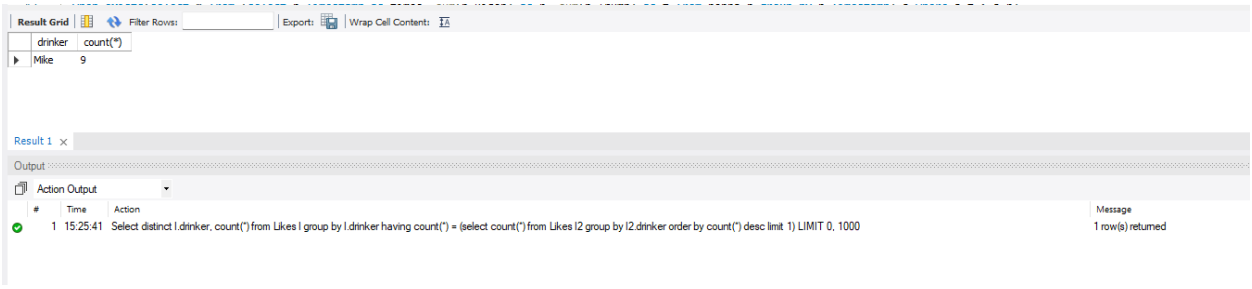
1. Drinkers who like the most beers (highest number of beers)
Select distinct l.drinker, count(*) from Likes l group by l.drinker having count(*) = (select count(*) from Likes l2 group by l2.drinker order by count(*) desc limit 1);

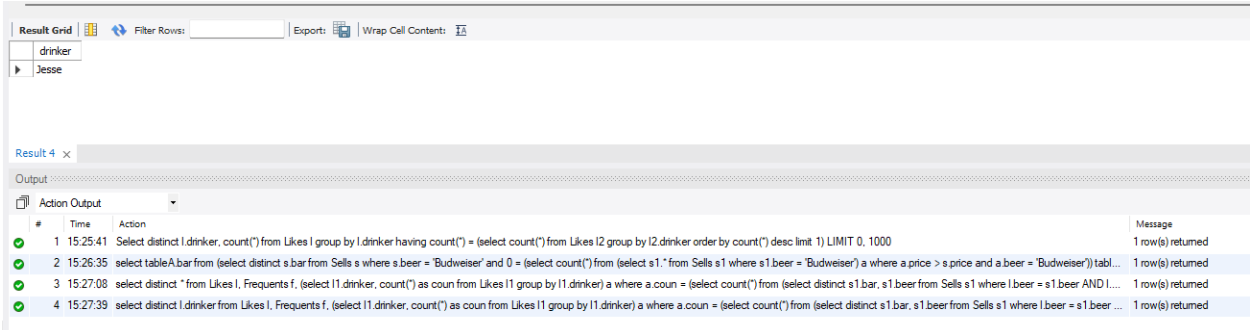


2. Bars which sell most expensive Blue Moon and are not frequented by Gunjan

select tableA.bar from (select distinct s.bar from Sells s where s.beer = 'Budweiser' and 0 = (select count(*) from (select s1.* from Sells s1 where s1.beer = 'Budweiser') a where a.price > s.price and a.beer = 'Budweiser')) tableA join (select distinct f.bar from Frequents f where f.bar != (select f1.bar from Frequents f1 where f1.drinker = 'Gunjan')) tableB on tableA.bar = tableB.bar;

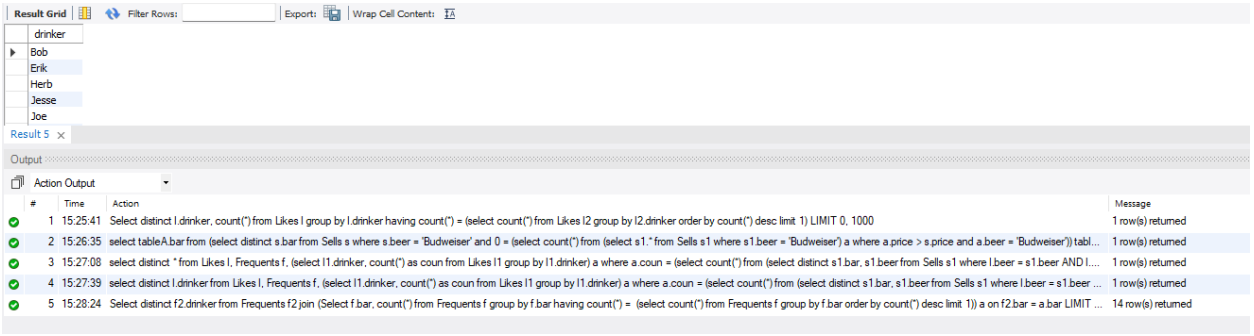
3. Drinkers who frequent only bars which serve all beers they like

select distinct l.drinker from Likes l, Frequents f, (select l1.drinker, count(*) as coun from Likes l1 group by l1.drinker) a where a.coun = (select count(*) from (select distinct s1.bar, s1.beer from Sells s1 where l.beer = s1.beer AND l.drinker = f.drinker AND f.bar = s1.bar) b group by b.bar) AND a.drinker = l.drinker;



4. Drinkers who frequent most popular bar (the one with highest count of drinkers)

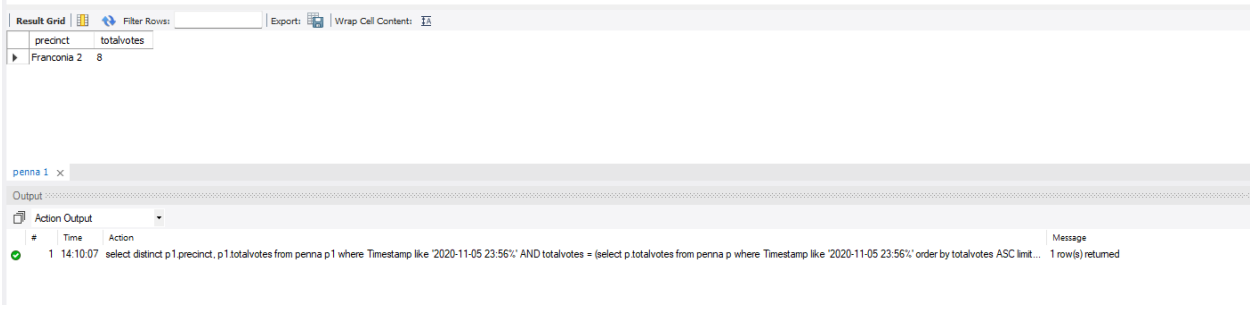
Select distinct f2.drinker from Frequents f2 join (Select f.bar, count(*) from Frequents f group by f.bar having count(*) = (select count(*) from Frequents f group by f.bar order by count(*) desc limit 1)) a on f2.bar = a.bar;



5 Precinct(s) which collected the least number of total votes by end of day of November 5th 2020

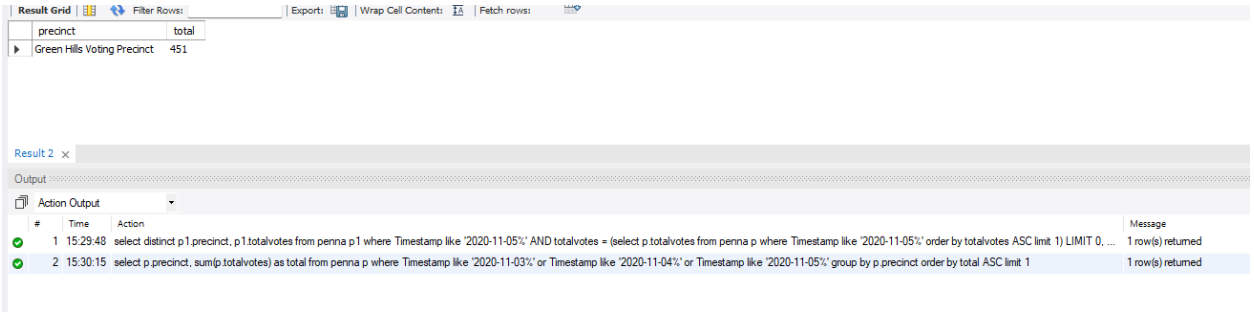
Two approches depend on my understaning of this question
first one: total votes only in day of November 5th 2020

select distinct p1.precinct, p1.totalvotes from penna p1 where Timestamp like '2020-11-05 23:56%' AND totalvotes = (select p.totalvotes from penna p where Timestamp like '2020-11-05 23:56%' order by totalvotes ASC limit 1);



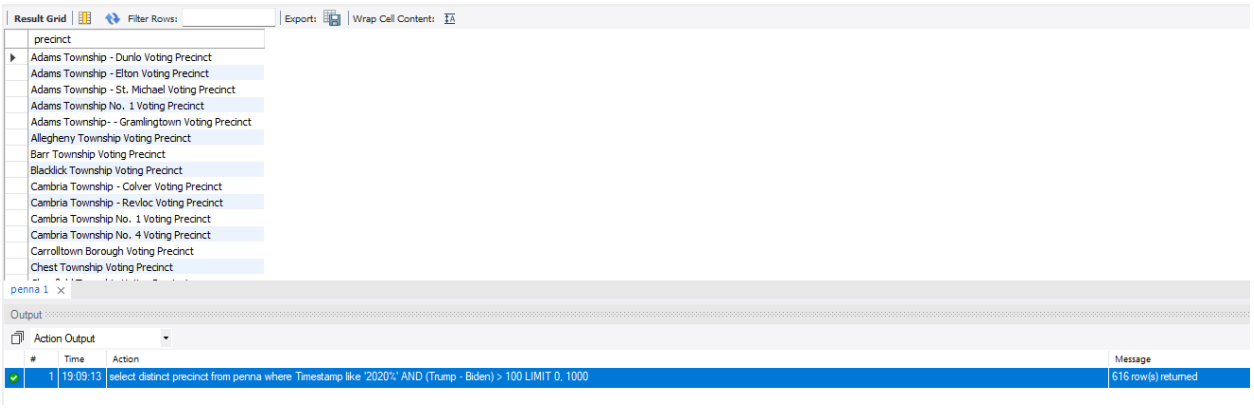
second one: total votes before and include day of November 5th 2020

select p.precinct, sum(p.totalvotes) as total from penna p where Timestamp like '2020-11-03%' or Timestamp like '2020-11-04%' or Timestamp like '2020-11-05%' group by p.precinct order by total ASC limit 1;



6. Which precincts did Trump win by more than 100 votes in 2020

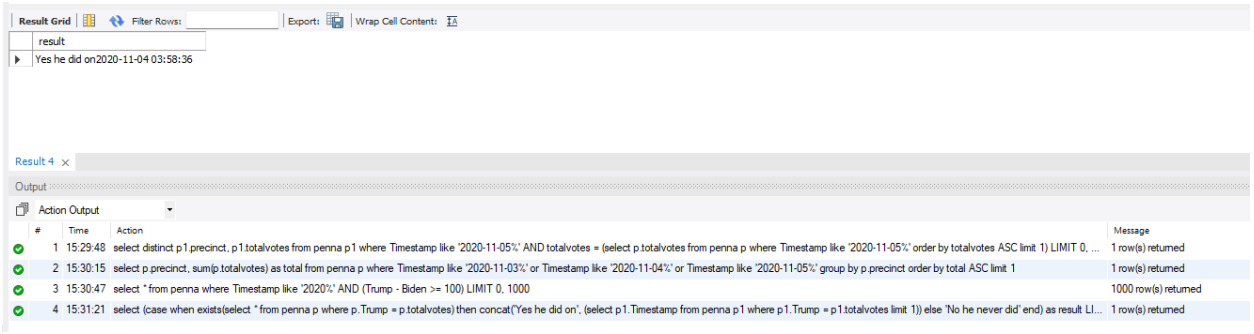
select distinct precinct from penna where Timestamp like '2020%' AND (Trump - Biden) > 100;



7. Has Trump ever led the total vote (for any of the timestamps)? (Return "Yes he did on <timestamp>" or "No he never did".

Two approches depend on my understaning of this question
first one: "ever led the total vote" may understand as "has trump won all the vote in a certain timestamp that biden won 0 vote"

```
select (case
when exists(select * from penna p where p.Trump = p.totalvotes)
then concat('Yes he did on', (select p1.Timestamp from penna p1 where p1.Trump =
p1.totalvotes limit 1))
else 'No he never did'
end) as result;
```



#second one: it may understand as "have the sum of trump's vote bigger than the sum of biden's vote in a certain timestamp"

```
select (case
when exists(select * from (select p.Timestamp as times, sum(p.Biden) as b, sum(p.Trump) as t from penna p group by p.Timestamp) a where a.t > a.b)
then concat('Yes he did on', (select b.times from (select p.Timestamp as times, sum(p.Biden) as b, sum(p.Trump) as t from penna p group by p.Timestamp) b where b.t > b.b))
else 'No he never did'
end) as result;
```