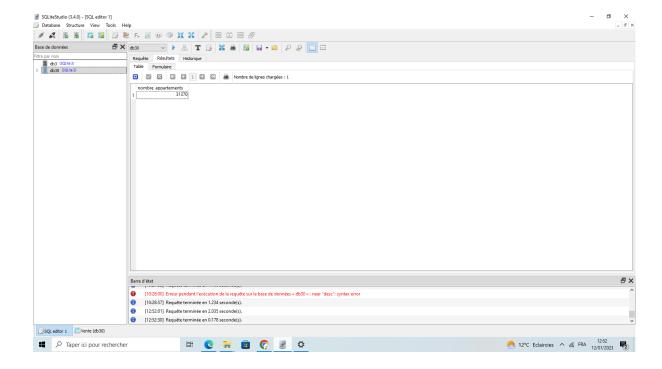
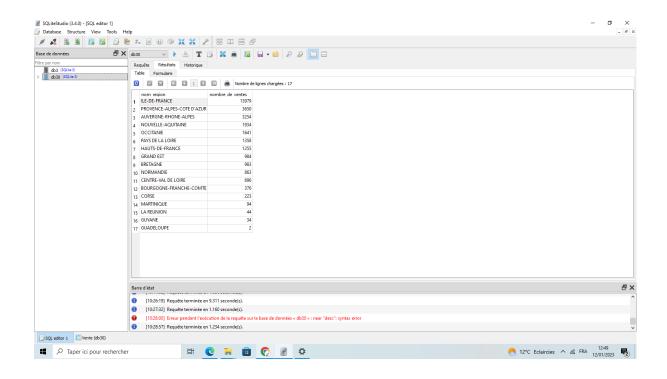
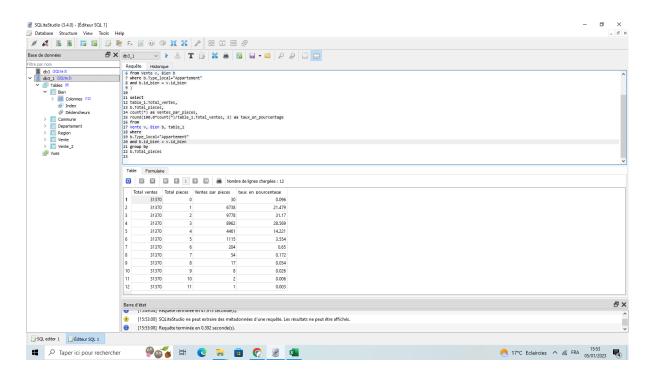
--1 Nombre total d'appartements vendus au 1er semestre 2020 select count(*) as nombre_appartements from Vente v, Bien b where b.id_bien = v.id_bien and v.date>='2020-01-01' and v.date<'2020-07-01' and b.Type_local="Appartement"



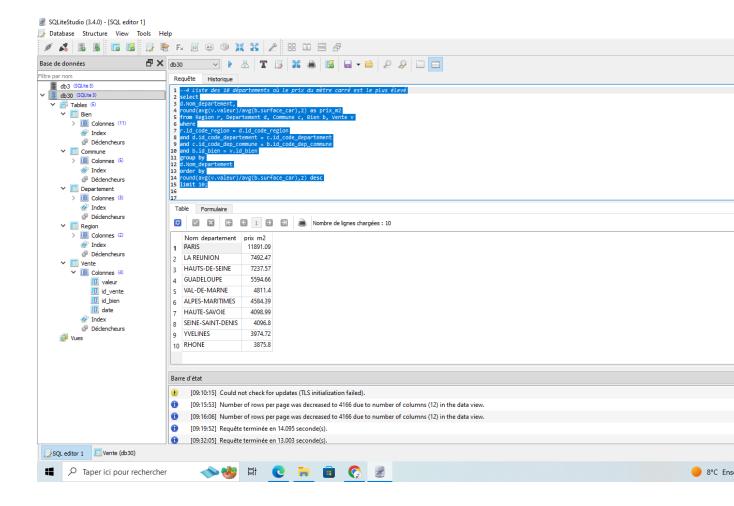
--2 Le nombre de ventes d'appartement par région pour le 1er semestre 2020 select
r.nom_region,
count(v.id_vente) as nombre_de_ventes
from
Region r, Departement d, Commune c, Bien b, Vente v
where
r.id_code_region = d.id_code_region
and d.id_code_departement = c.id_code_departement
and c.id_code_dep_commune = b.id_code_dep_commune
and b.id_bien = v.id_bien
and v.date>='2020-01-01' and v.date<'2020-07-01'
and b.Type_local="Appartement"
group by
r.nom_region
order by count(v.id_vente) desc



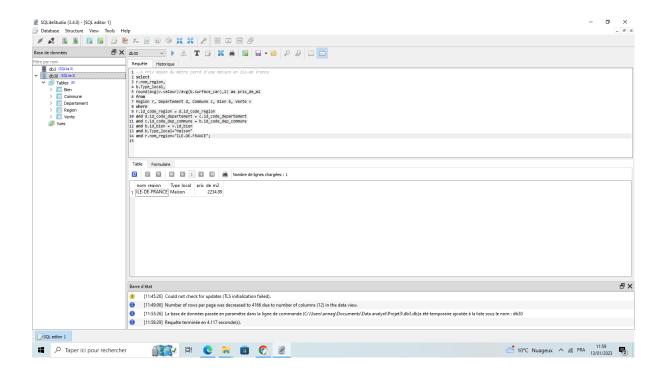
```
--3 Proportion des ventes d'appartement par le nombre des pieces
WITH
table_1 as
(select
count(*) as Total_ventes
from Vente v, Bien b
where b.Type local="Appartement"
and b.id_bien = v.id_bien
)
select
table_1.Total_ventes,
b.Total_pieces,
count(*) as Ventes par pieces,
round(100.0*count(*)/table_1.Total_ventes, 3) as taux_en_pourcentage
Vente v, Bien b, table_1
where
b.Type_local="Appartement"
and b.id_bien = v.id_bien
group by
b.Total_pieces
```



--4 Liste des 10 départements où le prix du mètre carré est le plus élevé select d.Nom_departement, round(avg(v.valeur)/avg(b.surface_car),2) as prix_m2 from Region r, Departement d, Commune c, Bien b, Vente v where r.id_code_region = d.id_code_region and d.id_code_departement = c.id_code_departement and c.id_code_dep_commune = b.id_code_dep_commune and b.id_bien = v.id_bien group by d.Nom_departement order by round(avg(v.valeur)/avg(b.surface_car),2) desc limit 10:



--5 Prix moyen du mètre carré d'une maison en Ile-de France select r.nom_region, b.Type_local, round(avg(v.valeur)/avg(b.surface_car),2) as prix_de_m2 from Region r, Departement d, Commune c, Bien b, Vente v where r.id_code_region = d.id_code_region and d.id_code_departement = c.id_code_departement and c.id_code_dep_commune = b.id_code_dep_commune and b.id_bien = v.id_bien and b.Type_local="Maison" and r.nom_region="ILE-DE-FRANCE";



--6 Liste des 10 appartements les plus chers avec la région et le nombre de mètres carrés select

r.nom region,

b.Surface_car,

v.valeur

from

Region r, Departement d, Commune c, Bien b, Vente v

where

r.id_code_region = d.id_code_region

and d.id_code_departement = c.id_code_departement

and c.id_code_dep_commune = b.id_code_dep_commune

and b.id_bien = v.id_bien

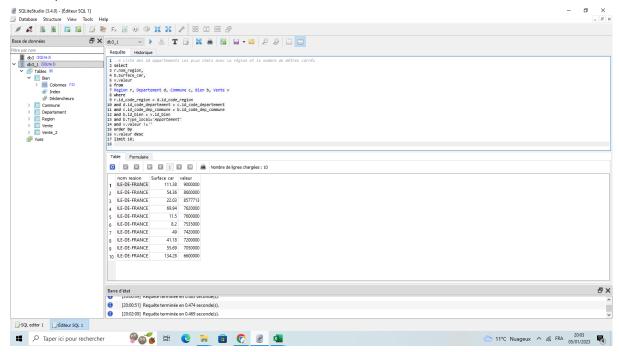
and b.Type_local='Appartement'

and v.valeur !="

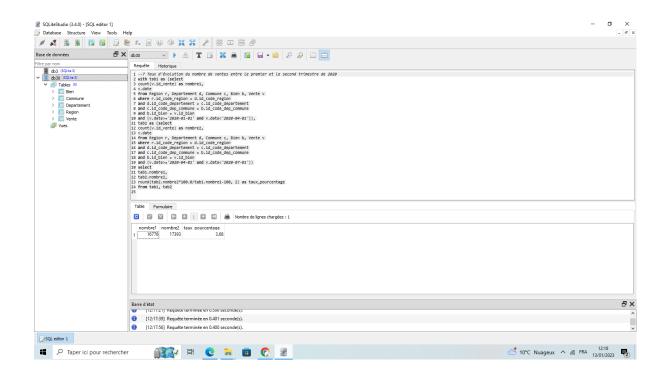
order by

v.valeur desc

limit 10;



--7 Taux d'évolution du nombre de ventes entre le premier et le second trimestre de 2020 with tab1 as (select count(v.id vente) as nombre1, v.date from Region r, Departement d, Commune c, Bien b, Vente v where r.id code region = d.id code region and d.id_code_departement = c.id_code_departement and c.id_code_dep_commune = b.id_code_dep_commune and b.id_bien = v.id_bien and (v.date>='2020-01-01' and v.date<'2020-04-01')), tab2 as (select count(v.id_vente) as nombre2, v.date from Region r, Departement d, Commune c, Bien b, Vente v where r.id_code_region = d.id_code_region and d.id code departement = c.id code departement and c.id_code_dep_commune = b.id_code_dep_commune and b.id_bien = v.id_bien and (v.date>='2020-04-01' and v.date<'2020-07-01')) select tab1.nombre1, tab2.nombre2. round(tab2.nombre2*100.0/tab1.nombre1-100, 2) as taux pourcentage from tab1, tab2



--8 Le classement des régions par rapport au prix au mètre carré des appartements de plus de 4 pièces

select

r.nom_region,

round(avg(v.valeur)/avg(b.Surface_car), 2) as prix_metre2

from Region r, Departement d, Commune c, Bien b, Vente v

where r.id_code_region = d.id_code_region

and d.id code departement = c.id code departement

and c.id_code_dep_commune = b.id_code_dep_commune

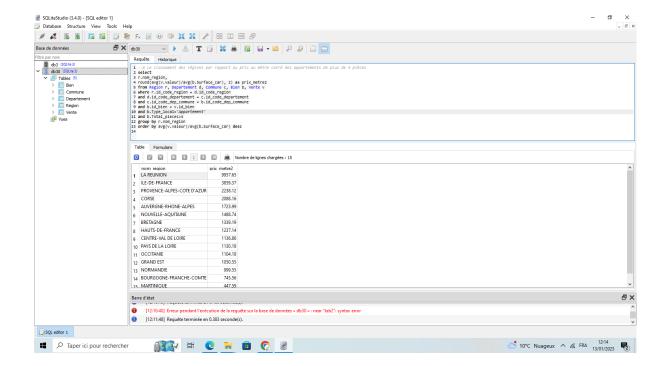
and b.id bien = v.id bien

and b.Type_local='Appartement'

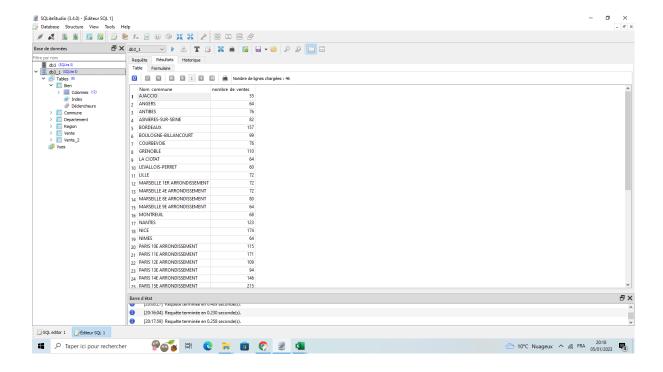
and b.Total_pieces>4

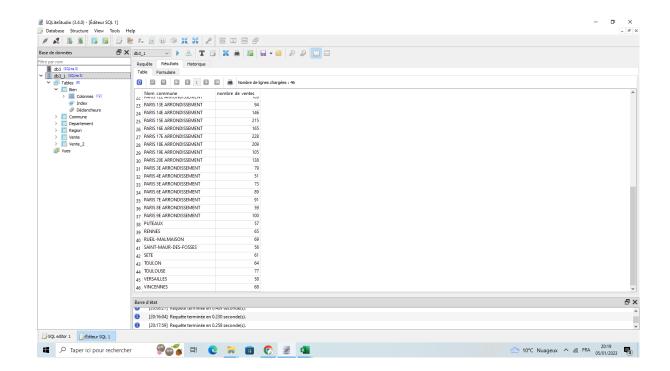
group by r.nom_region

order by avg(v.valeur)/avg(b.Surface_car) desc

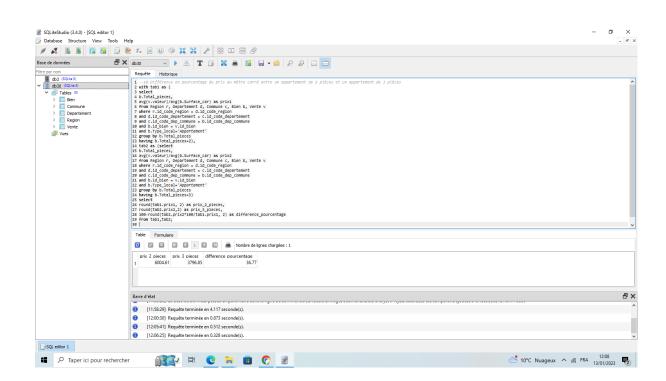


--9 Liste des communes ayant eu au moins 50 ventes au 1er trimestre select c.Nom_commune, count(v.id_vente) as nombre_de_ventes from Region r, Departement d, Commune c, Bien b, Vente v where r.id_code_region = d.id_code_region and d.id_code_departement = c.id_code_departement and c.id_code_dep_commune = b.id_code_dep_commune and b.id_bien = v.id_bien and v.date >= '2020-01-01' and v.date < '2020-04-01' group by c.Nom_commune having count(v.id_vente) >= 50;

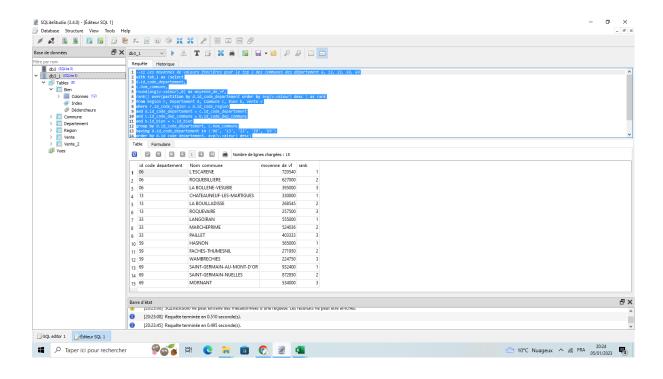




```
--10 Différence en pourcentage du prix au mètre carré entre un appartement de 2 pièces et
un appartement de 3 pièces
with tab1 as (
select
b.Total pieces,
avg(v.valeur)/avg(b.Surface car) as prix1
from Region r, Departement d, Commune c, Bien b, Vente v
where r.id code region = d.id code region
and d.id_code_departement = c.id_code_departement
and c.id_code_dep_commune = b.id_code_dep_commune
and b.id_bien = v.id_bien
and b.Type_local='Appartement'
group by b.Total_pieces
having b.Total_pieces=2),
tab2 as (select
b.Total_pieces,
avg(v.valeur)/avg(b.Surface_car) as prix2
from Region r, Departement d, Commune c, Bien b, Vente v
where r.id_code_region = d.id_code_region
and d.id_code_departement = c.id_code_departement
and c.id_code_dep_commune = b.id_code_dep_commune
and b.id_bien = v.id_bien
and b.Type_local='Appartement'
group by b.Total_pieces
having b.Total_pieces=3)
select
round(tab1.prix1, 2) as prix_2_pieces,
round(tab2.prix2,2) as prix_3_pieces,
100-round(tab2.prix2*100/tab1.prix1, 2) as difference_pourcentage
from tab1,tab2;
```



--11 Les moyennes de valeurs foncières pour le top 3 des communes des département 6, 13, 33, 59, 69 with tab 1 as (select d.id_code_departement, c.Nom commune, round(avg(v.valeur),0) as movenne de vf, rank() over(partition by d.id_code_departement order by avg(v.valeur) desc) as rank from Region r, Departement d, Commune c, Bien b, Vente v where r.id_code_region = d.id_code_region and d.id code departement = c.id code departement and c.id_code_dep_commune = b.id_code_dep_commune and b.id_bien = v.id_bien group by d.id_code_departement, c.Nom_commune having d.id_code_departement in ('06', '13', '33', '59', '69') order by d.id code departement, avg(v.valeur) desc) select * from tab_1 where rank<=3;



--12 Les 20 communes avec le plus de transactions pour 1000 habitants pour les communes qui dépassent les 10000 habitants

select

c.Nom_commune,

round(count(v.id_vente)*1000.0/c.Population_totale, 2) as trans_par_1000hbtns

from Region r, Departement d, Commune c, Bien b, Vente v

where r.id_code_region = d.id_code_region

and d.id code departement = c.id code departement

and c.id_code_dep_commune = b.id_code_dep_commune

and b.id bien = v.id bien

and c.Population_totale>10000

group by c.Nom_commune

order by count(v.id_vente)*1000/c.Population_totale desc

limit 20;

