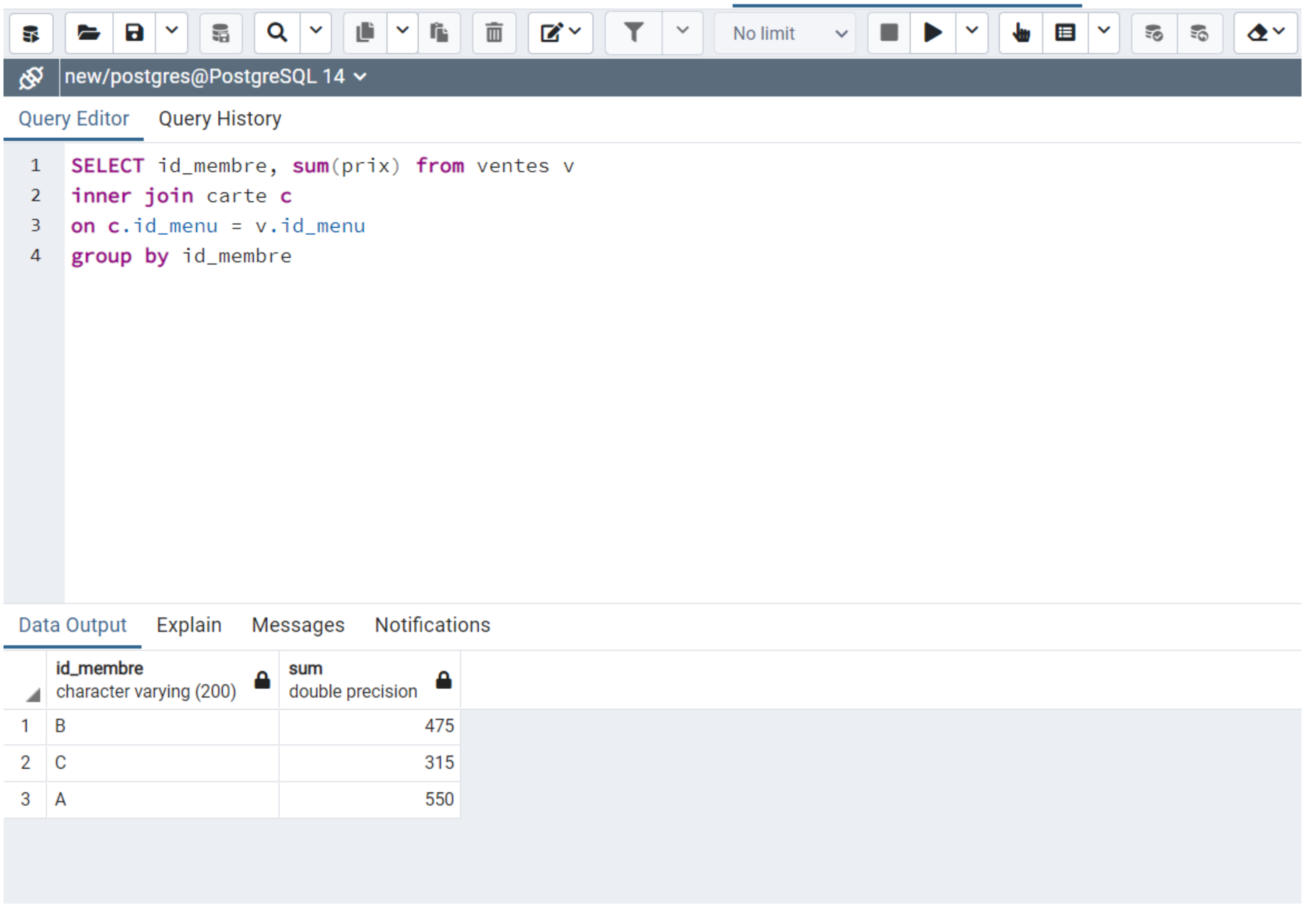
Question 1 :

```
SELECT id_membre, sum(prix) from ventes v

inner join carte c

on c.id_menu = v.id_menu

group by id_membre
```

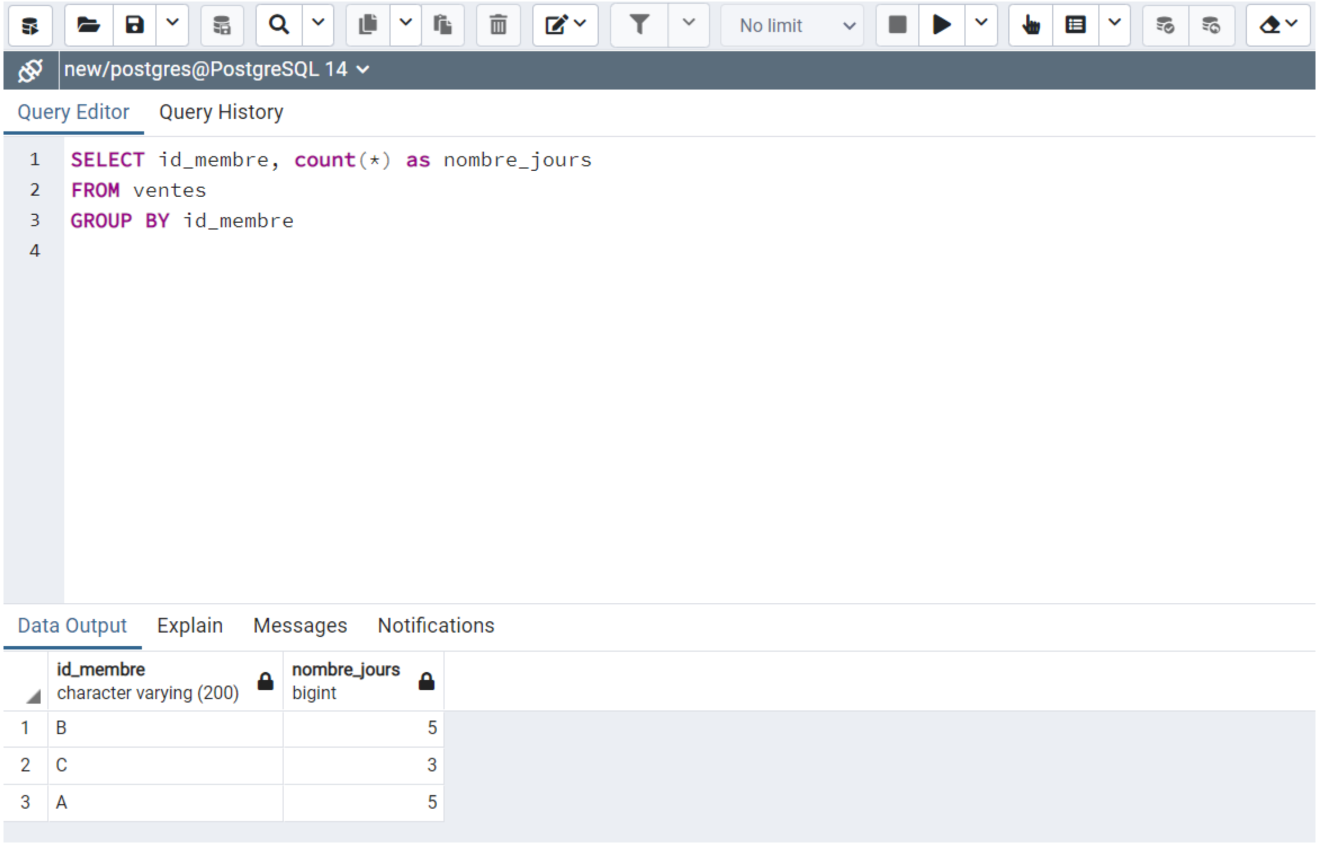


```
SELECT id_membre, sum(prix) from ventes v
inner join carte c
on c.id_menu = v.id_menu
group by id_membre
```

	id_membre character varying (200)	sum double precision
1	B	475
2	C	315
3	A	550

Question 2 :

```
SELECT id_membre, count(*) as nombre_jours

FROM ventes

GROUP BY id_membre
```

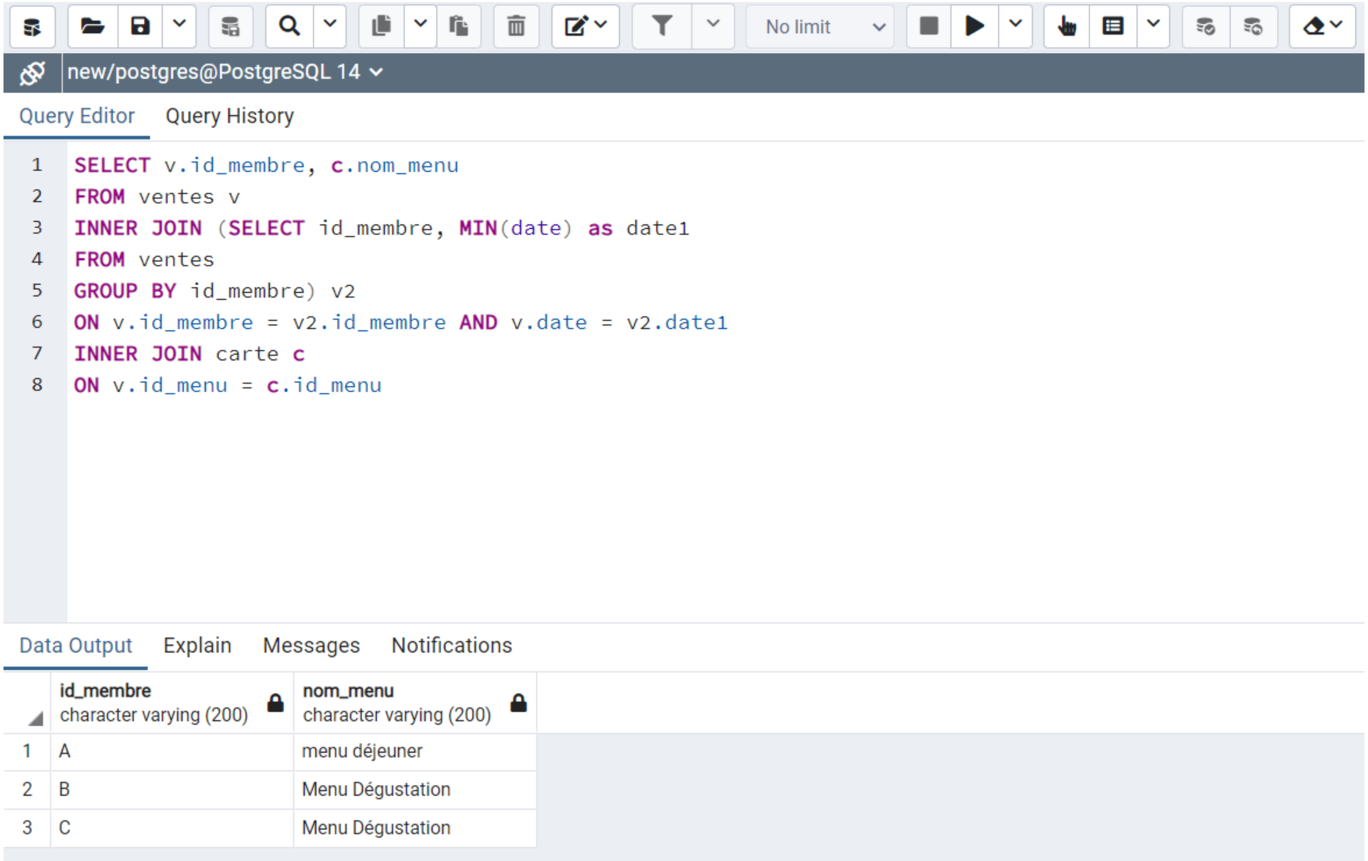


```
SELECT id_membre, count(*) as nombre_jours
FROM ventes
GROUP BY id_membre
```

	id_membre character varying (200)	nombre_jours bigint
1	B	5
2	C	3
3	A	5

Question 3 :

```
SELECT v.id_membre, c.nom_menu

FROM ventes v

INNER JOIN (SELECT id_membre, MIN(date) as date1

FROM ventes

GROUP BY id_membre) v2

ON v.id_membre = v2.id_membre AND v.date = v2.date1

INNER JOIN carte c

ON v.id_menu = c.id_menu
```

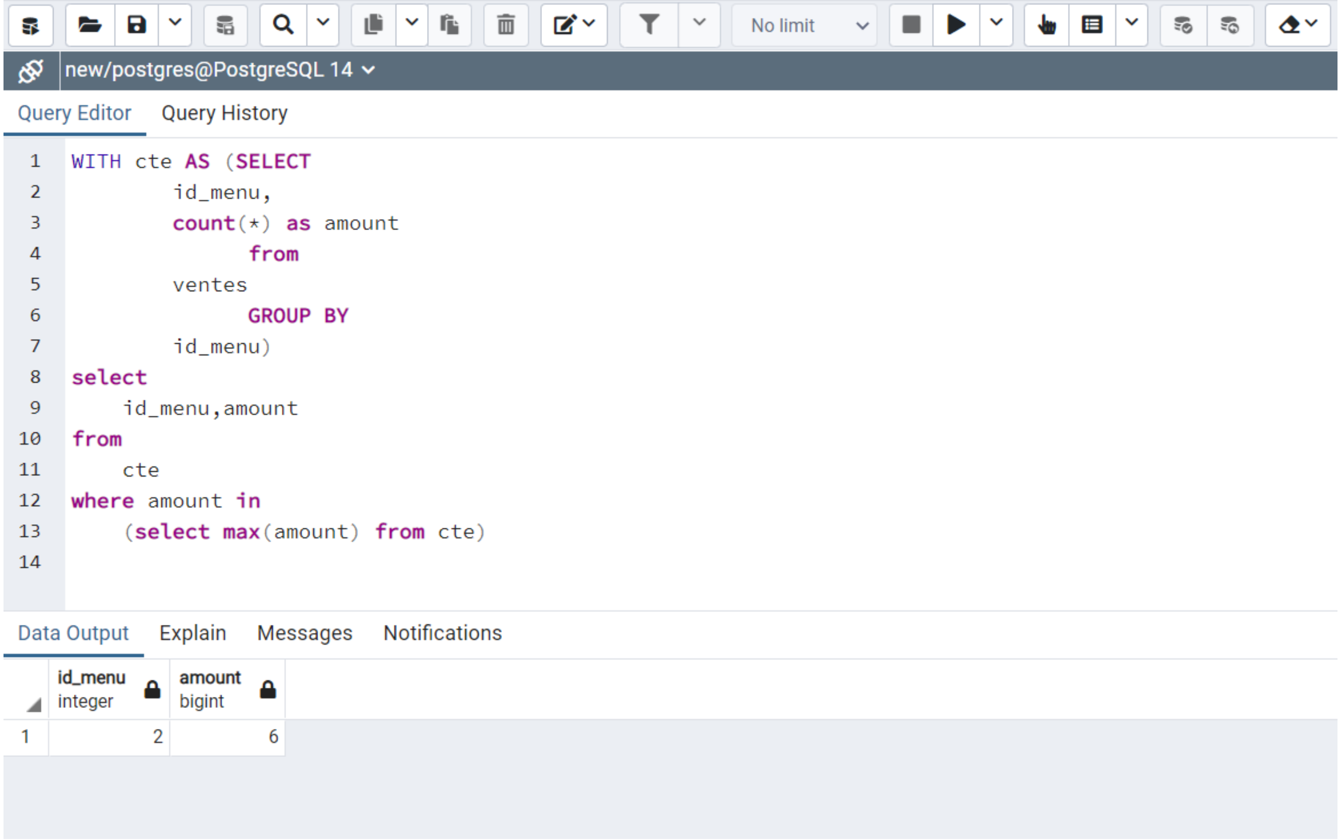


```
SELECT v.id_membre, c.nom_menu
FROM ventes v
INNER JOIN (SELECT id_membre, MIN(date) as date1
FROM ventes
GROUP BY id_membre) v2
ON v.id_membre = v2.id_membre AND v.date = v2.date1
INNER JOIN carte c
ON v.id_menu = c.id_menu
```

	id_membre character varying (200)	nom_menu character varying (200)
1	A	menu déjeuner
2	B	Menu Dégustation
3	C	Menu Dégustation

Question 4 :

```
WITH cte AS (SELECT
                    id_menu,
                    count(*) as amount
                from
                    ventes
                GROUP BY
                    id_menu)
select
          id_menu,amount
from
          cte
where amount in
          (select max(amount) from cte)
```

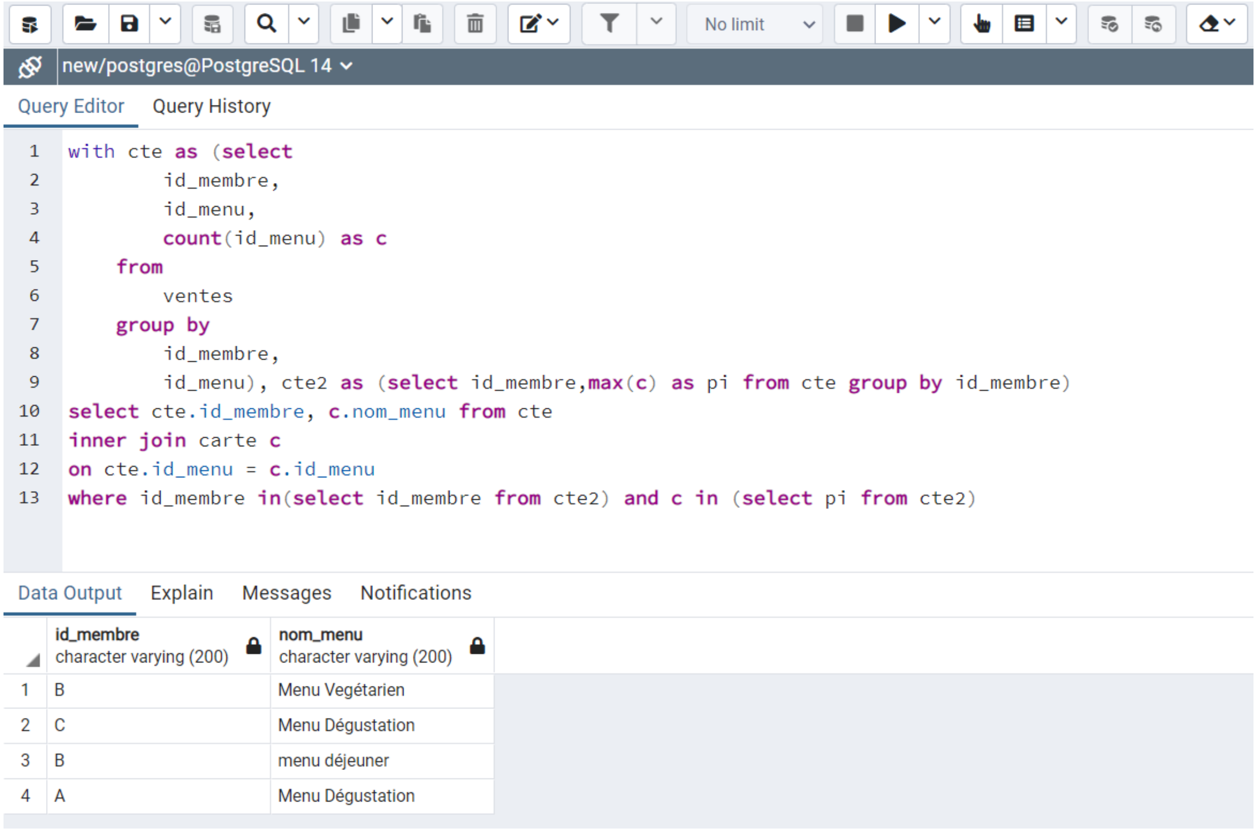


```
WITH cte AS (SELECT
        id_menu,
        count(*) as amount
              from
        ventes
              GROUP BY
        id_menu)
select
    id_menu,amount
from
    cte
where amount in
    (select max(amount) from cte)
```

	id_menu integer	amount bigint
1	2	6

Question 5:

```
with cte as (select
                id_membre,
                id_menu,
                count(id_menu) as c
        from
                ventes
        group by
                id_membre,
                id_menu), cte2 as (select id_membre,max(c) as pi from cte group by id_membre)
select cte.id_membre, c.nom_menu from cte
inner join carte c
on cte.id_menu = c.id_menu
where id_membre in(select id_membre from cte2) and c in (select pi from cte2)
```

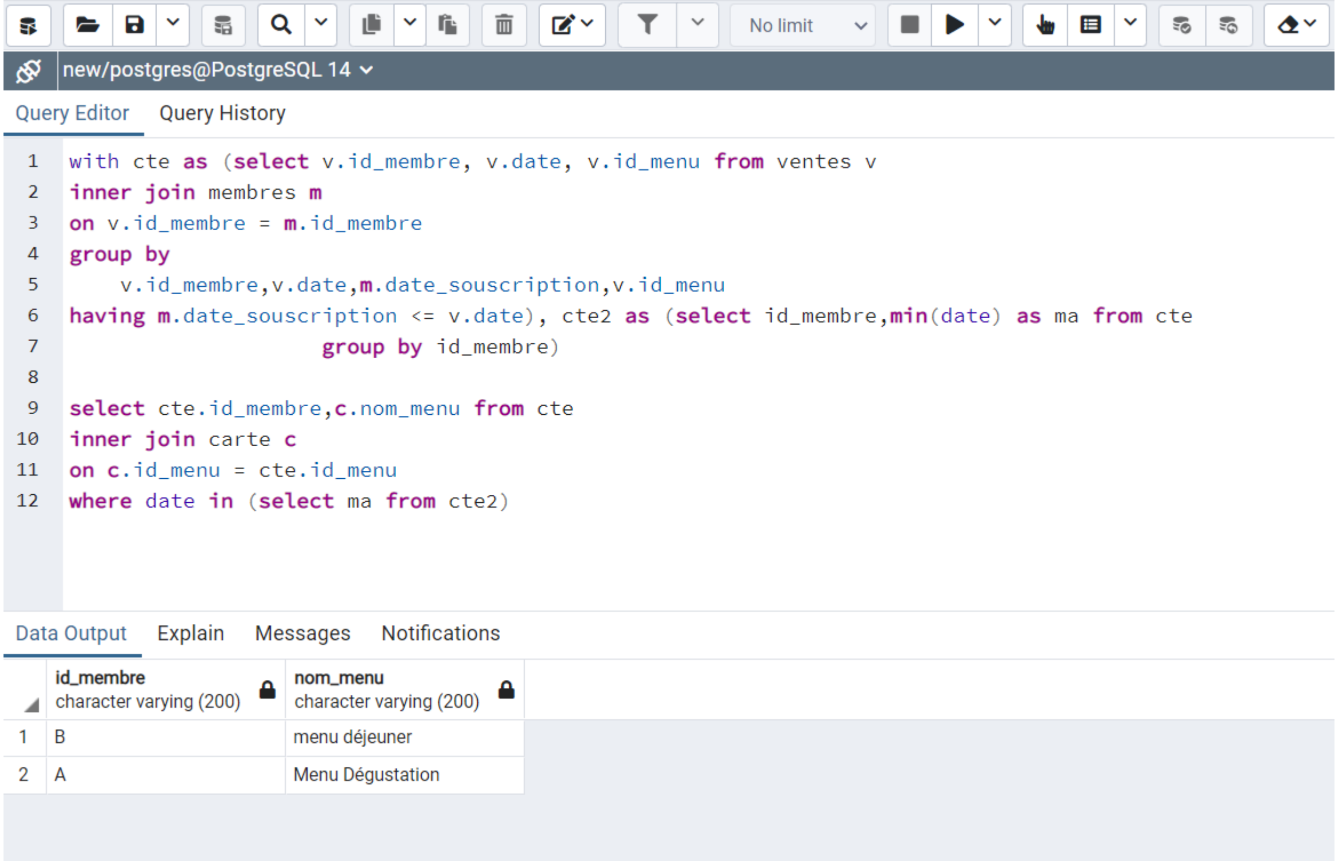


```
with cte as (select
        id_membre,
        id_menu,
        count(id_menu) as c
    from
        ventes
    group by
        id_membre,
        id_menu), cte2 as (select id_membre,max(c) as pi from cte group by id_membre)
select cte.id_membre, c.nom_menu from cte
inner join carte c
on cte.id_menu = c.id_menu
where id_membre in(select id_membre from cte2) and c in (select pi from cte2)
```

	id_membre character varying (200)	nom_menu character varying (200)
1	B	Menu Vegétarien
2	C	Menu Dégustation
3	B	menu déjeuner
4	A	Menu Dégustation

Question 6:

```
with cte as (select v.id_membre, v.date, v.id_menu from ventes v

inner join membres m

on v.id_membre = m.id_membre

group by

        v.id_membre,v.date,m.date_souscription,v.id_menu

having m.date_souscription <= v.date), cte2 as (select id_membre,min(date) as ma from cte

                                        group by id_membre)


select cte.id_membre,c.nom_menu from cte

inner join carte c

on c.id_menu = cte.id_menu

where date in (select ma from cte2)
```

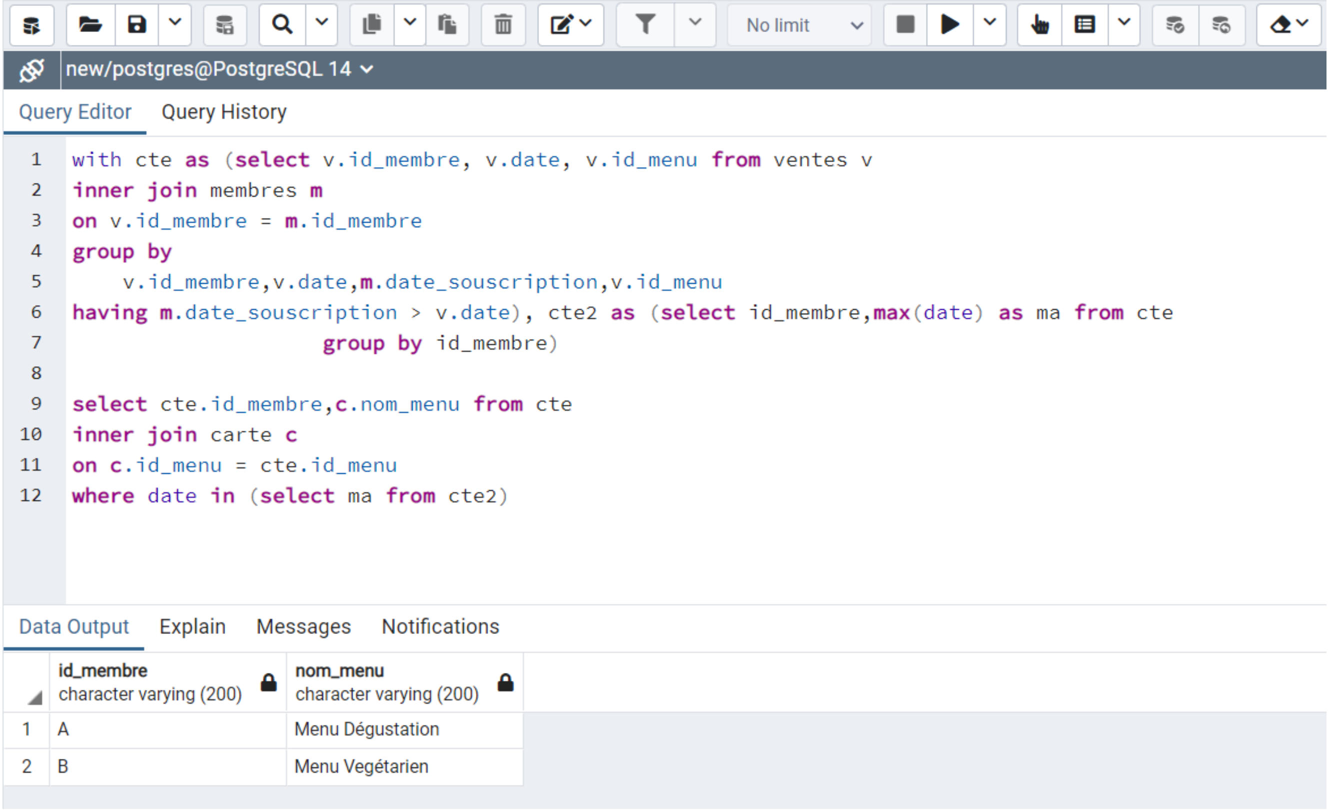


```
with cte as (select v.id_membre, v.date, v.id_menu from ventes v
inner join membres m
on v.id_membre = m.id_membre
group by
    v.id_membre,v.date,m.date_souscription,v.id_menu
having m.date_souscription <= v.date), cte2 as (select id_membre,min(date) as ma from cte
                    group by id_membre)

select cte.id_membre,c.nom_menu from cte
inner join carte c
on c.id_menu = cte.id_menu
where date in (select ma from cte2)
```

	id_membre character varying (200)	nom_menu character varying (200)
1	B	menu déjeuner
2	A	Menu Dégustation

Question 7:

```
with cte as (select v.id_membre, v.date, v.id_menu from ventes v

inner join membres m

on v.id_membre = m.id_membre

group by

        v.id_membre,v.date,m.date_souscription,v.id_menu

having m.date_souscription > v.date), cte2 as (select id_membre,max(date) as ma from cte

                                        group by id_membre)


select cte.id_membre,c.nom_menu from cte

inner join carte c

on c.id_menu = cte.id_menu

where date in (select ma from cte2)
```

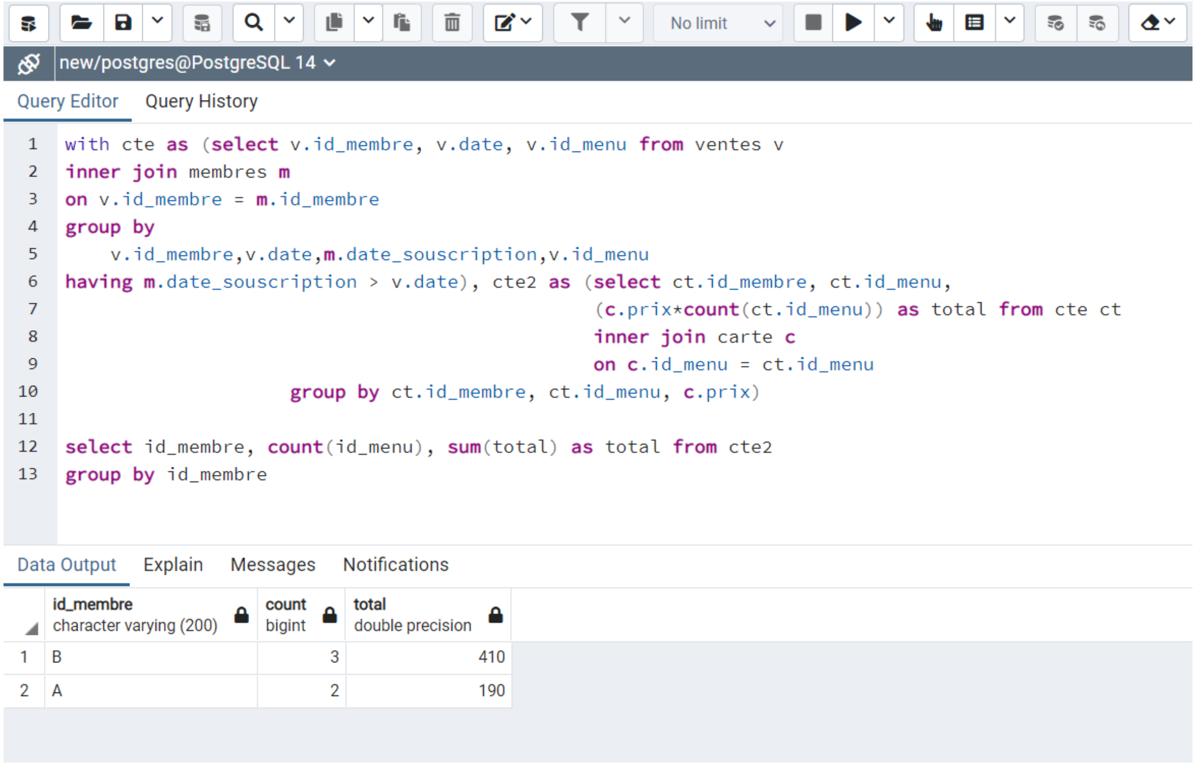


```
with cte as (select v.id_membre, v.date, v.id_menu from ventes v
inner join membres m
on v.id_membre = m.id_membre
group by
    v.id_membre,v.date,m.date_souscription,v.id_menu
having m.date_souscription > v.date), cte2 as (select id_membre,max(date) as ma from cte
                    group by id_membre)

select cte.id_membre,c.nom_menu from cte
inner join carte c
on c.id_menu = cte.id_menu
where date in (select ma from cte2)
```

	id_membre character varying (200)	nom_menu character varying (200)
1	A	Menu Dégustation
2	B	Menu Vegétarien

Question 8:

```
with cte as (select v.id_membre, v.date, v.id_menu from ventes v

inner join membres m

on v.id_membre = m.id_membre

group by

        v.id_membre,v.date,m.date_souscription,v.id_menu

having m.date_souscription > v.date), cte2 as (select ct.id_membre, ct.id_menu,
(c.prix*count(ct.id_menu)) as total from cte ct

                                                        inner join
carte c

                                                        on c.id_menu
= ct.id_menu

                        group by ct.id_membre, ct.id_menu, c.prix)


select id_membre, count(id_menu), sum(total) as total from cte2

group by id_membre
```

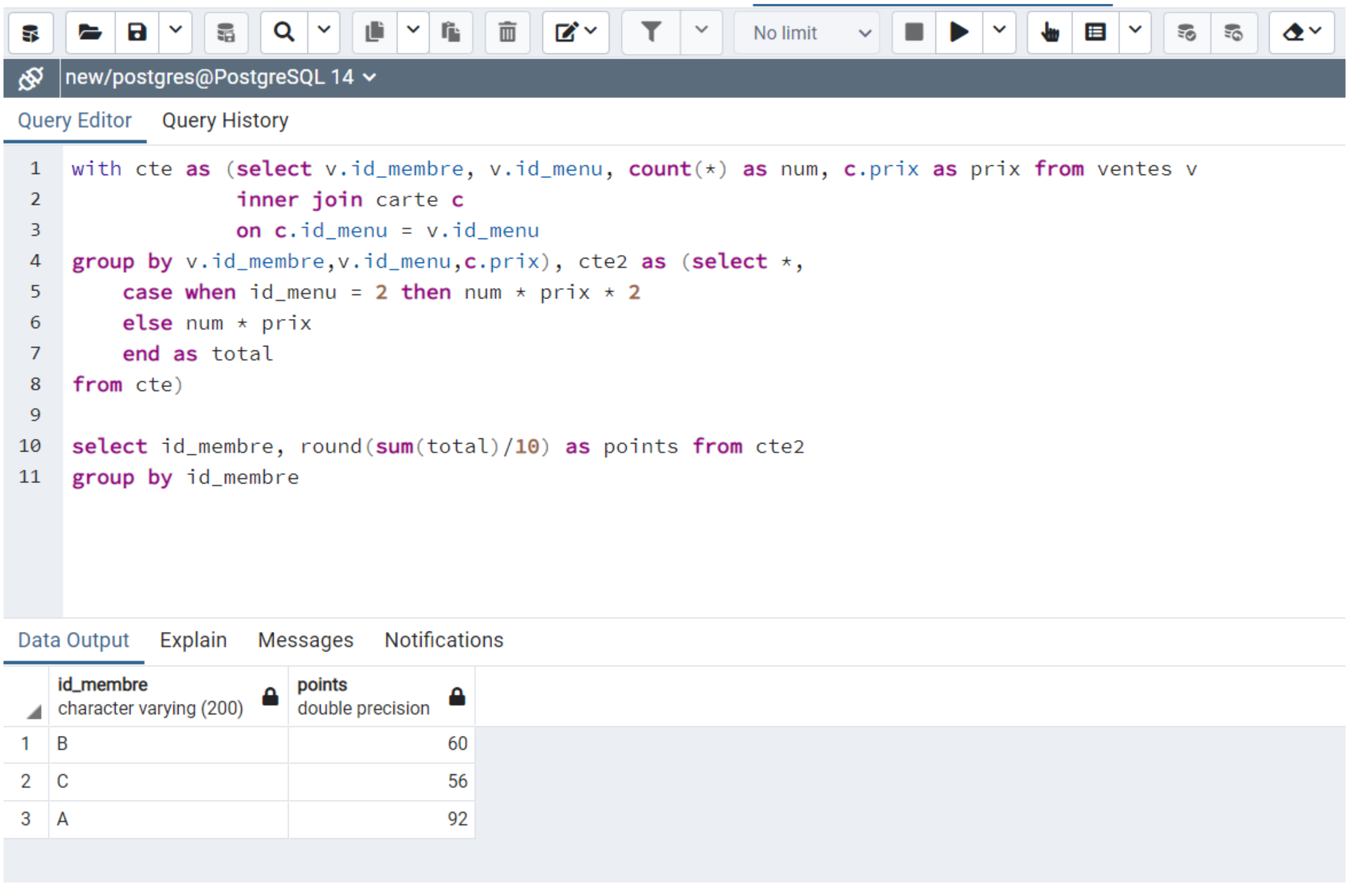


```
with cte as (select v.id_membre, v.date, v.id_menu from ventes v
inner join membres m
on v.id_membre = m.id_membre
group by
    v.id_membre,v.date,m.date_souscription,v.id_menu
having m.date_souscription > v.date), cte2 as (select ct.id_membre, ct.id_menu,
                                              (c.prix*count(ct.id_menu)) as total from cte ct
                                              inner join carte c
                                              on c.id_menu = ct.id_menu
                    group by ct.id_membre, ct.id_menu, c.prix)

select id_membre, count(id_menu), sum(total) as total from cte2
group by id_membre
```

	id_membre character varying (200)	count bigint	total double precision
1	B	3	410
2	A	2	190

Question 9:

```
with cte as (select v.id_membre, v.id_menu, count(*) as num, c.prix as prix from ventes v
                                        inner join carte c
                                        on c.id_menu = v.id_menu
group by v.id_membre,v.id_menu,c.prix), cte2 as (select *,
            case when id_menu = 2 then num * prix * 2
            else num * prix
            end as total
from cte)


select id_membre, round(sum(total)/10) as points from cte2
group by id_membre
```



```
with cte as (select v.id_membre, v.id_menu, count(*) as num, c.prix as prix from ventes v
             inner join carte c
             on c.id_menu = v.id_menu
group by v.id_membre,v.id_menu,c.prix), cte2 as (select *,
    case when id_menu = 2 then num * prix * 2
    else num * prix
    end as total
from cte)

select id_membre, round(sum(total)/10) as points from cte2
group by id_membre
```

	id_membre character varying (200)	points double precision
1	B	60
2	C	56
3	A	92