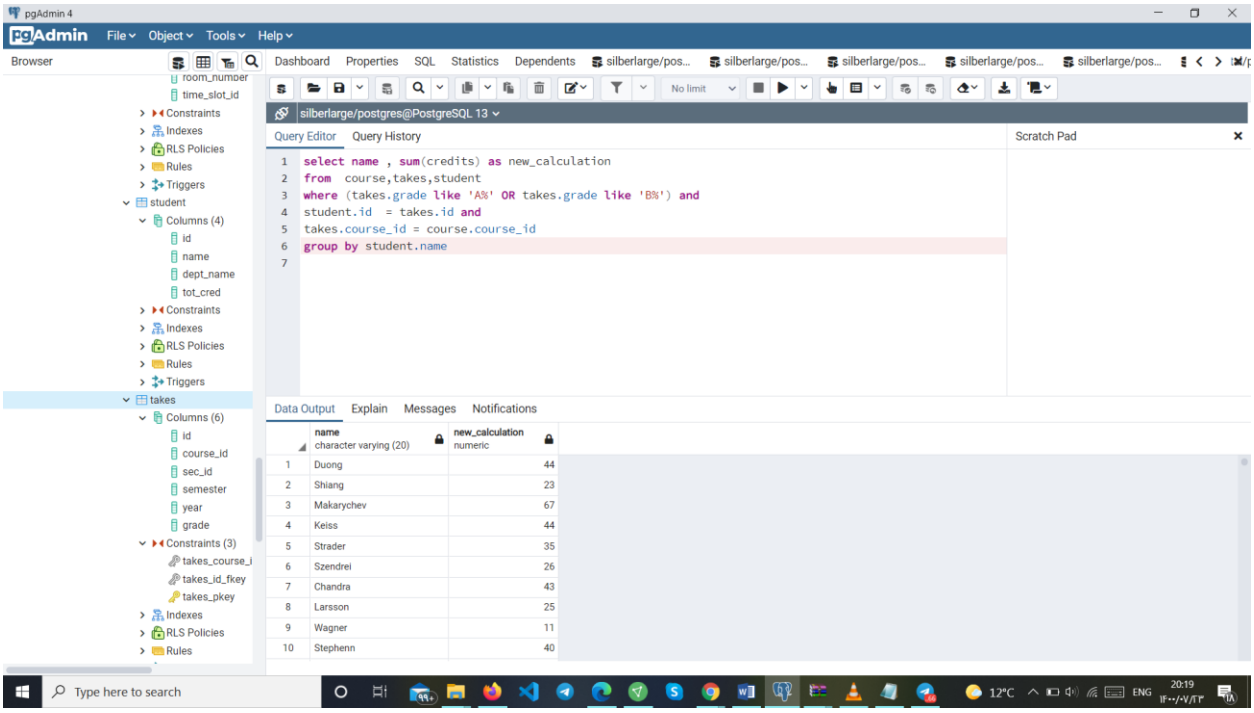
from course,takes,student

where (takes.grade like 'A%' OR takes.grade like 'B%') and

student.id = takes.id and

takes.course_id = course.course_id

group by student.name


pgAdmin 4
pgAdmin
File
Object
Tools
Help
Browser
Dashboard
Properties
SQL
Statistics
Dependents
silberlarge/postgres@PostgreSQL 13
Query Editor
Query History
Scratch Pad
select name , sum(credits) as new_calculation
from course,takes,student
where (takes.grade like 'A%' OR takes.grade like 'B%') and
student.id = takes.id and
takes.course_id = course.course_id
group by student.name
Data Output
Explain
Messages
Notifications
name
character varying (20)
new_calculation
numeric
1 Duong 44
2 Shiang 23
3 Makarychev 67
4 Keiss 44
5 Strader 35
6 Szendrei 26
7 Chandra 43
8 Larsson 25
9 Wagner 11
10 Stephenn 40
Type here to search