-- to select everything from the census11 table

SELECT \* FROM port1.census11;

-- to selcet evrything from the cen11lit table

SELECT \* FROM port1.cen11lit;

-- to count the number of items in census11 table

select count(\*) as districtcount from port1.census11;

-- to count the number of items in cen11lit table

select count(\*) as licount from port1.cen11lit;

-- to view only those records from Jharkhand and bihar

select \* from port1.census11 where State in ("Jharkhand","Bihar") order by State desc;

-- to calculate the entire population

SELECT sum(Population) as total\_population FROM port1.census11;

-- to view the statewise average growth rate

select State,avg(Growth) as average\_growth from port1.census11 group by State;

-- to calculate the statewise sex ratio and arrange in. descending order

select State,round(avg(Sexratio),0) as avg\_sex\_ratio from port1.census11 group by State order by avg\_sex\_ratio desc;

-- to calculate statewise average literacy rate

select State,avg(Literacy) as avg\_lit\_rate from port1.census11 group by State having avg\_lit\_rate>90 order by avg\_lit\_rate desc;

-- to find the top 3 states with the highest growth rate

select State,avg(Growth) as average\_growth from port1.census11 group by State order by average\_growth desc limit 0,3;

-- to find top 3 states with the least growth rate

select State,avg(Growth) as average\_growth from port1.census11 group by State order by average\_growth limit 0,3;

-- to create a **temporary table** of top 3 states with highest growth rate

drop table if exists port1.top3;

CREATE TABLE port1.top3 as select State,avg(Growth) as average\_growth from port1.census11 group by State order by average\_growth desc limit 0,3;

-- to create a temporary table of top 3 states with lowest growth rate

drop table if exists port1.bottom3;

CREATE TABLE port1.bottom3 as select State,avg(Growth) as average\_growth from port1.census11 group by State order by average\_growth limit 0,3;

-- to combine first 3 and last 3 states based on growth rates

select \* from(select State,avg(Growth) as average\_growth from port1.census11 group by State order by average\_growth desc limit 0,3) a

union

select \* from(select State,avg(Growth) as average\_growth from port1.census11 group by State order by average\_growth limit 0,3) b;

-- to filter out the states starting with 'A' or 'B'

select distinct State from port1.census11 where State like "A%" or State like "B%";

-- filter states that ends with 'D'

select distinct State from port1.census11 where State like "%D";

-- to join the 2 tables

select a.State,a.Population,a.Sexratio/1000 as sex\_ratio,b.Literacy from port1.census11new a inner join port1.cen11lit b on a.State=b.State;

-- to calculate the number of males and females

select State,District,Population,Sexratio,round((Population/(Sexratio/1000+1)),0) as males,round(Population-(Population/((Sexratio/1000)+1)),0) as females from port1.census11new;

-- to calculate number of males and females in each state

select d.State,sum(d.males) as total\_males,sum(d.females) as total\_females from (select State,District,Population,Sexratio,round((Population/(Sexratio/1000+1)),0) as males,round(Population-(Population/((Sexratio/1000)+1)),0) as females from port1.census11new) d group by d.State;

-- to calculate the literate and illiterate population on a state level

select State,round((k.Literacy/100)\*k.Population,0) as literate\_population,round(k.population-((k.Literacy/100)\*k.Population),0) as illterarte\_population from (select a.State,a.Population,a.Sexratio/1000 as sex\_ratio,b.Literacy from port1.census11new a inner join port1.cen11lit b on a.State=b.State) k;

-- population from previous census statewise

select State,sum(Population) as state\_population,round(sum(Population\*(1-(Growth/100))),0) as previous\_population from port1.census11new group by State;

-- total populatiion in current and previous census11

select sum(l.state\_population) as 2011\_population,sum(l.previous\_population) as previous\_popu from(select State,sum(Population) as state\_population,round(sum(Population\*(1-(Growth/100))),0) as previous\_population from port1.census11new group by State) l;

-- window functions

-- output top 3 districts from each state with the highest literacy rate

select m.\* from (select State,District,Literacy,rank() over(partition by State order by Literacy desc) rnk from port1.census11new) m where m.rnk in(1,2,3) order by State;