**SOLUTIONS**

**Q1. Display the states, gender affected and the confirmed cases in their respective states where confirmed cases are more than 100**

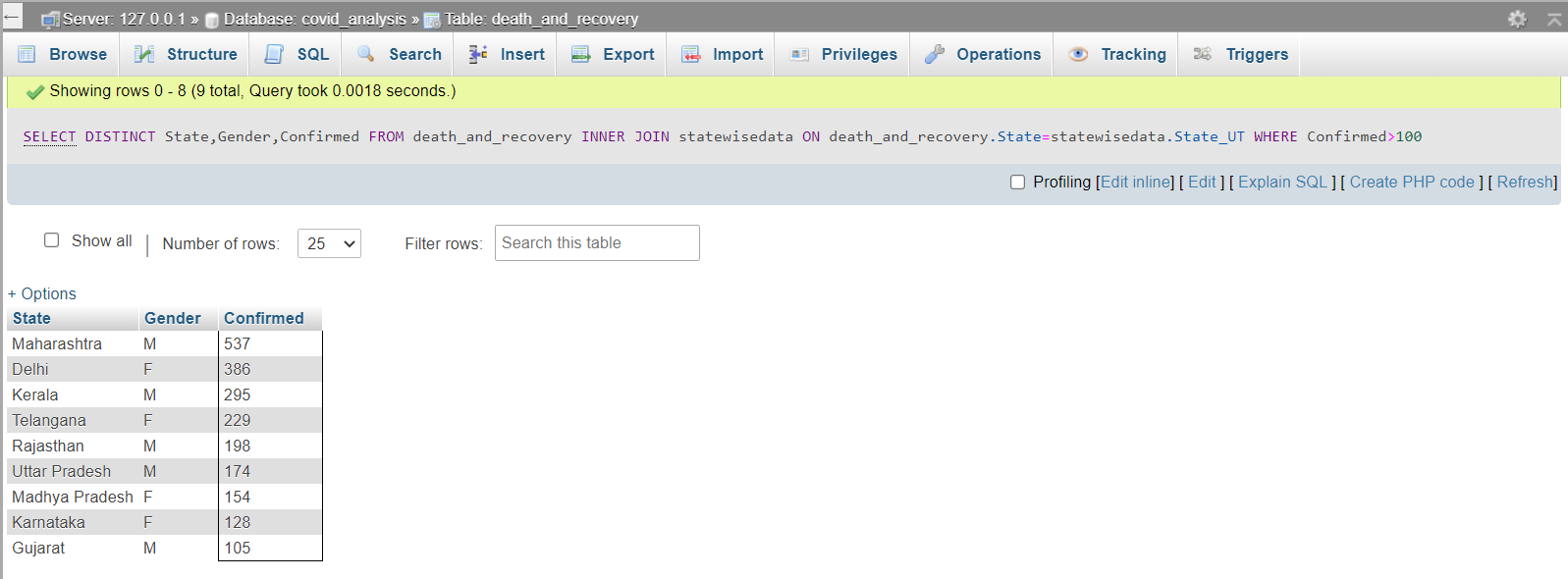
SELECT DISTINCT State, Gender, Confirmed

FROM death\_and\_recovery

INNER JOIN statewisedata

ON death\_and\_recovery.State = statewisedata.State\_UT

WHERE Confirmed>100;



**Q2. Display the states which collected more than 1000 samples in day.**

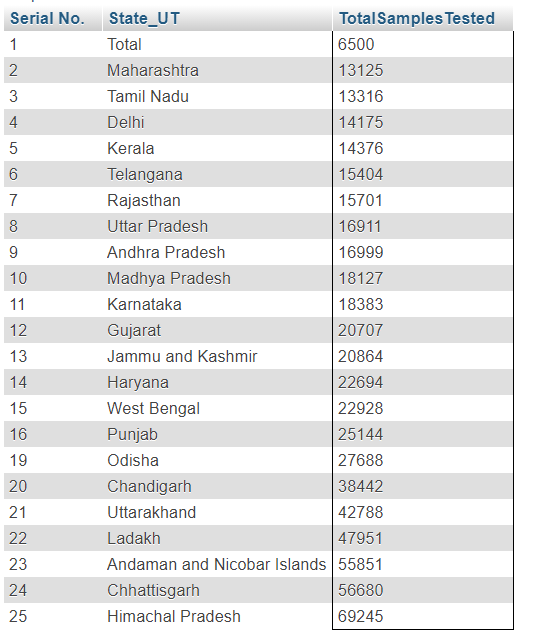
SELECT statewisedata.sno as 'Serial No.', statewisedata.State\_UT, icmrtestingdata.TotalSamplesTested

FROM icmrtestingdata

RIGHT join statewisedata

on statewisedata.sno = icmrtestingdata.sno

WHERE icmrtestingdata.TotalSamplesTested>1000;



**Q3. Retrieve the state with maximum population, their density per sq km and group by descending order with respect to population**

SELECT Rank, State\_UT, Population, Density\_per\_sqkm

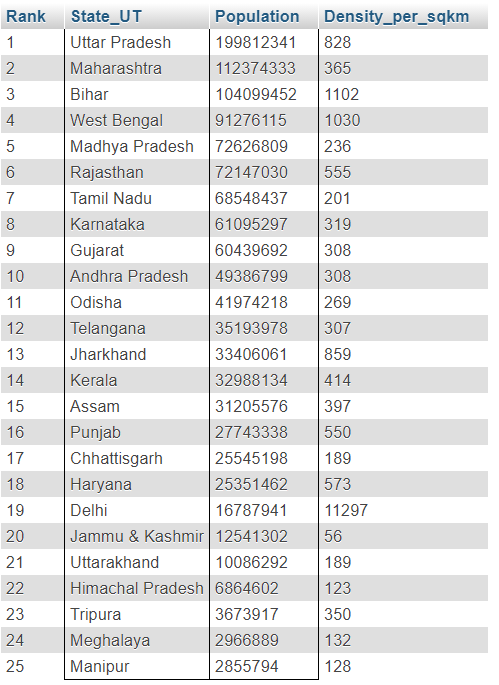
FROM populationdistribution\_2011census\_

WHERE (State\_UT, Population) IN

(SELECT State\_UT, MAX(Population)

FROM populationdistribution\_2011census\_

GROUP BY Population);

****

**Q4. Display the hospital beds along with their location where patients have recovered from covid-19 and those beds are made available to the needy patients waiting in the queue to get admitted.**

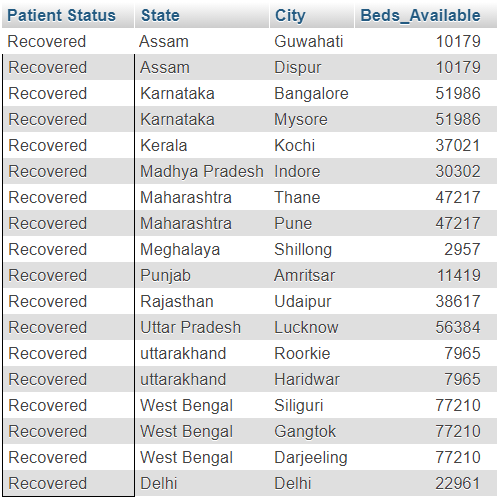
SELECT death\_and\_recovery.Patient\_status as 'Patient Status', death\_and\_recovery.State, death\_and\_recovery.City, hospitalbeds.Beds\_Available

FROM death\_and\_recovery

RIGHT join hospitalbeds

ON death\_and\_recovery.State = hospitalbeds.State\_UT

WHERE death\_and\_recovery.Patient\_status = 'Recovered';

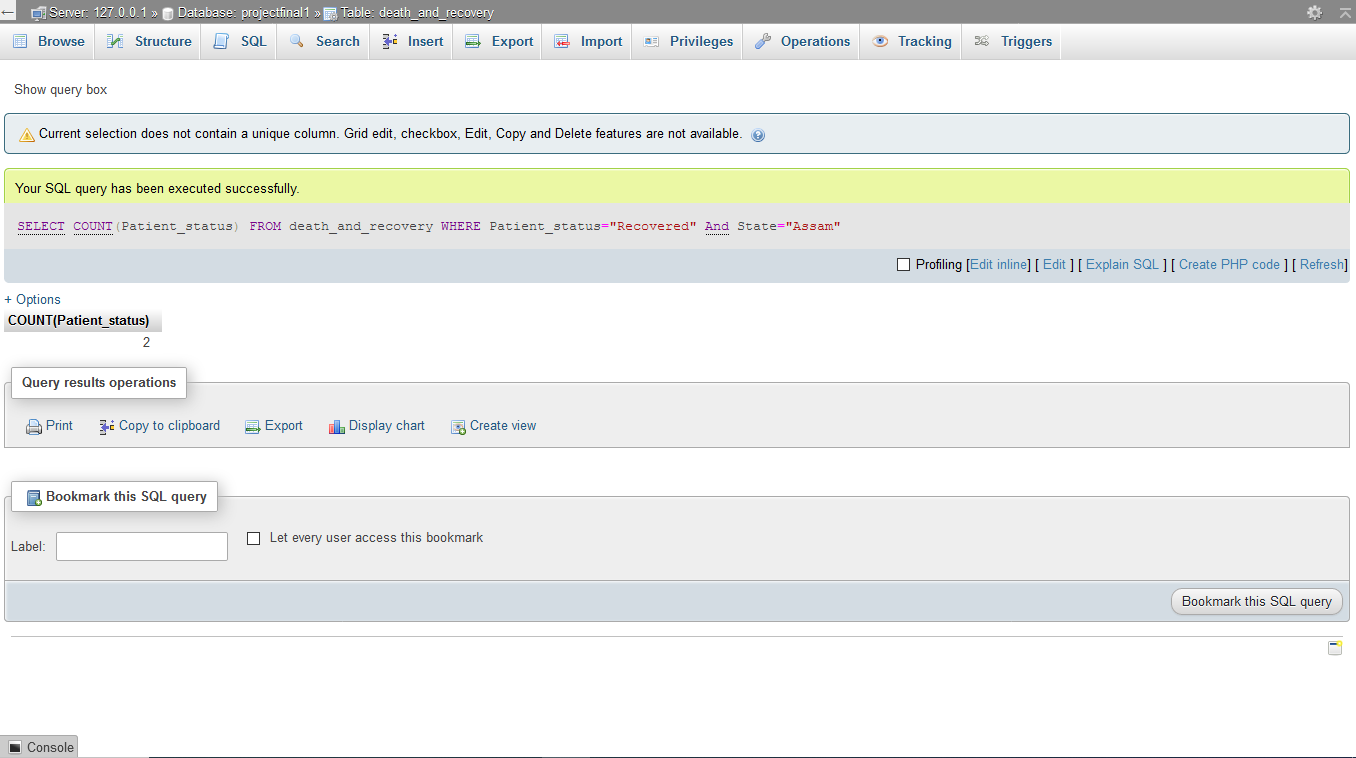


**Q5. Display the total number of people in assam who have recovered**

SELECT COUNT(Patient\_status)

FROM death\_and\_recovery

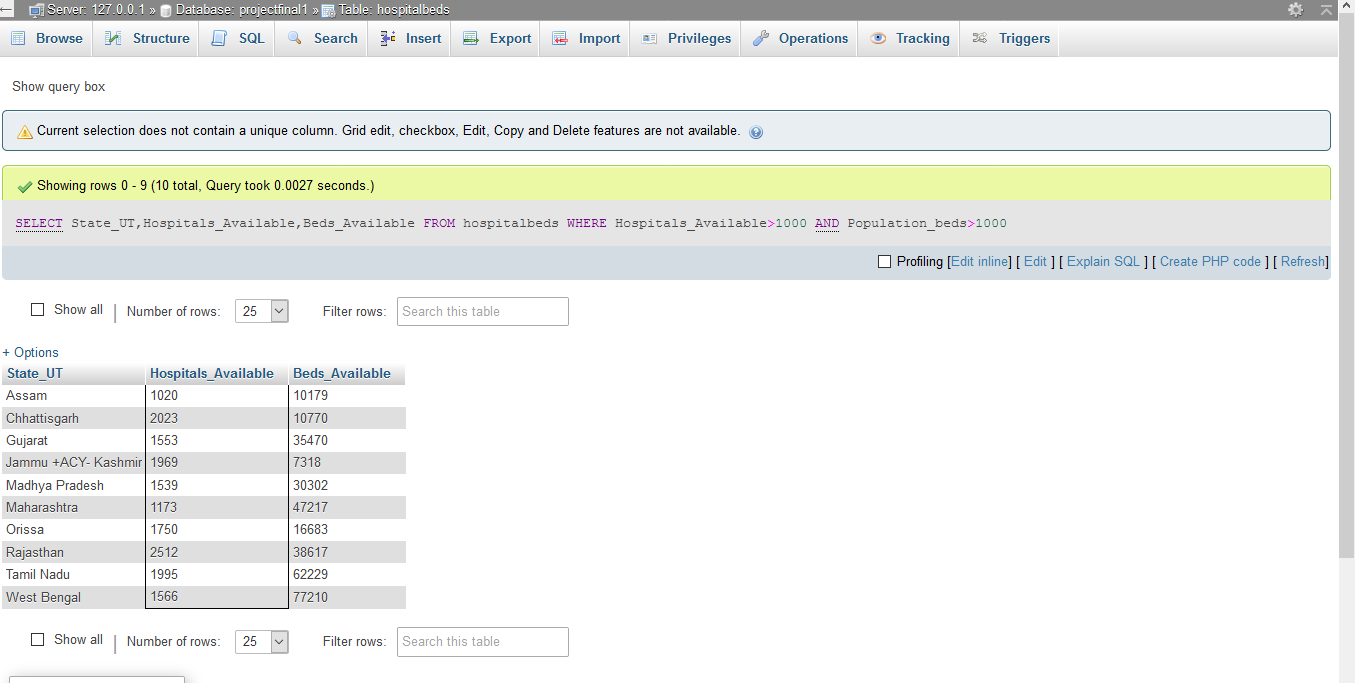
WHERE Patient\_status="Recovered" And State="Assam";



**Q6. Show the state, hospitals and beds available where beds and hospitals available are more than 1000.**

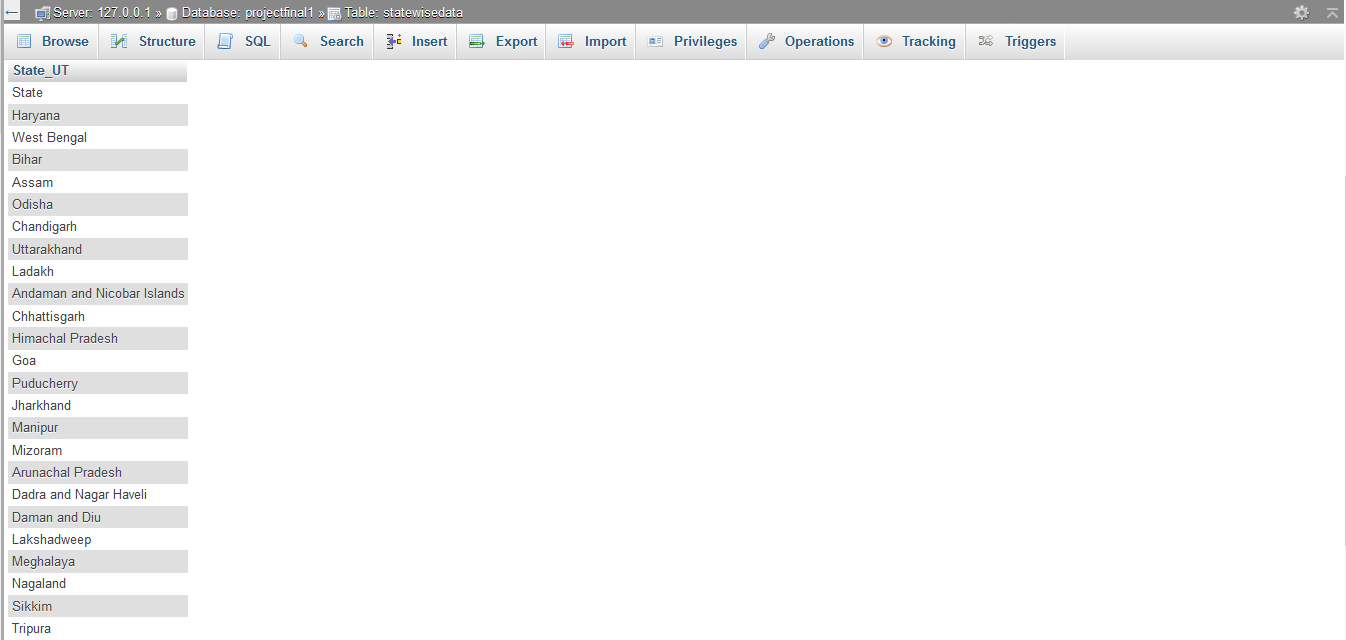
SELECT State\_UT, Hospitals\_Available, Beds\_Available

FROM hospitalbeds WHERE Hospitals\_Available>1000 AND Population\_beds>1000;



**Q7. Show states where active cases are less than 50**

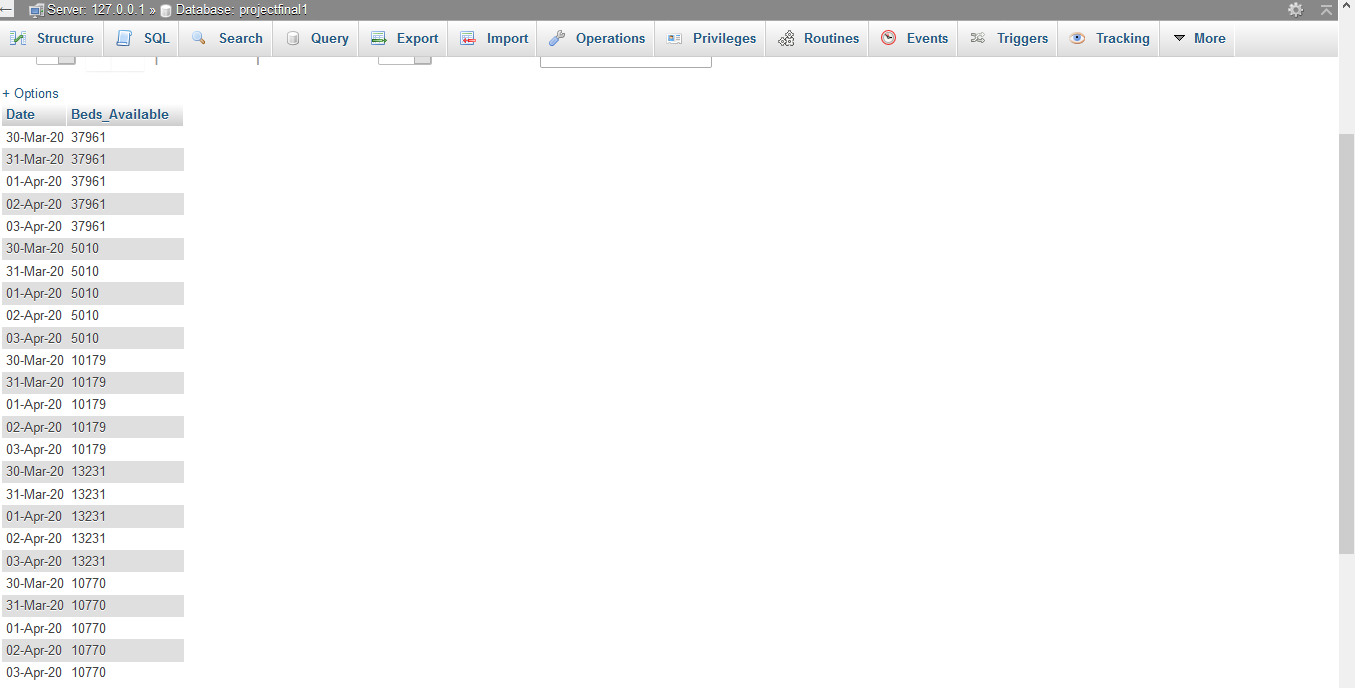
SELECT State\_UT FROM statewisedata WHERE Active<50;



**Q8. Show the dates when the beds are available**

SELECT DISTINCT datewisepatients.Date, hospitalbeds.Beds\_Available

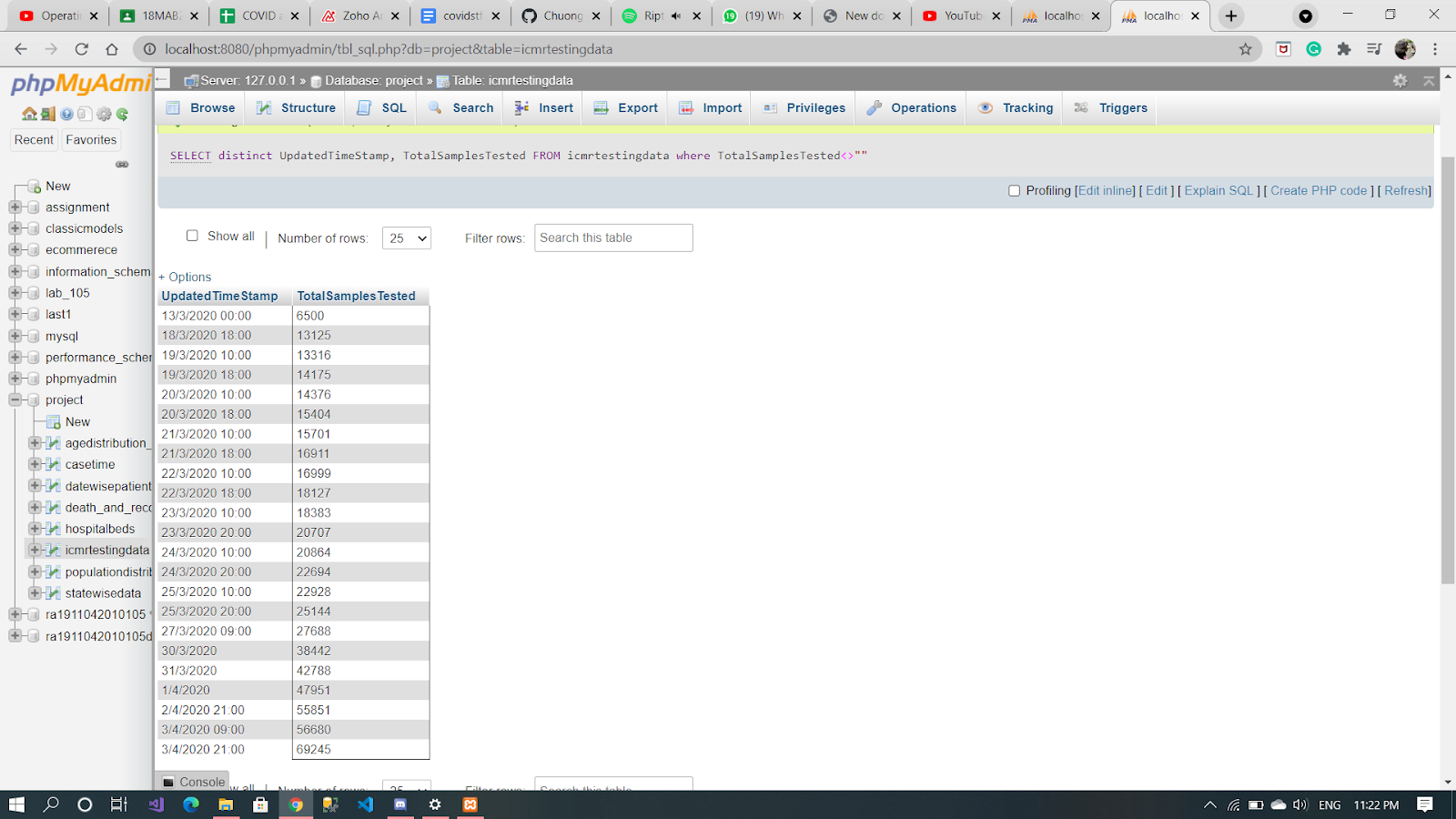
FROM datewisepatients, hospitalbeds;



**Q9. Show the details of the number of samples tested across each timestamp**

SELECT distinct UpdatedTimeStamp, TotalSamplesTested

FROM icmrtestingdata where TotalSamplesTested<>"";

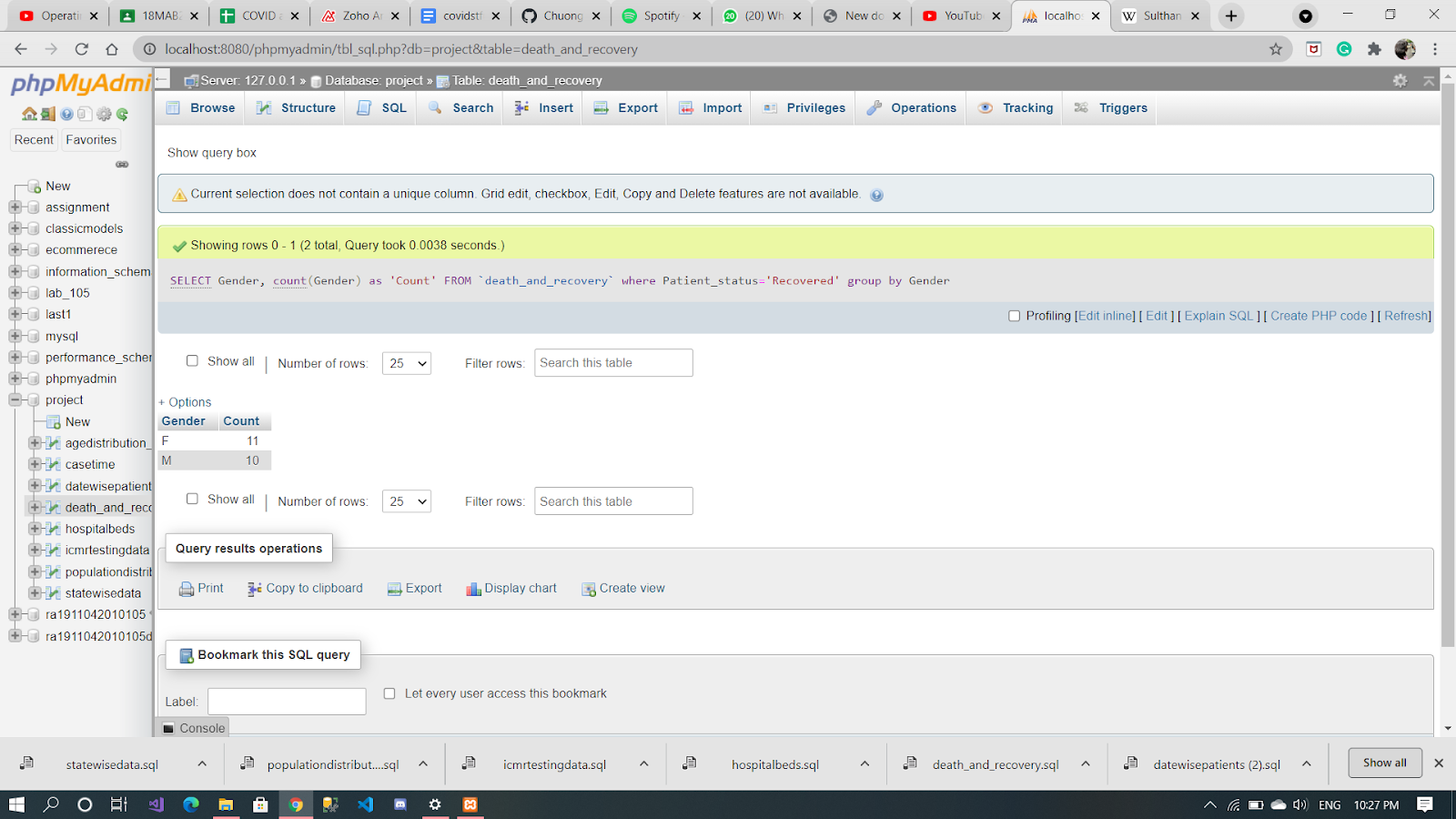


**Q10. Display the number of males and females who have recovered**

SELECT Gender, count(Gender) as 'Count'

FROM `death\_and\_recovery`

where Patient\_status='Recovered' group by Gender;

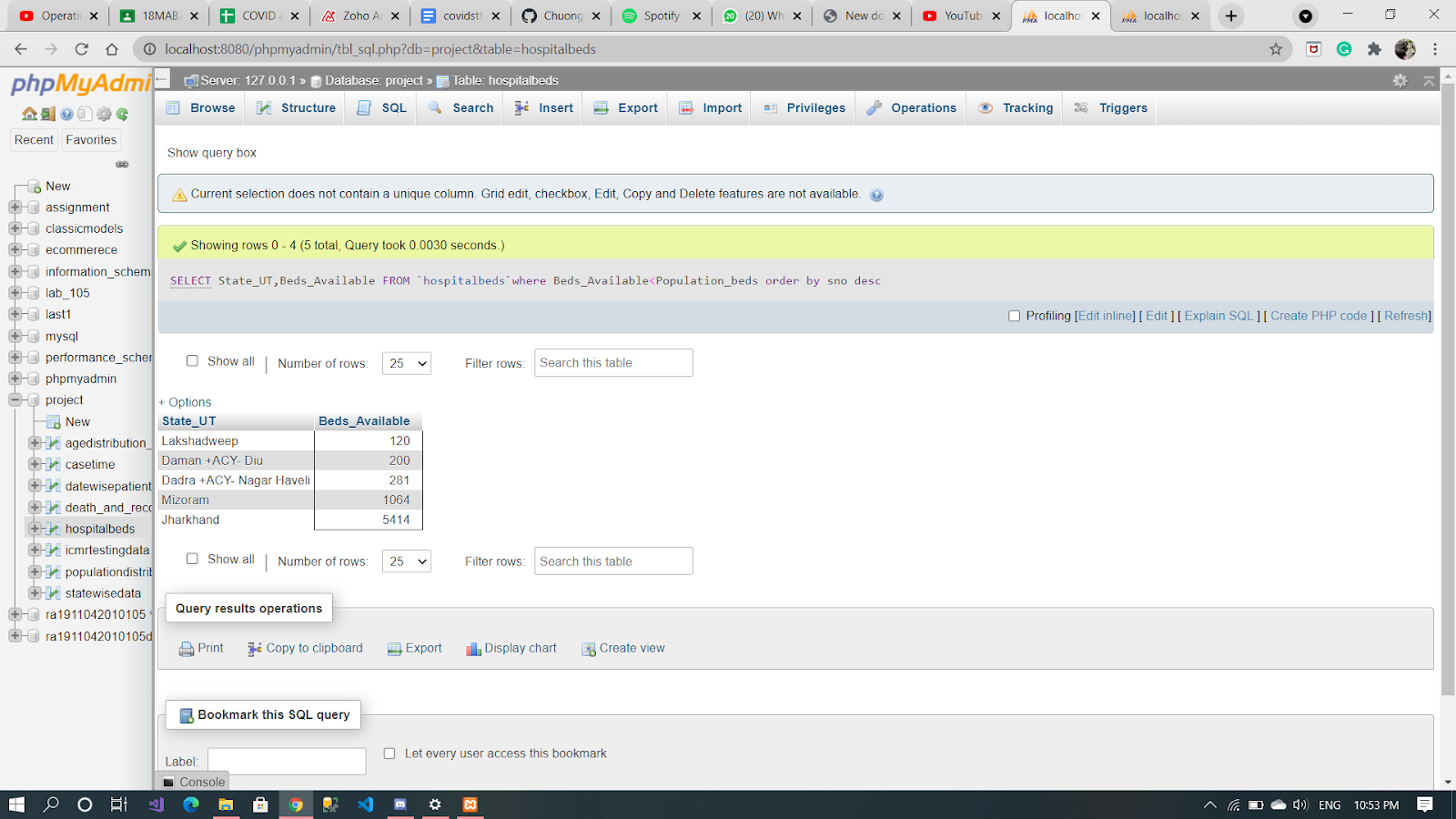


**Q11. List the states where the population is greater than the number of beds available in descending order of serial number**

SELECT State\_UT, Beds\_Available

FROM `hospitalbeds`

where Beds\_Available<Population\_beds order by sno desc ;



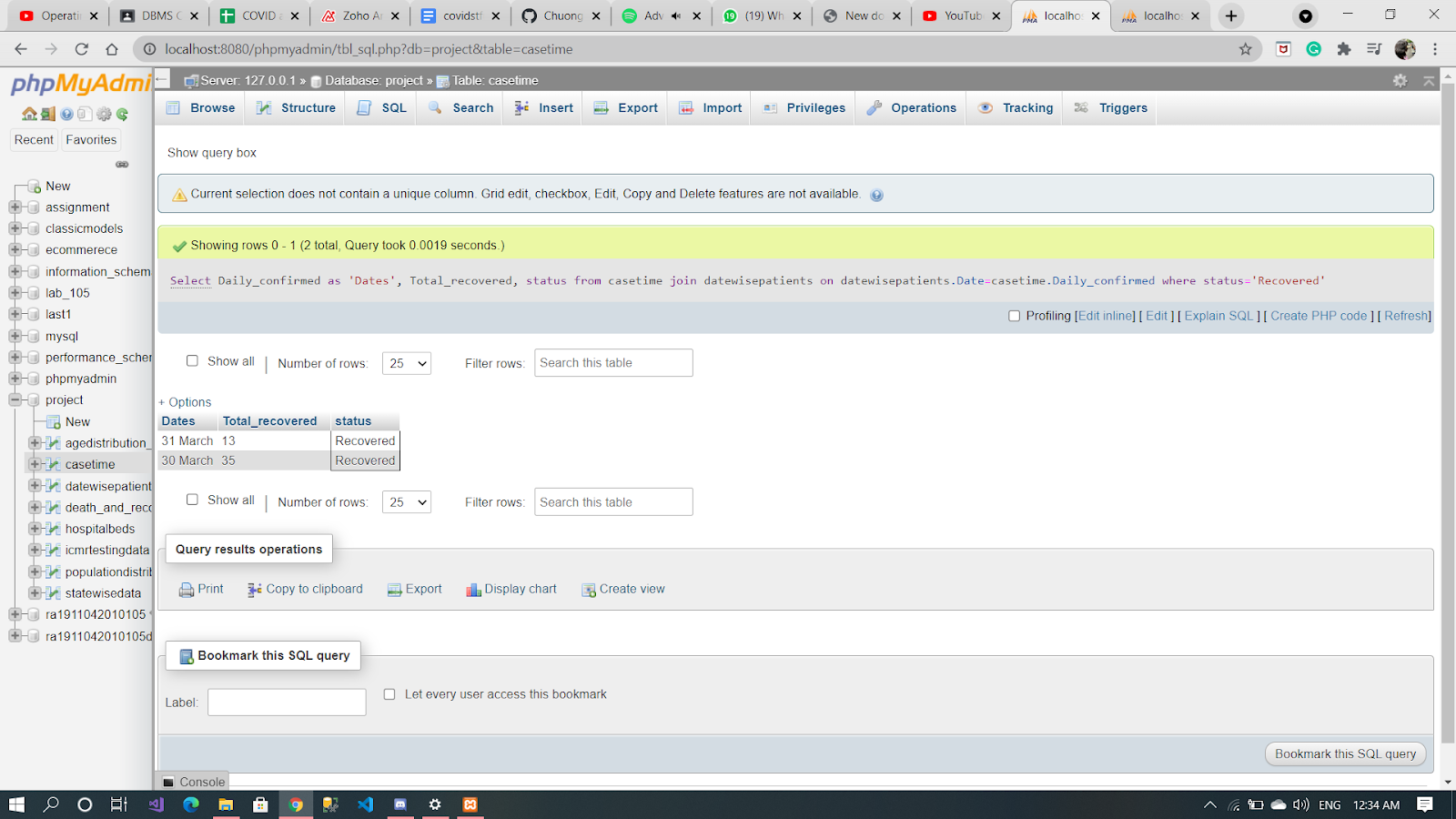
**Q12. Display the number of patients who have recovered along with their dates.**

SELECT Daily\_confirmed as 'Dates', Total\_recovered, status

from casetime join datewisepatients

on datewisepatients.Date = casetime.Daily\_confirmed

where status='Recovered';

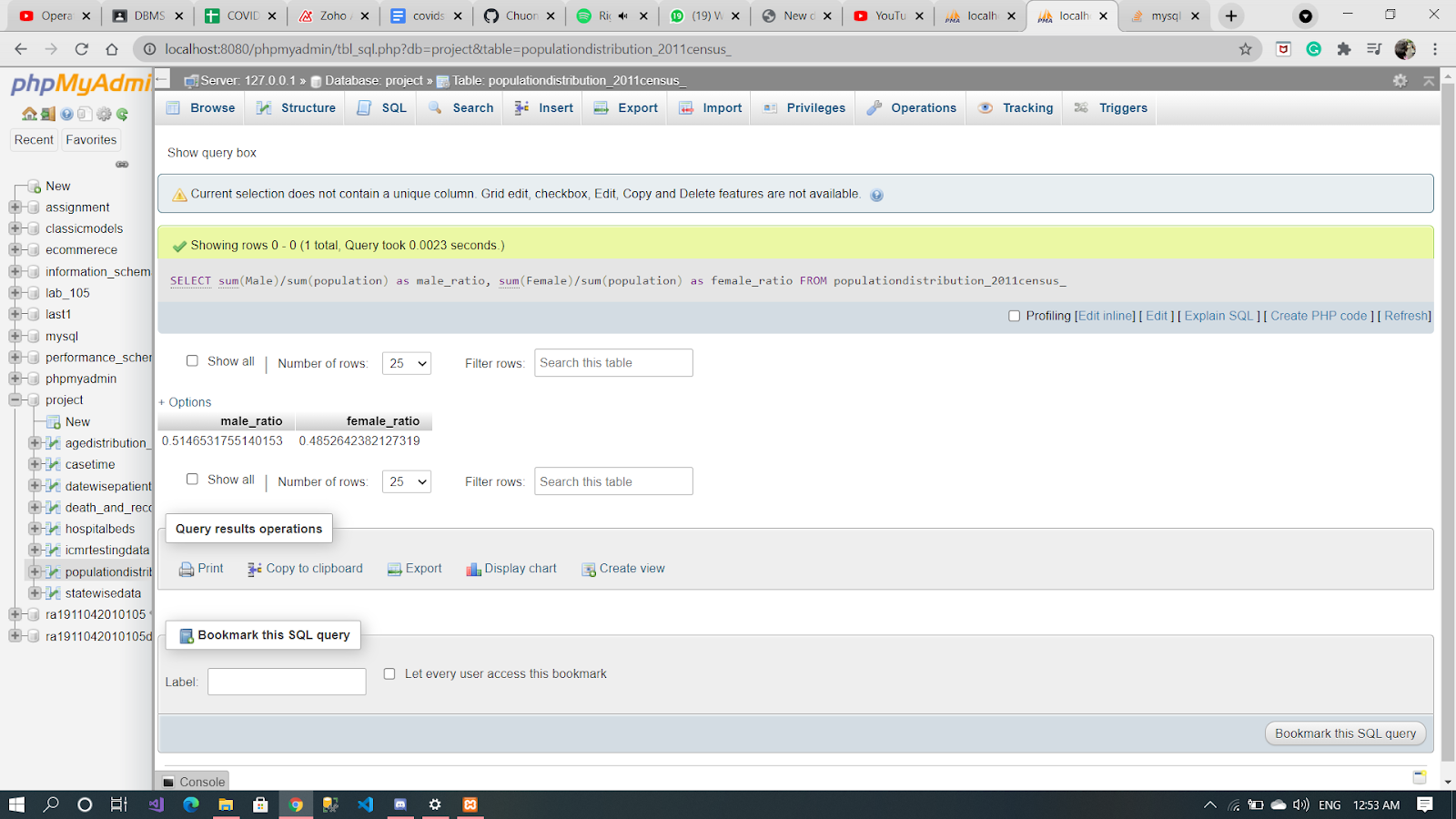


**Q13. Show the ratio of male and female to the whole population for all states**

SELECT sum(Male)/sum(population) as male\_ratio,

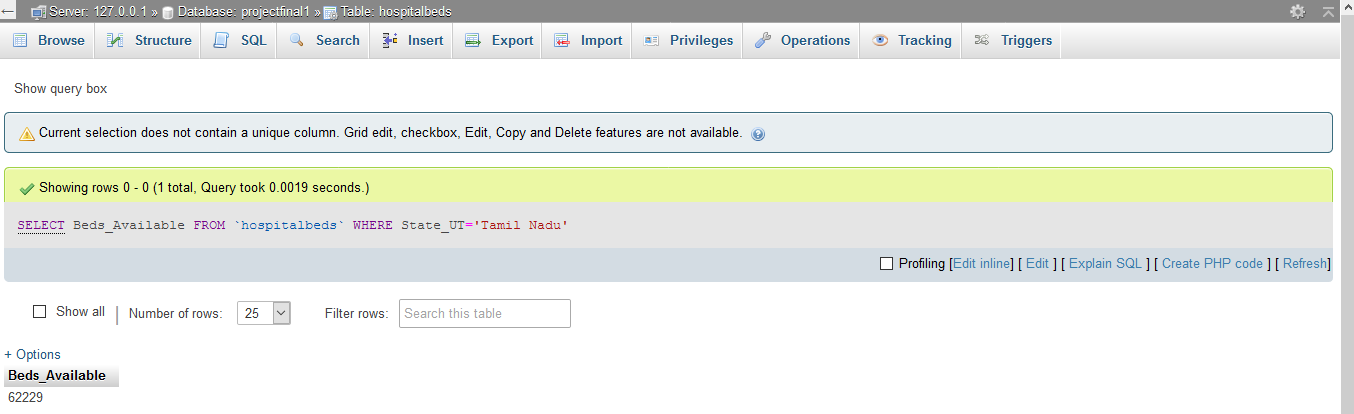
sum(Female)/sum(population) as female\_ratio

FROM populationdistribution\_2011census\_;



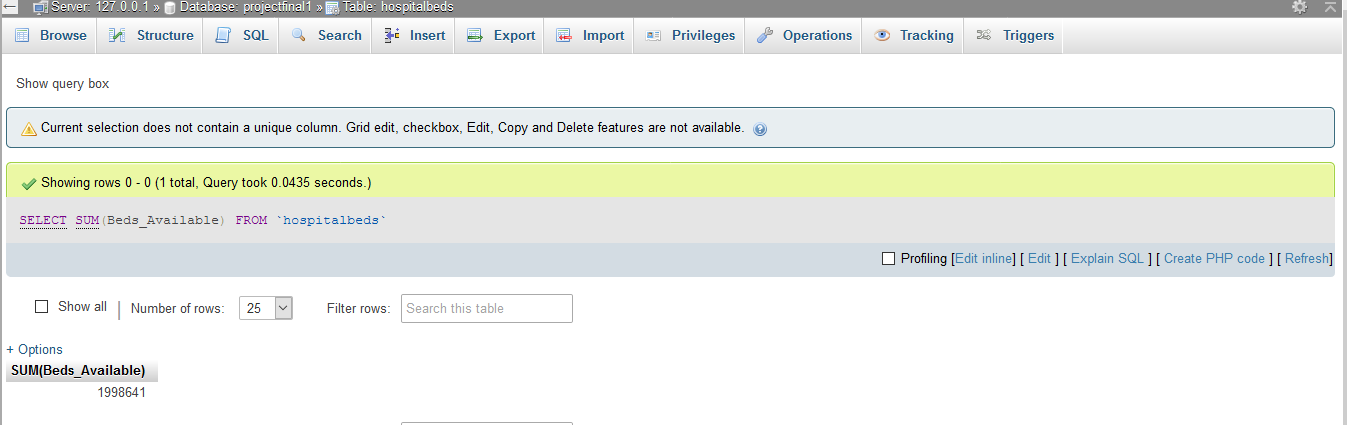
**Q14. Display the total number of beds available in Tamil Nadu**

SELECT Beds\_Available FROM `hospitalbeds` WHERE State\_UT=’Tamil Nadu’;



**Q15. Display the total number of beds available in India.**

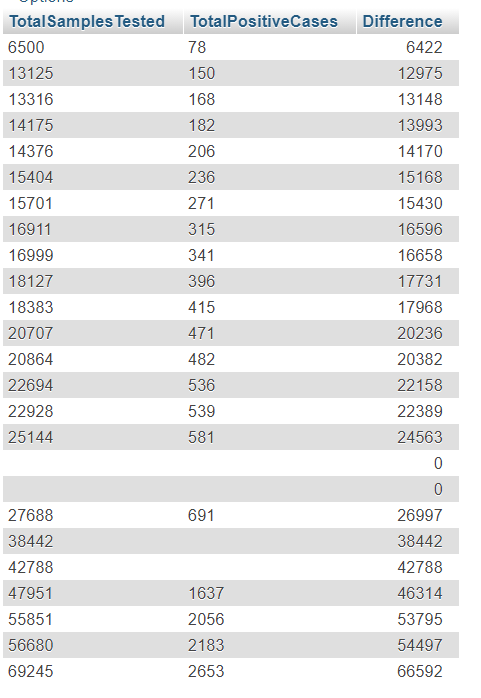
SELECT SUM(Beds\_Available) FROM `hospitalbeds`;



**Q16. Find out the Patients who tested negative after collection of samples.**

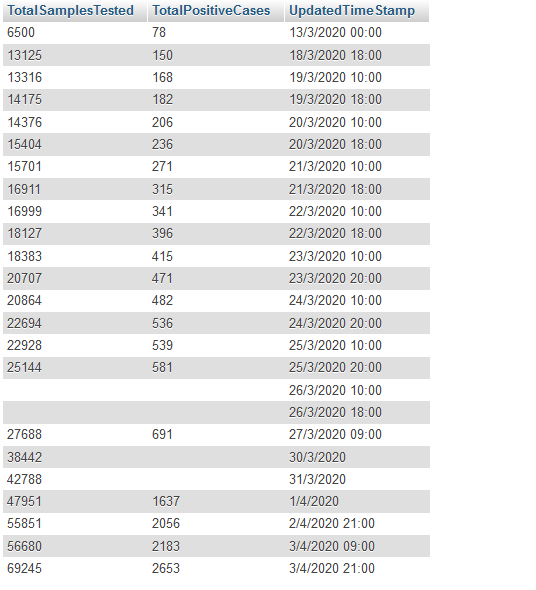
SELECT i.TotalSamplesTested , i.TotalPositiveCases, i.TotalSamplesTested- i.TotalPositiveCases AS Difference

FROM   icmrtestingdata as i



**Q17. Show TotalSamplesTested and TotalPositiveCases with date and time**

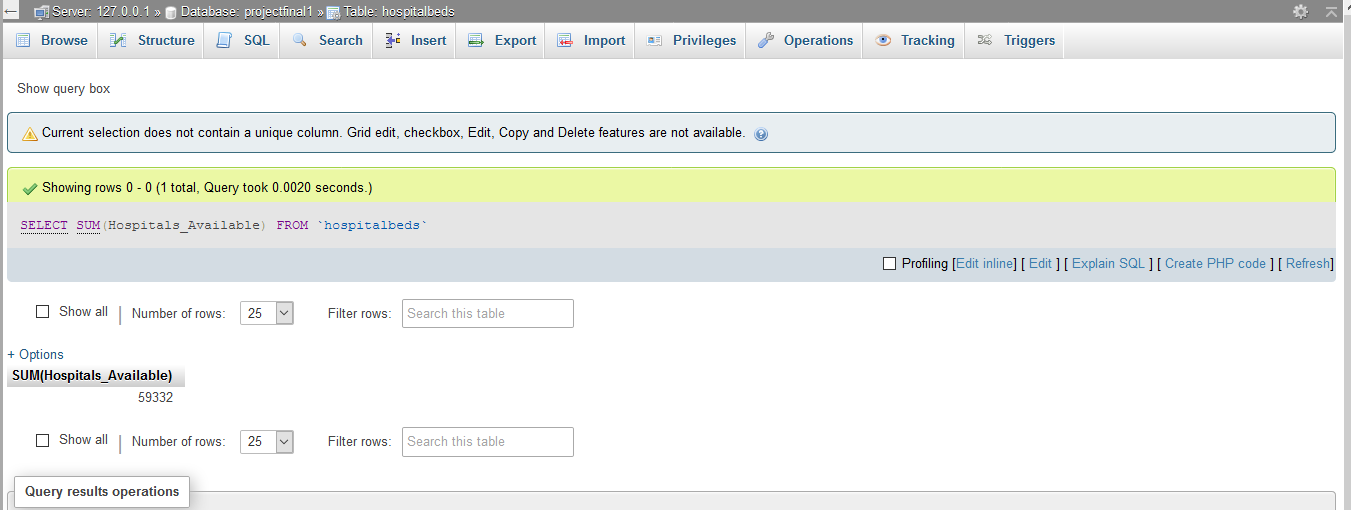
SELECT i.TotalSamplesTested , i.TotalPositiveCases, i.TotalSamplesTested- i.TotalPositiveCases AS Difference FROM icmrtestingdata as i;



**Q18. Display the total number of hospitals available in India.**

SELECT DISTINCT TotalSamplesTested, TotalPositiveCases, UpdatedTimeStamp

FROM icmrtestingdata;



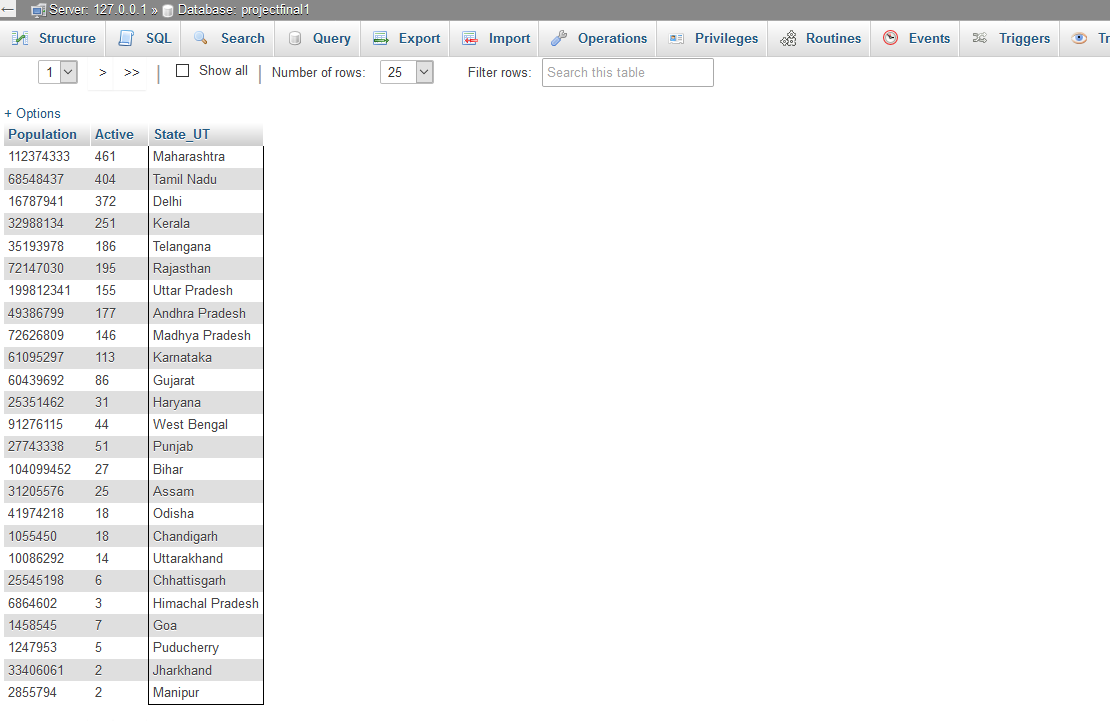
**Q19. Show the total population and active cases and the states.**

SELECT populationdistribution\_2011census\_.Population,statewisedata.Active,populationdistribution\_2011census\_.State\_UT

FROM populationdistribution\_2011census\_

JOIN statewisedata

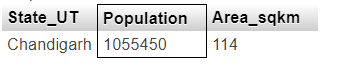
WHERE populationdistribution\_2011census\_.State\_UT=statewisedata.State\_UT;



**Q20. Find the 3rd minimum population in the population\_distribution table and also find out the State and area per sq km.**

SELECT populationdistribution\_2011census\_.Population, statewisedata.Active, populationdistribution\_2011census\_.State\_UT FROM populationdistribution\_2011census\_

JOIN statewisedata WHERE populationdistribution\_2011census\_.State\_UT=statewisedata.State\_UT;



**Q21.Show the Active Cases that are falling under the even dates of march and April in their respective states**

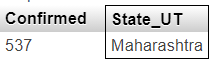
SELECT DISTINCT State\_UT, Population, Area\_sqkm

from populationdistribution\_2011census\_ p1 where 3 = (select count (distinct Population) from populationdistribution\_2011census\_ p2 where p1.Population >= p2.Population);



**Q22. Display the total confirmed cases till 31-March in Maharashtra**

SELECT statewisedata.Active, datewisepatients.Date, statewisedata.State\_UT FROM statewisedata, datewisepatients WHERE MOD (datewisepatients.Date,2) =0 ORDER BY datewisepatients.Date;



**Q23. Find the ratio of female to male between the age group of 50-54**

SELECT Confirmed,State\_UT

FROM statewisedata

WHERE statewisedata.Last\_updad\_time <='31/03/2020 23:07:28' AND statewisedata.State\_UT='Maharashtra';

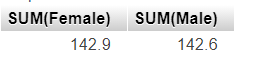


**Q24. Display the total percentage of male and female being affected by covid-19 ranging between ‘0-50’**

SELECT SUM(Female), SUM(Male)

FROM agedistribution\_2016\_estimates\_

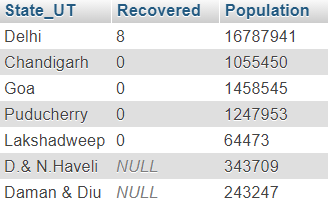
WHERE Age\_group BETWEEN '0-4' AND '45-50';



**Q 25. Display the States, recovered cases and their population living under where area is less than 4000 sq km.**

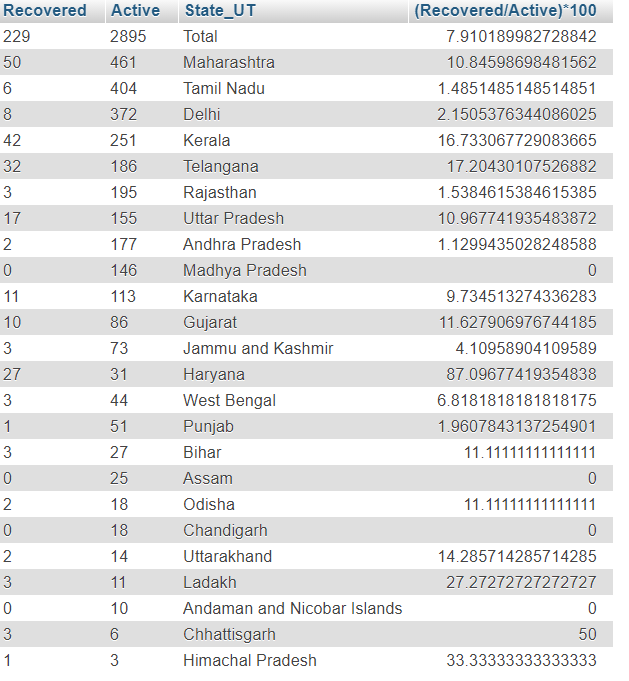
SELECT populationdistribution\_2011census\_.State\_UT, statewisedata.Recovered, populationdistribution\_2011census\_.Population

FROM populationdistribution\_2011census\_ LEFT JOIN statewisedata ON populationdistribution\_2011census\_.State\_UT=statewisedata.State\_UT WHERE Area\_sqkm< 4000;



**Q 26. Find out the recovery rate among the states and display it along with the names of the states and the number of recovered & active cases.**

SELECT Recovered, Active, State\_UT, (Recovered/Active) \*100 FROM `statewisedata`;

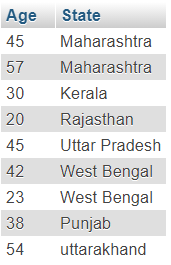


**Q 27. Display the age and the origin of those who recovered from covid-19 and is of masculine gender.**

SELECT death\_and\_recovery.Age, death\_and\_recovery.State FROM `death\_and\_recovery`

JOIN statewisedata ON death\_and\_recovery.State=statewisedata\_.State\_UT

WHERE Patient\_status="Recovered" and death\_and\_recovery.Gender="M";



**Q 28. Display the states along with the ratio of Beds available against the total population beds**

SELECT State\_UT, Beds\_Available, Population\_beds, Beds\_Available/Population\_beds FROM `hospitalbeds`;

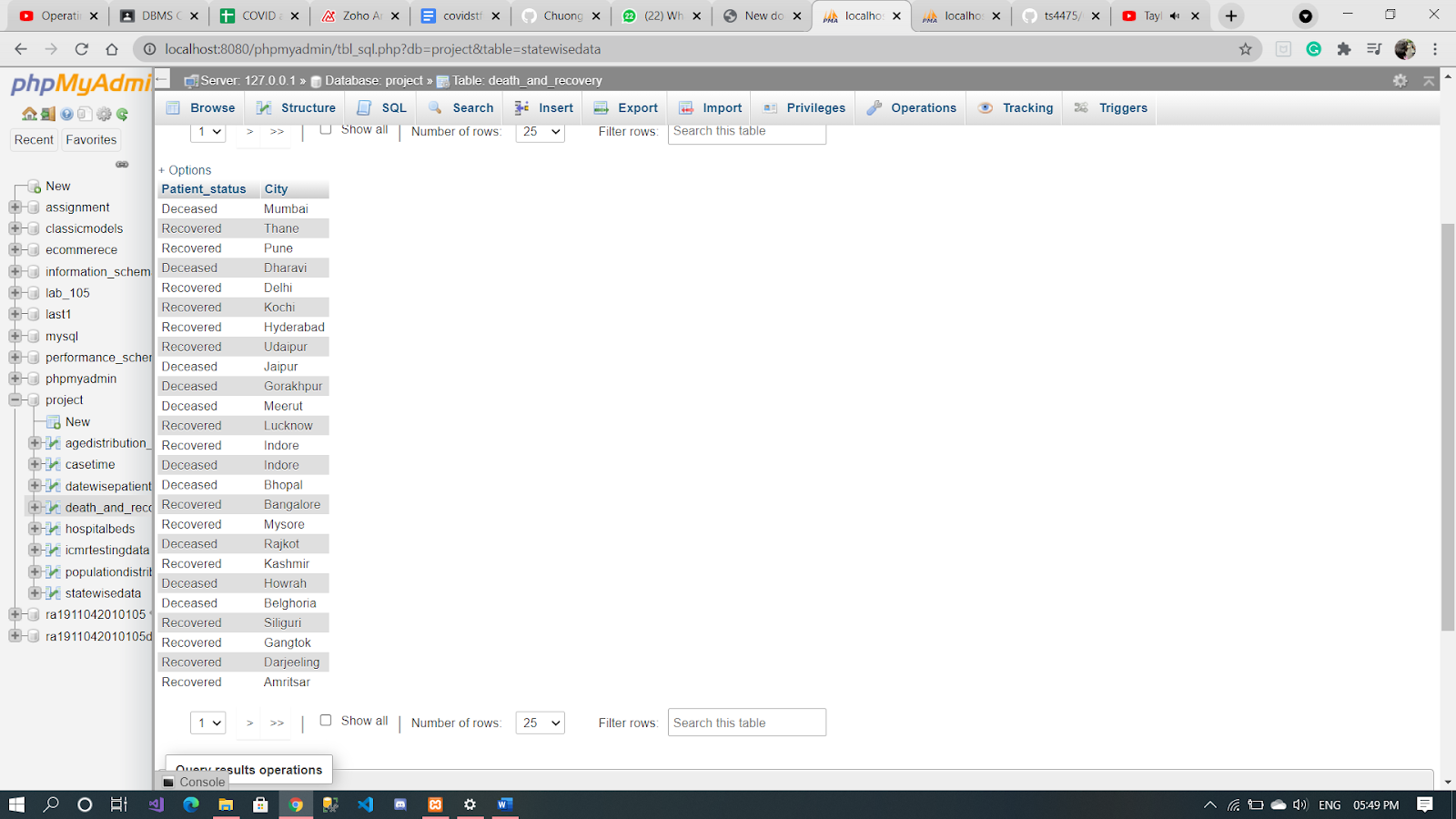


**Q29. Display the status of the patients in all the cities**

SELECT DISTINCT death\_and\_recovery.Patient\_status,death\_and\_recovery.City

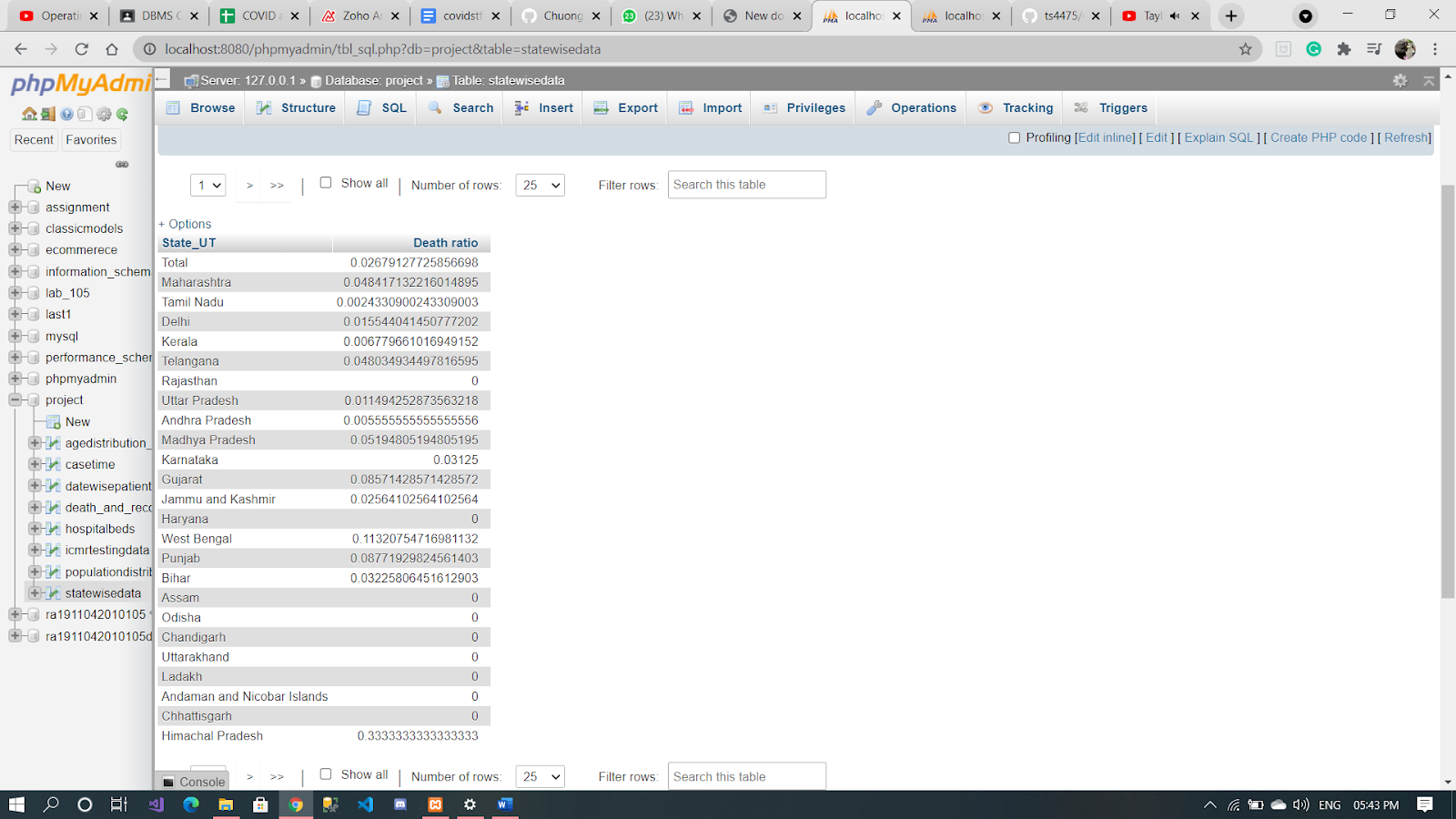
FROM death\_and\_recovery JOIN statewisedata ON statewisedata. State\_UT=death\_and\_recovery.State

WHERE Age= ANY (SELECT Age FROM death\_and\_recovery);



**Q30. Display the death ratio of each state**

SELECT State\_UT, death/confirmed as 'Death ratio' from statewisedata;



**Q31. Display the population, hospital beds, ratio of hospital beds to population in every state**

SELECT populationdistribution\_2011census\_.Population, hospitalbeds.Hospitals\_Available, hospitalbeds.Hospitals\_Available/populationdistribution\_2011census\_.Population

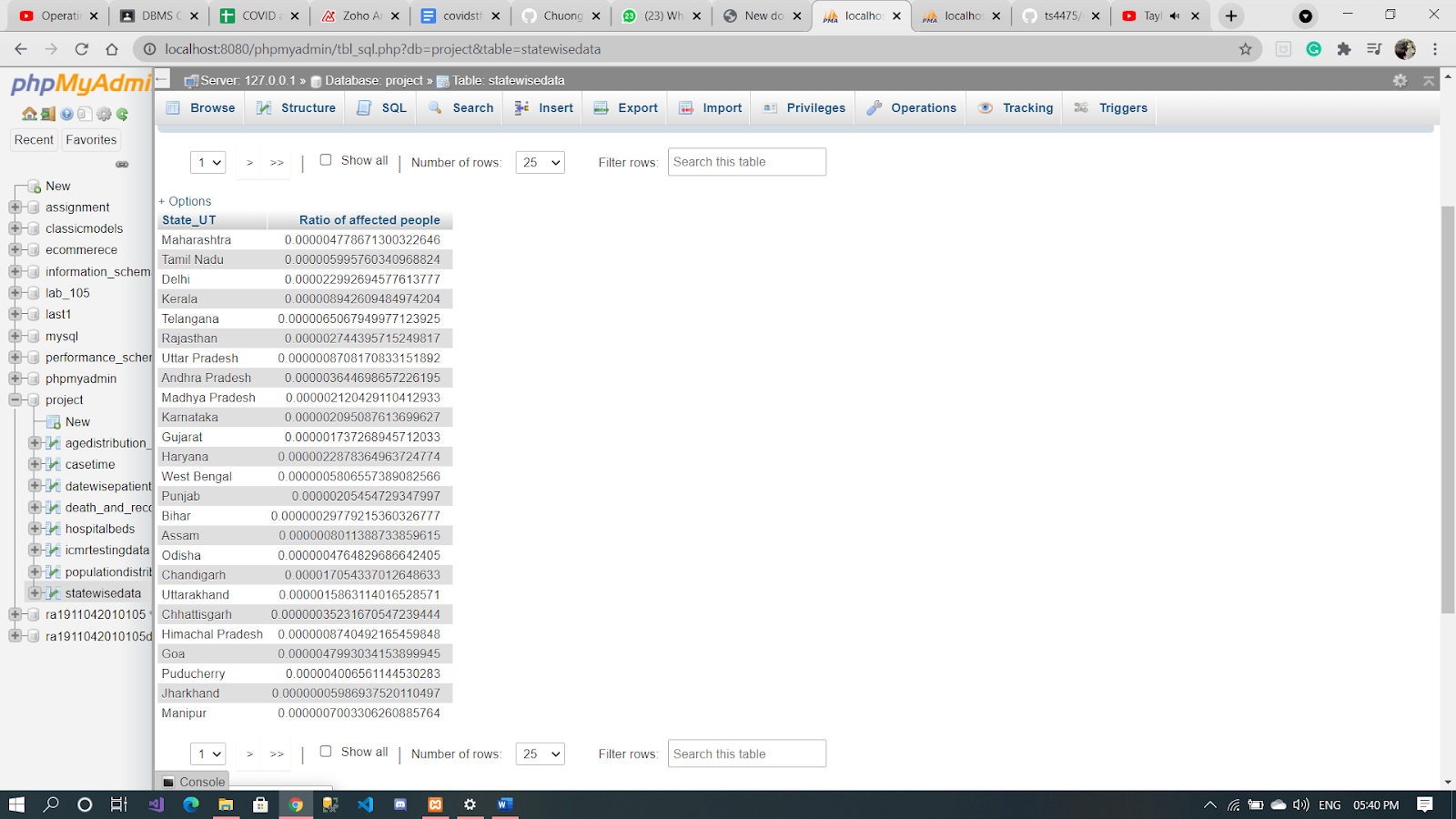
FROM populationdistribution\_2011census\_

JOIN hospitalbeds ON populationdistribution\_2011census\_.State\_UT=hospitalbeds.State\_UT;



**Q32. Display the ratio of affected people in every state**

SELECT statewisedata.State\_UT,confirmed/population as 'Ratio of affected people' from statewisedata join populationdistribution\_2011census\_ on populationdistribution\_2011census\_.State\_UT=statewisedata.State\_UT;



**Q33. Display the first five affected states along with their respective active cases using PL/SQL**

DECLARE

type states IS VARRAY(10) OF VARCHAR2(20);

type actives IS VARRAY(7) OF INTEGER;

state states;

active actives;

total integer;

BEGIN

state := states('Maharashtra','Tamil Nadu','Delhi','Kerala','Karnataka');

active:= actives(461, 404, 372,251,113);

total := state.count;

dbms\_output.put\_line('First '|| total || ' States with maximum covid cases are:-');

FOR i in 1 .. total LOOP

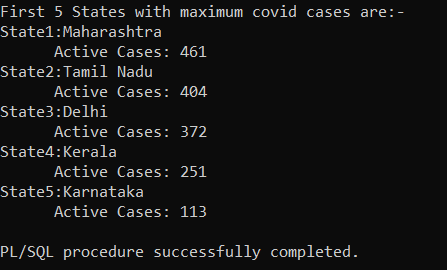
dbms\_output.put\_line('State'||i||':' || state(i) || '

Active Cases: ' || active(i));

END LOOP;

END;

/



**Q34. Check whether one belongs between the age 20-24 and also display the total population affected within the given range using PL/SQL**

DECLARE

age number(10) := 0;

age1 number(10) := 24;

BEGIN

age:= 20;

age1:= 25;

-- check the boolean condition using if statement

IF( age < 25) THEN

-- if condition is true then print the following

dbms\_output.put\_line('Age is between 20-24' );

ELSE

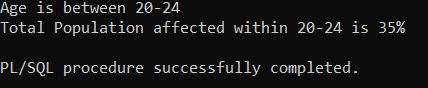
dbms\_output.put\_line('Age is above 24' );

END IF;

dbms\_output.put\_line('Total Population affected within 20-24 is 35%') ;

END;

/



**Q35. Display the Patient's Status,City from which they belong where age is less than 50 yrs using PL/SQL.**

DECLARE

type Age IS VARRAY(10) OF INTEGER;

type Gender IS VARRAY(10) OF VARCHAR(2);

type Patient\_Status IS VARRAY(10) OF VARCHAR(10);

type City IS VARRAY(10) OF VARCHAR(20);

a Age;

g Gender;

c City;

s Patient\_Status;

total integer;

BEGIN

a := Age(70,85,54,65,55,20,21,45,30,57);

g := Gender('M','M','F','M','F','M','M','M','F','M');

c := City('Mumbai','Mumbai','Bangalore','Chennai','Indore','Udaipur','Delhi','Thane','Kochi','Howrah');

s := Patient\_Status('Deceased','Deceased','Recovered','Recovered','Recovered','Recovered','Recovered','Recovered','Recovered','Deceased');

total := a.count;

dbms\_output.put\_line('Patient Status belonging to age less than 50 are as follows: ');

FOR i in 1 .. total LOOP

IF(a(i) < 50) THEN

dbms\_output.put\_line('Age:'|| a(i) || '---Status '|| s(i) ||' from ' ||c(i));

END IF;

END LOOP;

END;

/

