create database health\_analysis;

use health\_analysis;

show tables;

desc `hospitalisation details`;

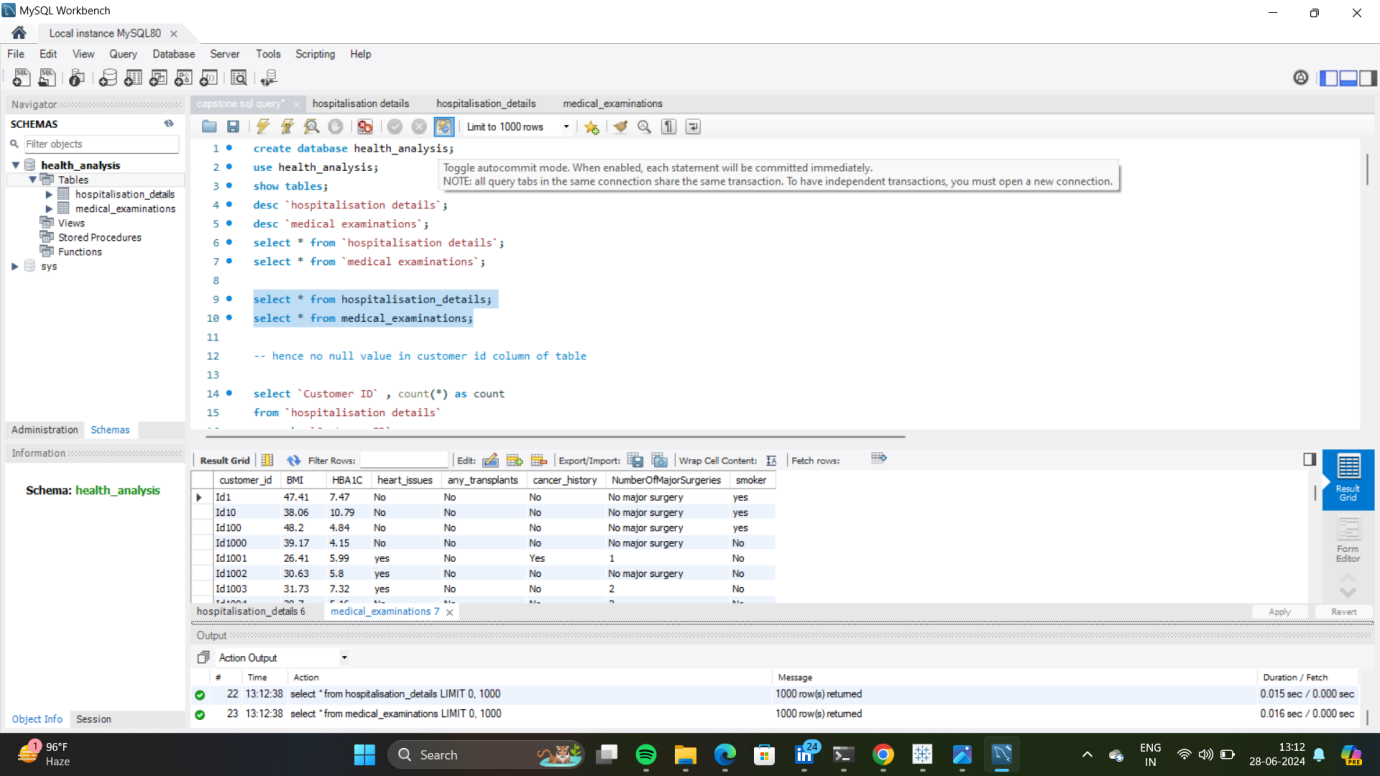
desc `medical examinations`;

select \* from `hospitalisation details`;

select \* from `medical examinations`;

select \* from hospitalisation\_details;

select \* from medical\_examinations;



-- hence no null value in customer id column of table

select `Customer ID` , count(\*) as count

from `hospitalisation details`

group by `Customer ID`

having count > 1;

SET SQL\_SAFE\_UPDATES = 0;

delete from `hospitalisation details`

where `Customer ID` = '?';

select `Customer ID` from `hospitalisation details`

where `Customer ID`= '?';

-- know we conclude that no null value and no duplicate values

desc `hospitalisation details`;

-- Rename the table

RENAME TABLE `hospitalisation details` TO hospitalisation\_details;

RENAME TABLE `medical examinations` TO medical\_examinations;

desc hospitalisation\_details;

desc medical\_examinations;

-- rename column to remove space between them for a better analysis

alter table hospitalisation\_details

rename column `Customer ID` to customer\_id;

alter table hospitalisation\_details

modify column customer\_id varchar(255);

alter table hospitalisation\_details

rename column `Hospital tier` to hospital\_tier;

**Healthcare Insurance Analysis**

alter table hospitalisation\_details

rename column `City tier` to city\_tier;

alter table hospitalisation\_details

rename column `State ID` to state\_id;

desc hospitalisation\_details;

select \* from medical\_examinations;

alter table medical\_examinations

rename column `Customer ID` to customer\_id;

alter table medical\_examinations

modify column customer\_id varchar(225);

alter table medical\_examinations

rename column `Heart Issues` to heart\_issues;

alter table medical\_examinations

rename column `Any Transplants` to any\_transplants;

alter table medical\_examinations

rename column `Cancer history` to cancer\_history;

-- Adding primary key to customer by checking null and duplicate values

select customer\_id

from hospitalisation\_details

where customer\_id is null;

-- not found Null value in customer\_id

-- apply primary key function

alter table hospitalisation\_details

add constraint pk\_customer\_id primary key (customer\_id);

alter table medical\_examinations

add constraint pk\_customer\_id primary key (customer\_id);

-- merging the tables

select \* from hospitalisation\_details hd

inner join medical\_examinations me

on hd.customer\_id = me.customer\_id;

/\* Q.2 Retrieve information about people who are diabetic and have heart problems with their average

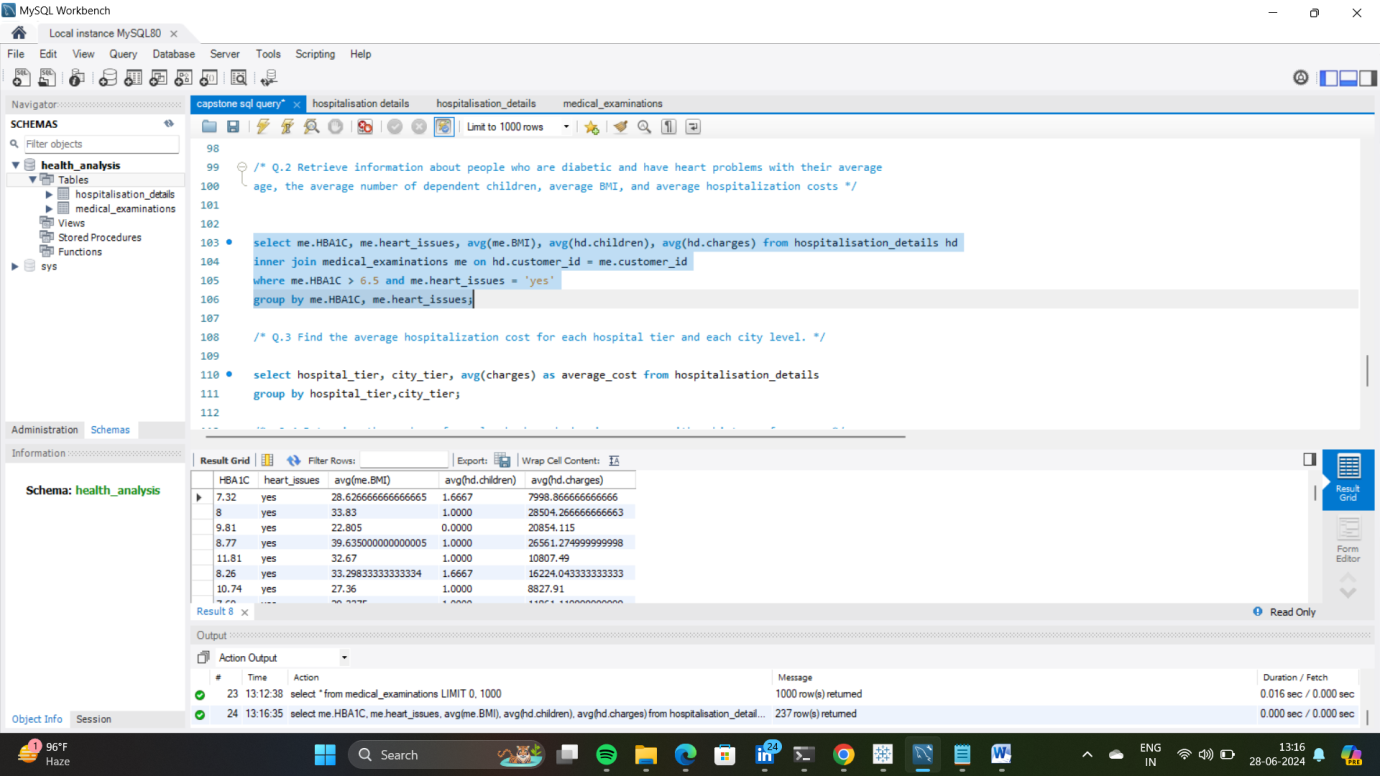
age, the average number of dependent children, average BMI, and average hospitalization costs \*/

select me.HBA1C, me.heart\_issues, avg(me.BMI), avg(hd.children), avg(hd.charges) from hospitalisation\_details hd

inner join medical\_examinations me on hd.customer\_id = me.customer\_id

where me.HBA1C > 6.5 and me.heart\_issues = 'yes'

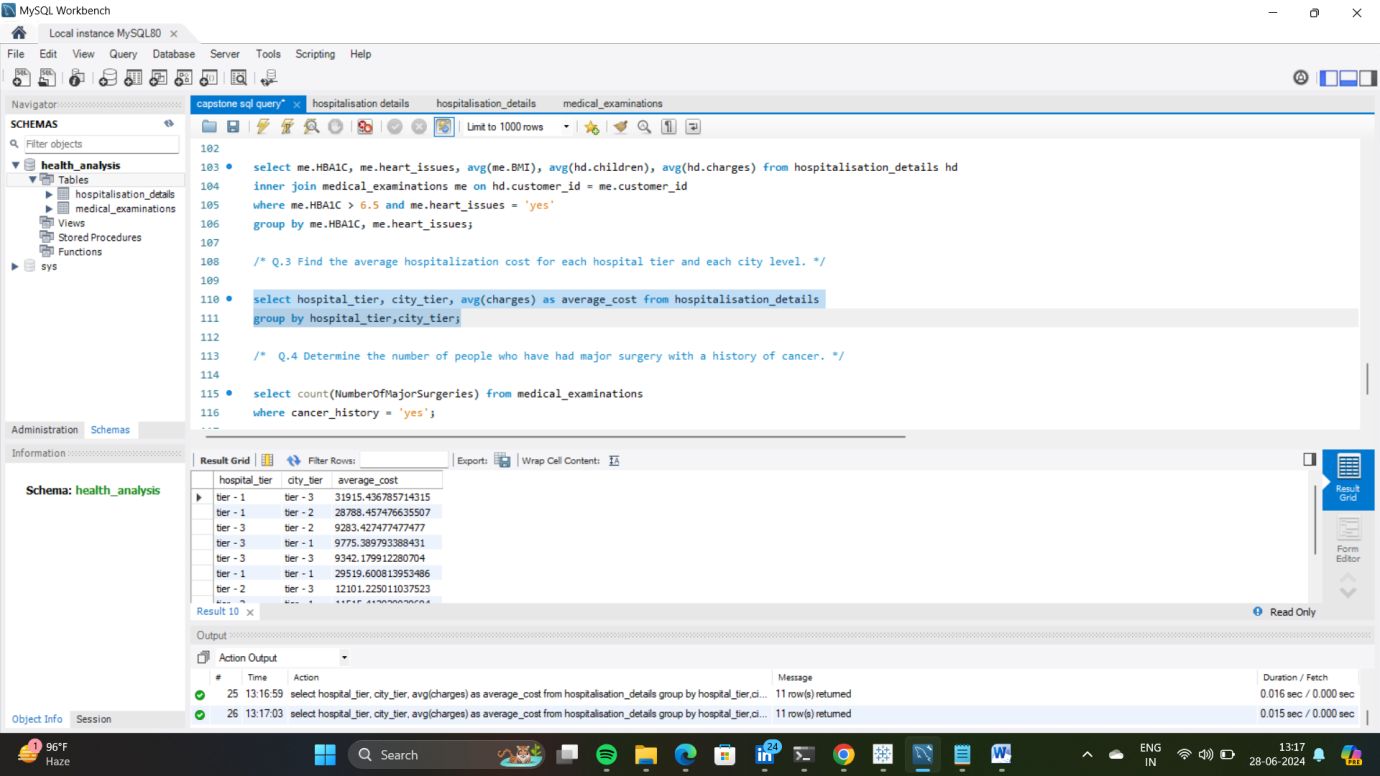
group by me.HBA1C, me.heart\_issues;



/\* Q.3 Find the average hospitalization cost for each hospital tier and each city level. \*/

select hospital\_tier, city\_tier, avg(charges) as average\_cost from hospitalisation\_details

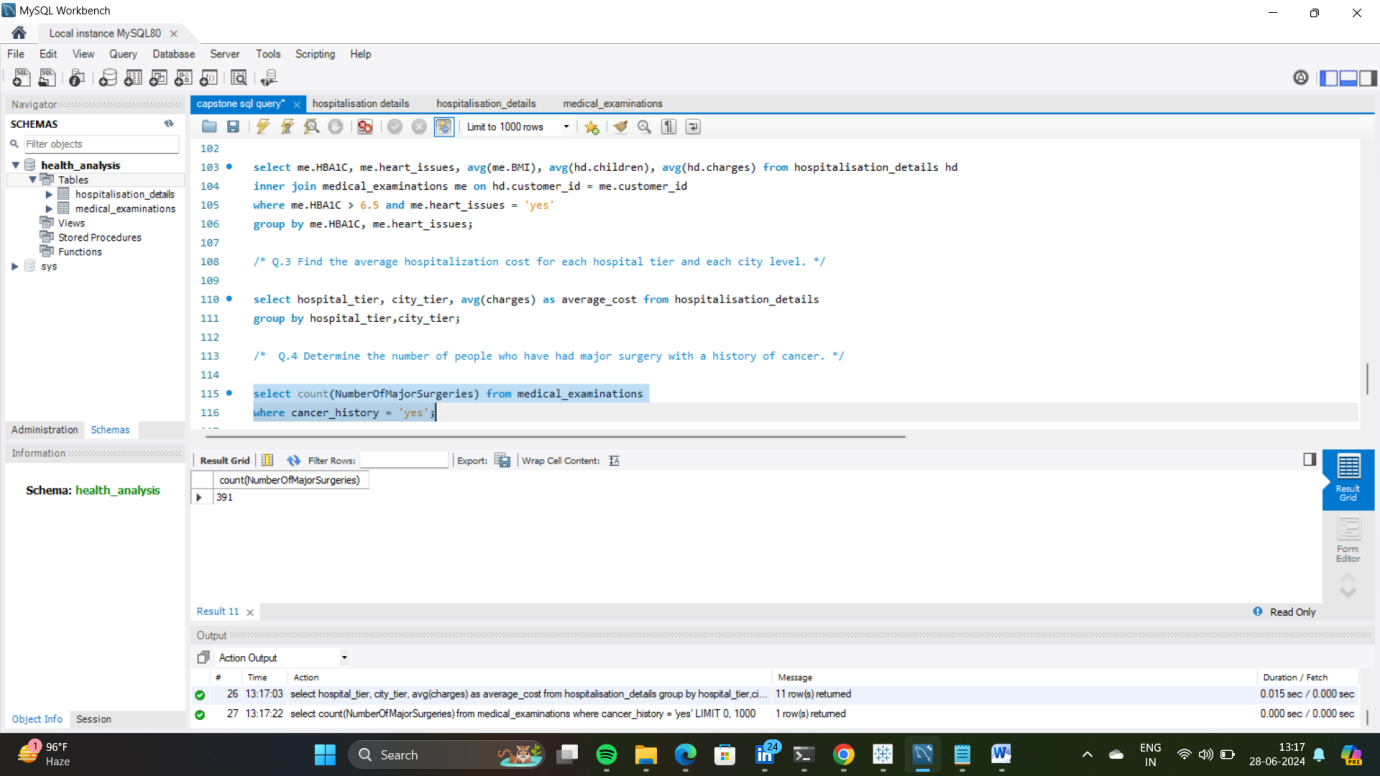
group by hospital\_tier,city\_tier;



/\* Q.4 Determine the number of people who have had major surgery with a history of cancer. \*/

select count(NumberOfMajorSurgeries) from medical\_examinations

where cancer\_history = 'yes';

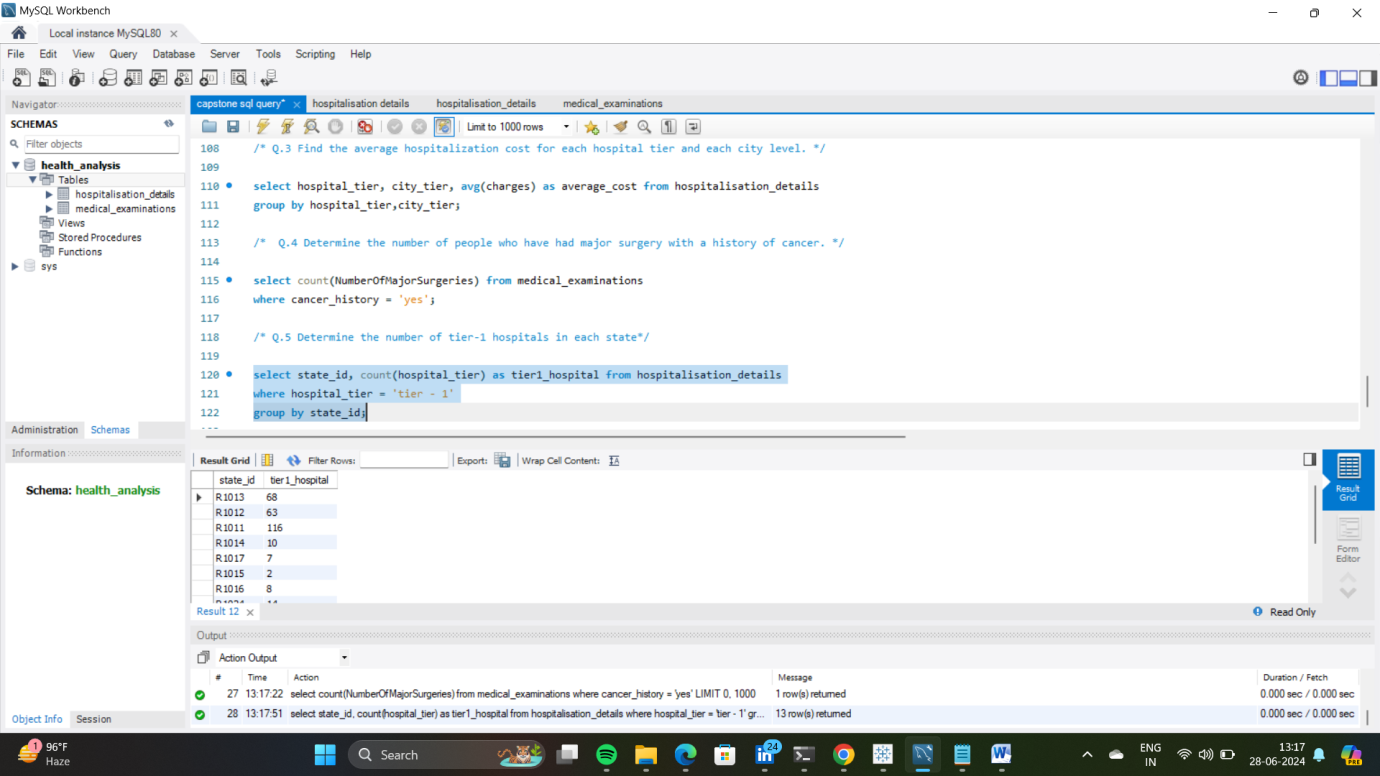


/\* Q.5 Determine the number of tier-1 hospitals in each state\*/

select state\_id, count(hospital\_tier) as tier1\_hospital from hospitalisation\_details

where hospital\_tier = 'tier - 1'

group by state\_id;



commit;

------------- END --------------