Lab Assignment-5

This Document consists of the Solution of the Assignment posted as 'SQL Lab Assignment 5 to 8' on LMS

Documentation:

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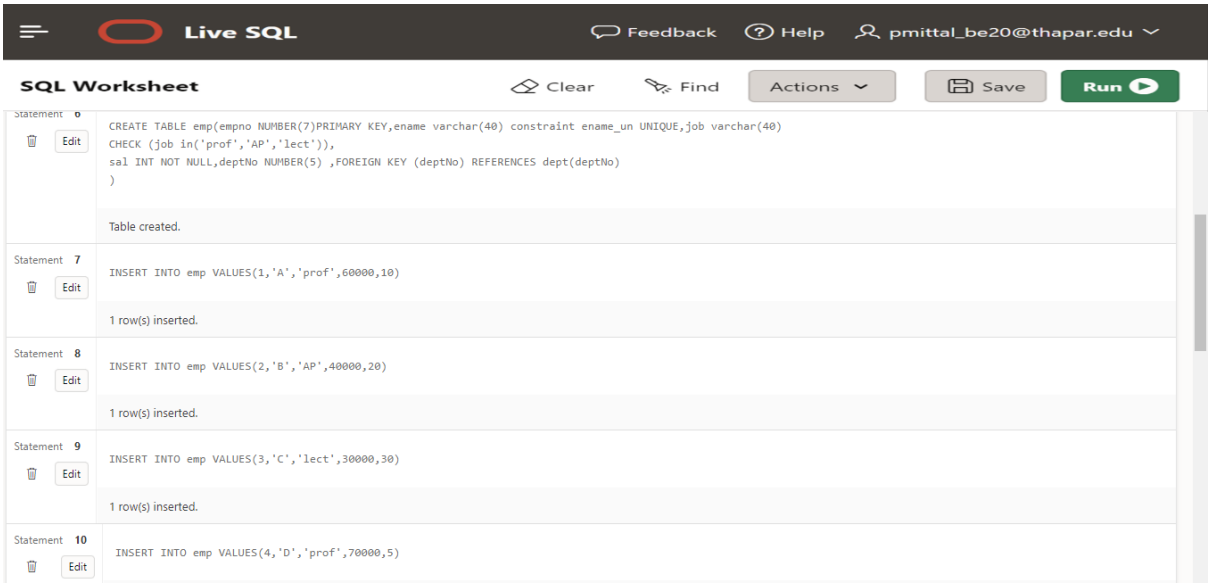
1. Create table emp which has the following attributes (employee table)
   (@empno, ename, job, sal, deptno)
   Where empno is primary key, ename is unique, job in (Prof, AP, and Lect), sal is not NULL, and deptno is foreign key

```
CREATE TABLE emp(empno NUMBER(7)PRIMARY KEY,ename
varchar(40) constraint ename_un UNIQUE,job varchar(40)
CHECK (job in('prof','AP','lect')),
sal INT NOT NULL,deptNo NUMBER(5) ,FOREIGN KEY (deptNo)
REFERENCES dept(deptNo)
);
INSERT INTO emp VALUES(1,'A','prof',60000,10);
INSERT INTO emp VALUES(2,'B','AP',40000,20);
INSERT INTO emp VALUES(3,'C','lect',30000,30);
INSERT INTO emp VALUES(4,'D','prof',70000,5);
```

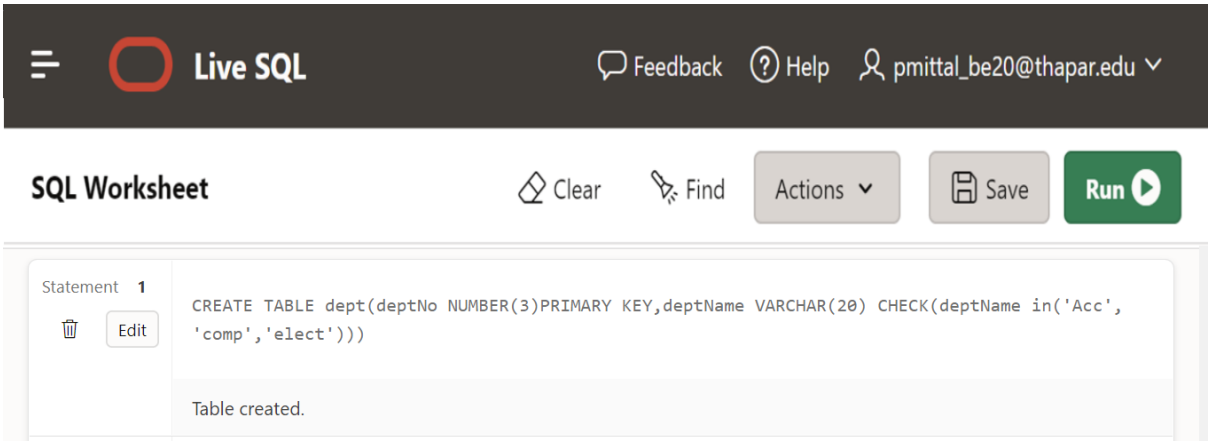


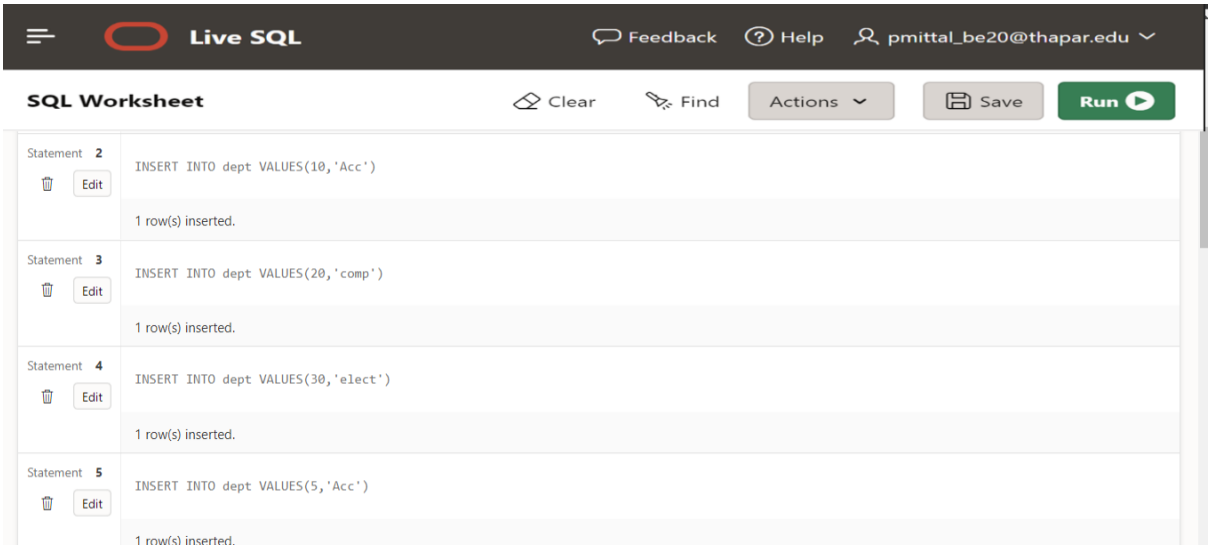
2. Create table dept which has the following attributes (department table)

(@deptno, dname)

Where deptno is primary key, dname in (Acc, comp, elect)

```
CREATE TABLE dept(deptNo NUMBER(3)PRIMARY KEY,deptName
VARCHAR(20) CHECK(deptName in('Acc',
'comp','elect')));
INSERT INTO dept VALUES(10,'Acc');
INSERT INTO dept VALUES(20,'comp');
INSERT INTO dept VALUES(30,'elect');
INSERT INTO dept VALUES(5,'Acc');
```



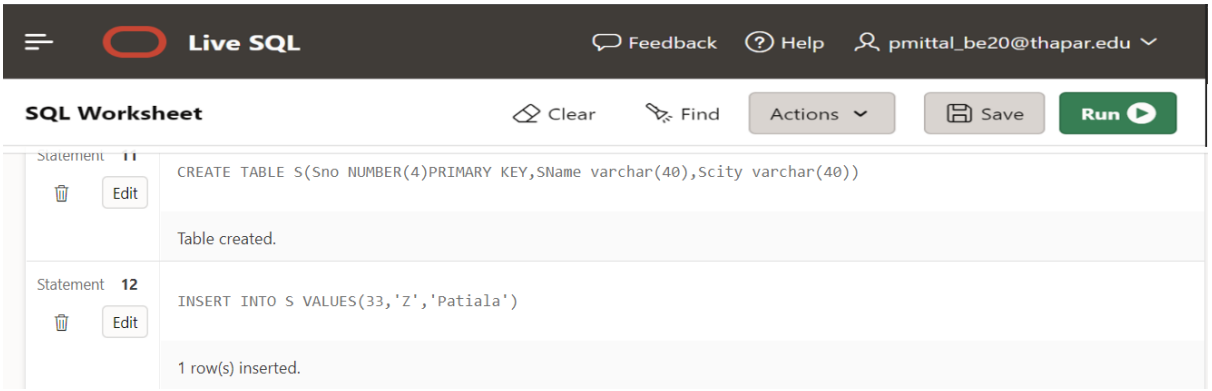


3. Create table S which has the following attributes (Salesperson table)

(@sno, sname, city)

Where sno is primary key

```
CREATE TABLE S(Sno NUMBER(4)PRIMARY KEY,SName
varchar(40),Scity varchar(40));
INSERT INTO S VALUES(33,'Z','Patiala');
```

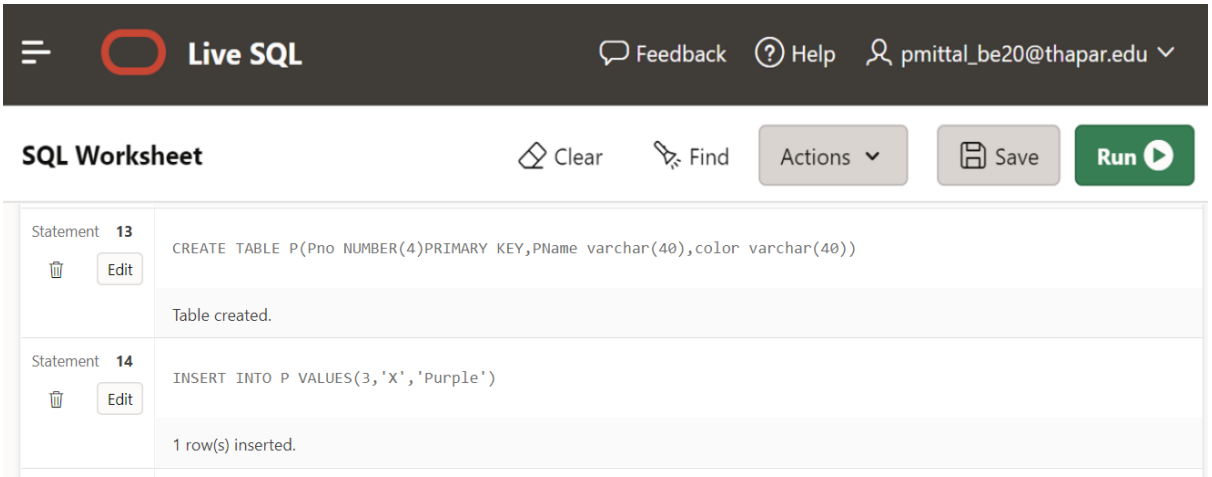


4. Create table P which has the following attributes (Part table)

(@pno, pname, color)

Where pno is primary key

```
CREATE TABLE P(Pno NUMBER(4)PRIMARY KEY,PName
varchar(40),color varchar(40));
INSERT INTO P VALUES(3,'X','Purple');
```

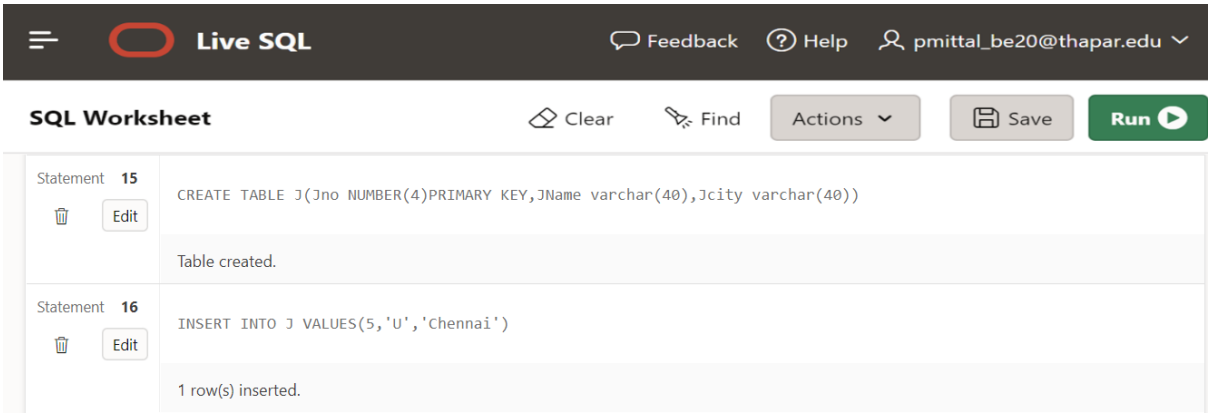


5. Create table J which has the following attributes (ProJect table)

(@jno, jname, city)

Where jno is primary key

```
CREATE TABLE J(Jno NUMBER(4)PRIMARY KEY,JName
varchar(40),Jcity varchar(40));
INSERT INTO J VALUES(5,'U','Chennai');
```



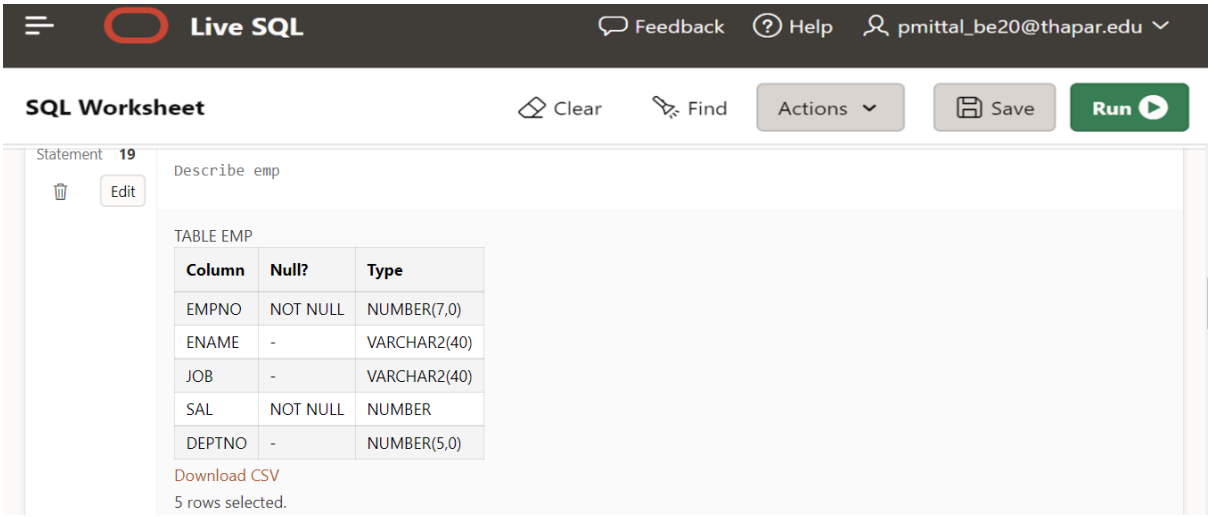
6. Create table SPJ which has the following attributes
(@ (sno, pno, jno), qty)
Where combination of (sno, pno, jno) is primary key, also sno, pno, jno are foreign keys

```
 CREATE TABLE SPJ(Sno NUMBER(4),Pno NUMBER(4),Jno
NUMBER(4),qty NUMBER(6),
PRIMARY KEY(Sno,Pno,Jno),FOREIGN KEY(Sno) REFERENCES S(Sno),
FOREIGN KEY(Pno) REFERENCES P(Pno),FOREIGN KEY(Jno) REFERENCES
J(Jno));
INSERT INTO SPJ VALUES(33,3,5,221);
```

Lab Assignment-6

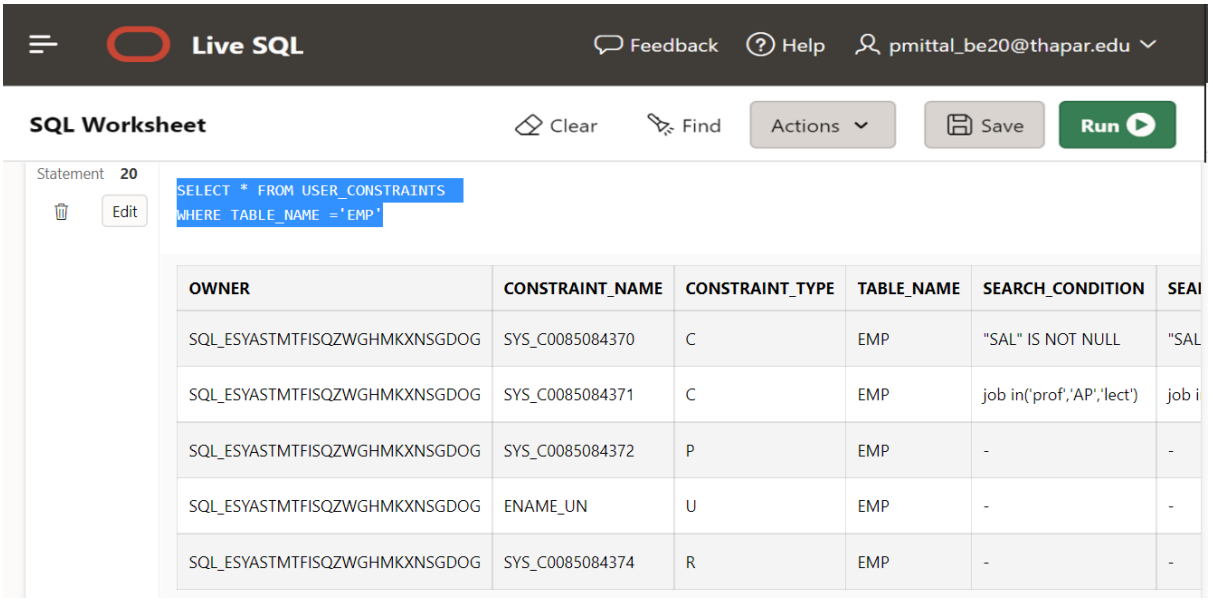
Q1) Check the structure of tables.

```
Describe emp
```



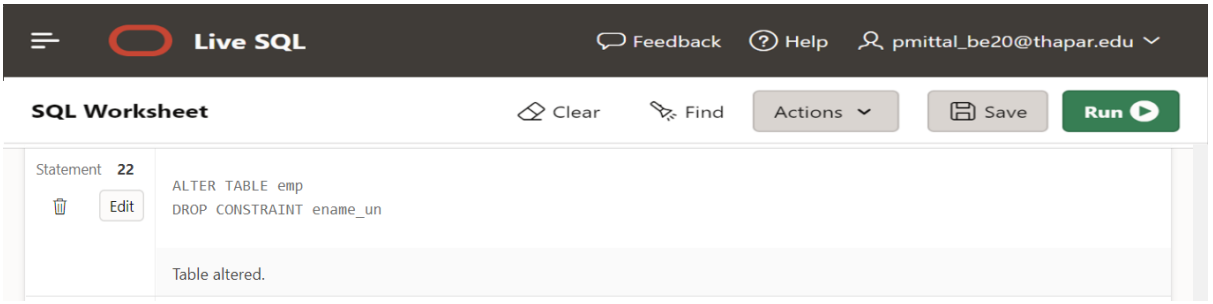
Q2) Check the constraint name for applied constraints?

```
SELECT * FROM USER_CONSTRAINTS  WHERE TABLE_NAME ='EMP'
SELECT * FROM USER_CONS_COLUMNS WHERE TABLE_NAME='DEPT1'
SELECT * FROM USER_CONS_COLUMNS WHERE TABLE_NAME='SALESPERSON'
SELECT * FROM USER_CONS_COLUMNS WHERE TABLE_NAME='P'
SELECT * FROM USER_CONS_COLUMNS WHERE TABLE_NAME='J'
```



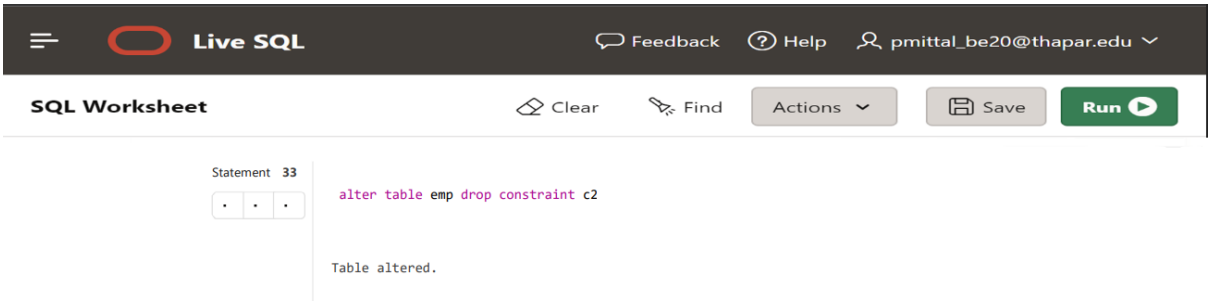
Q3) Drop the unique constraint on ENAME

```
ALTER TABLE emp
DROP CONSTRAINT ename_un
```



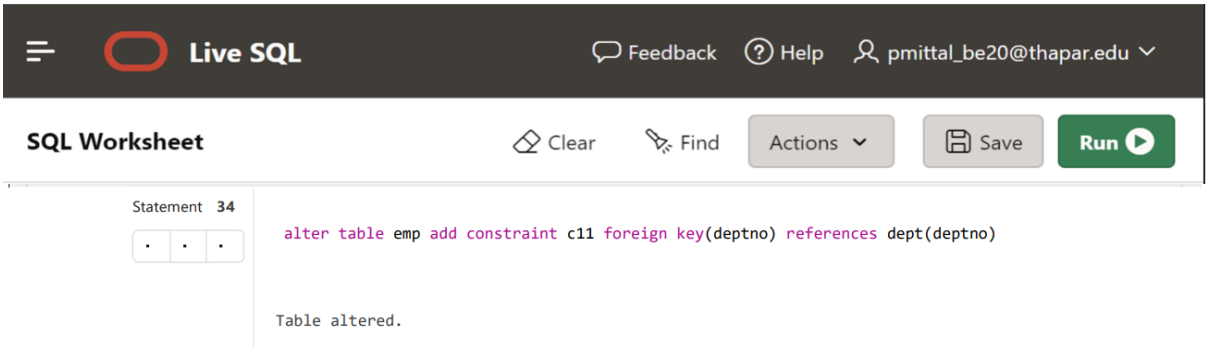
Q4) Drop the Foreign Key constraint on DEPTNO

```
alter table emp drop constraint c2
```



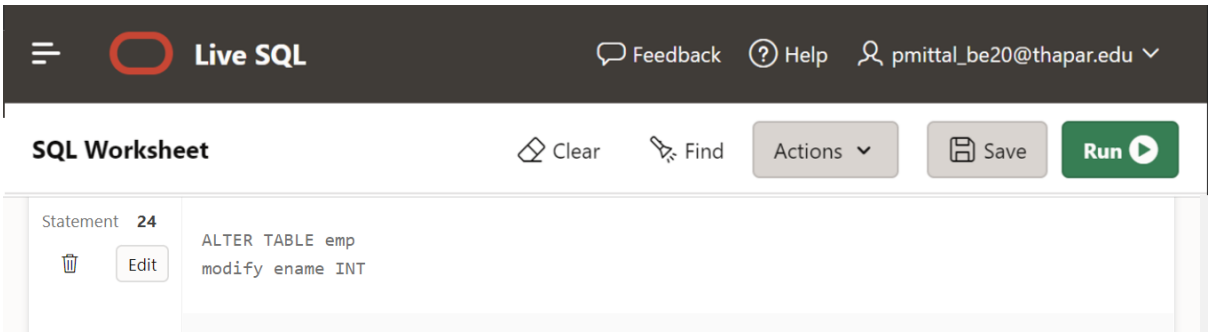
Q5) Add Foreign Key constraint on DEPTNO

```
alter table emp add constraint c11 foreign key(deptno)
references dept(deptno)
```



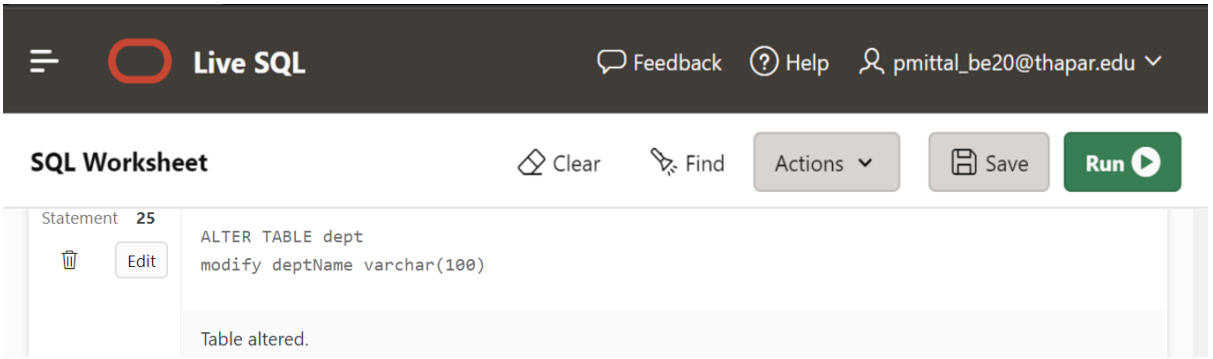
Q6) Change Data type of ENAME

```
ALTER TABLE emp
modify ename INT
```



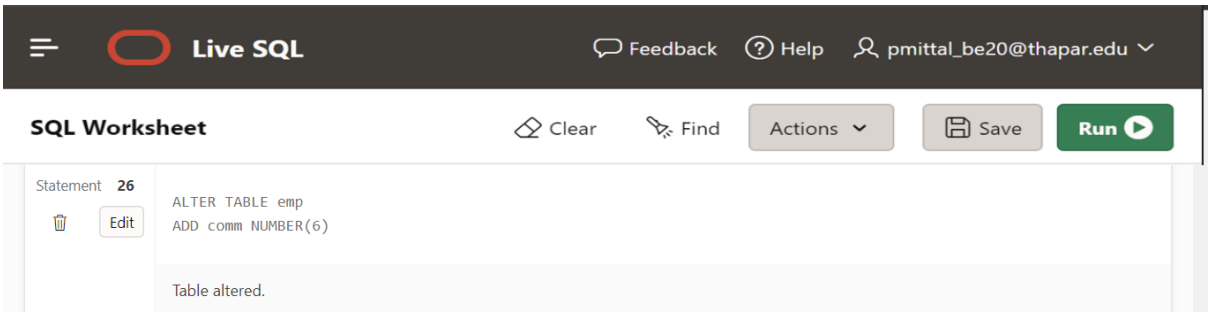
Q7) Change width of DNAME

```
ALTER TABLE dept
modify deptName varchar(100)
```



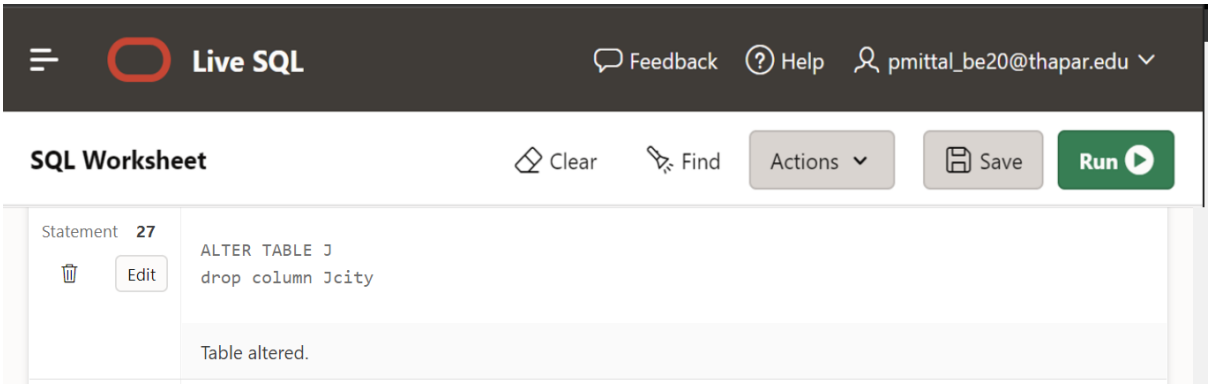
Q8) Add COMM column in EMP table

```
ALTER TABLE emp
ADD comm NUMBER(6)
```



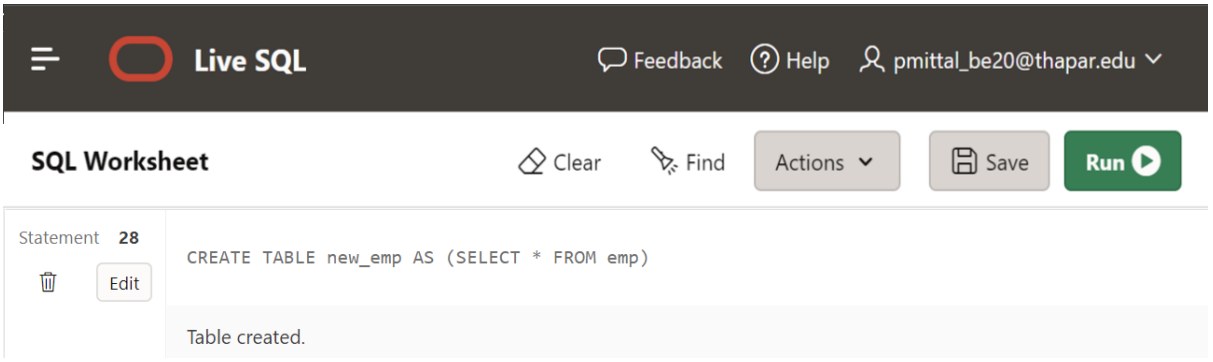
Q9) Drop CITY column from J table

```
ALTER TABLE J
drop column Jcity
```



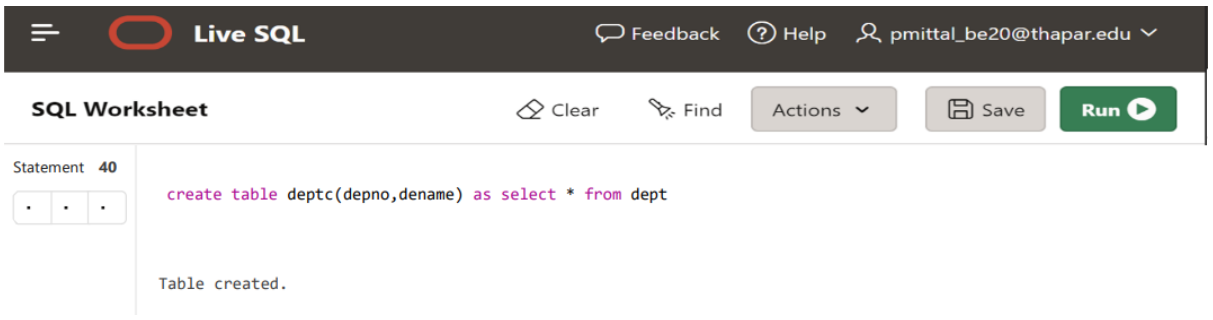
Q10) Create duplicate copy of EMP table

```
CREATE TABLE new_emp AS (SELECT * FROM emp)
```



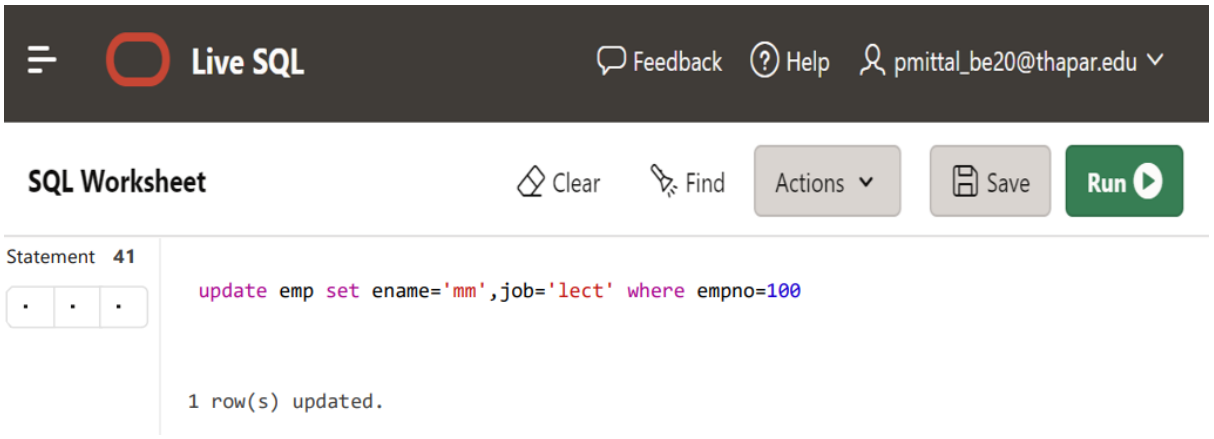
Q11) Copy structure of DEPT table in another table with different column names

```
create table deptc(depno,dename) as select * from dept
```



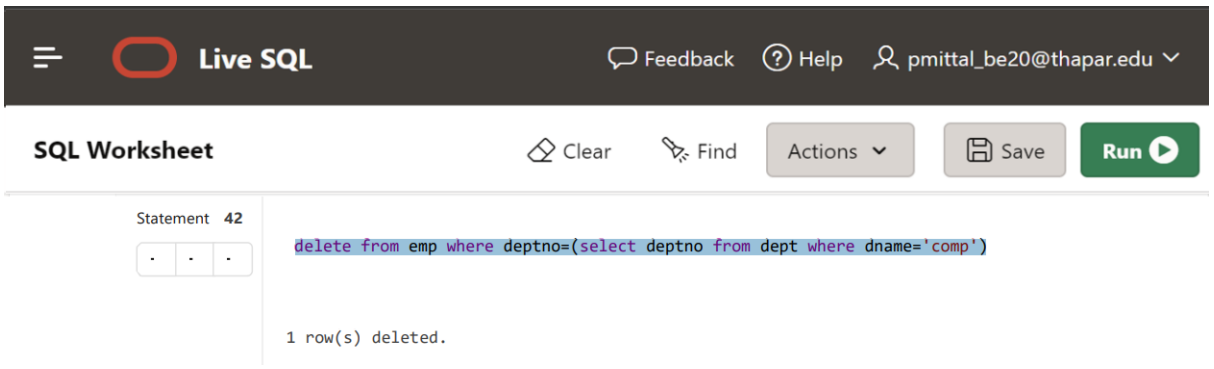
Q12) Change the name and job of the employee whose EMPNO =100

```
update emp set ename='mm',job='lect' where empno=100
```



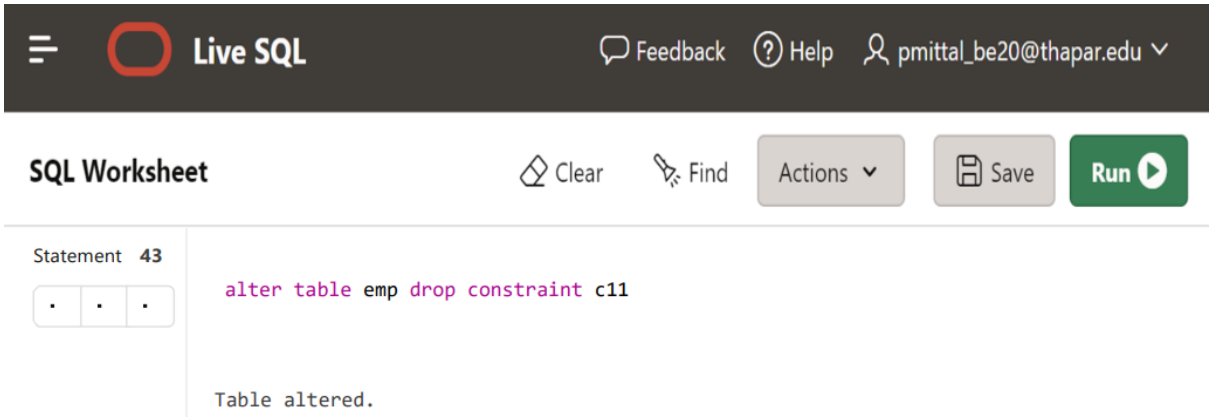
Q13) Delete the record of employee who belong to computer department

```
delete from emp where deptno=(select deptno from dept where dname='comp')
```



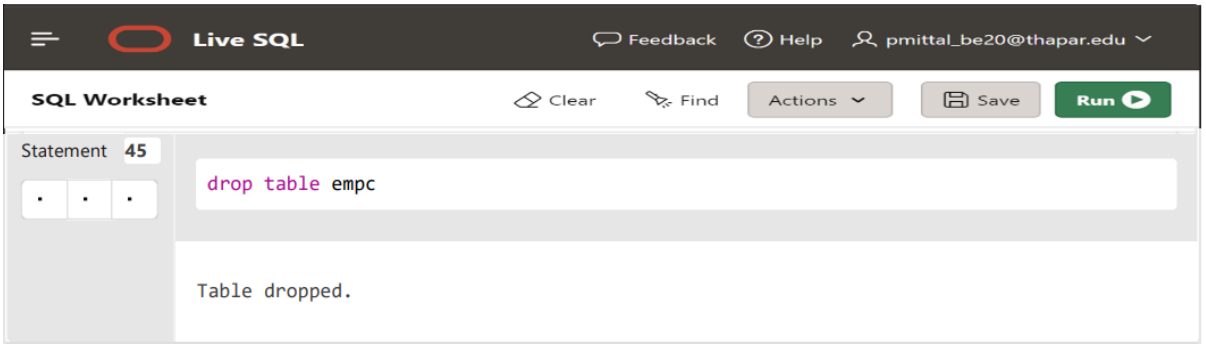
Q14) Drop DEPT Table

```
alter table emp drop constraint c11
drop table dept
```



Q15) Drop duplicate table of EMP table

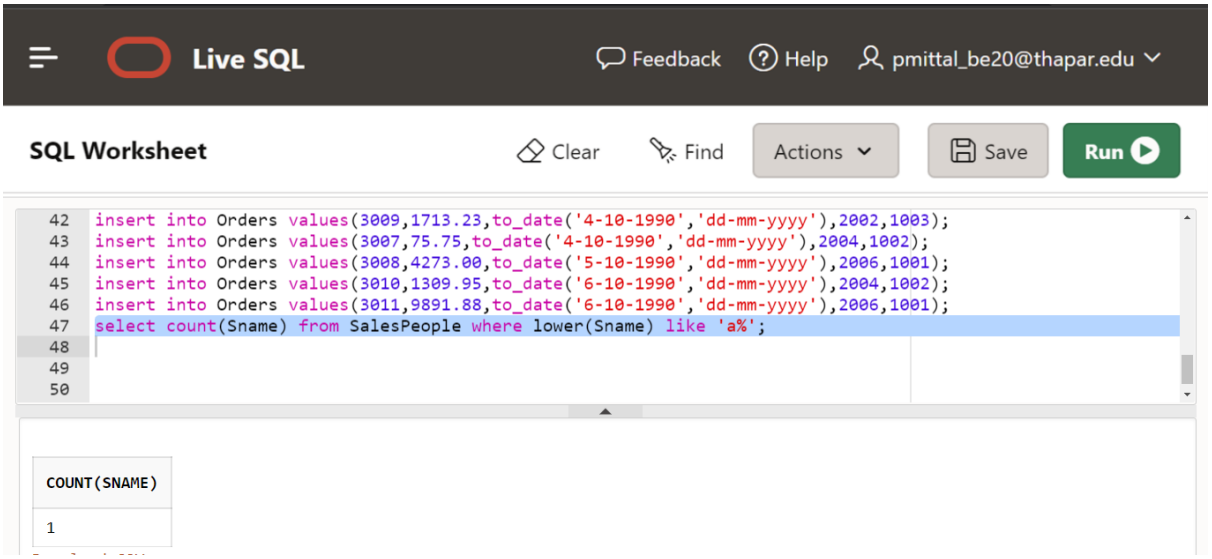
drop table empc



Assignment 7

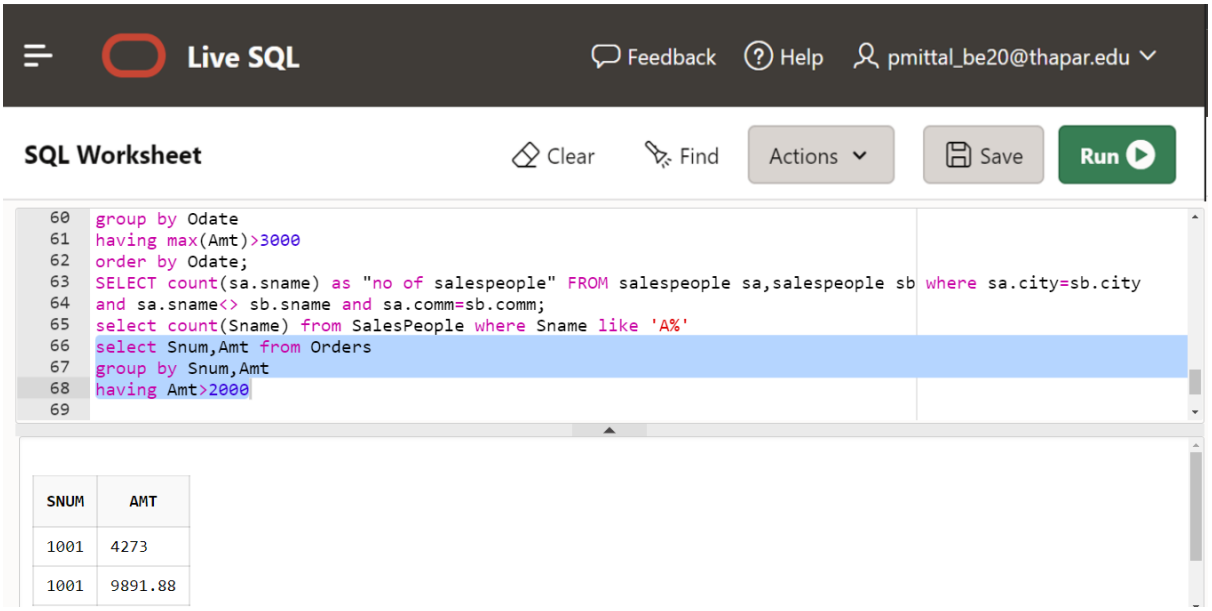
1) Count the number of Salesperson whose name begin with 'a'/'A'.

```
select count(Sname) from SalesPeople where lower(Sname) like 'a%';
```



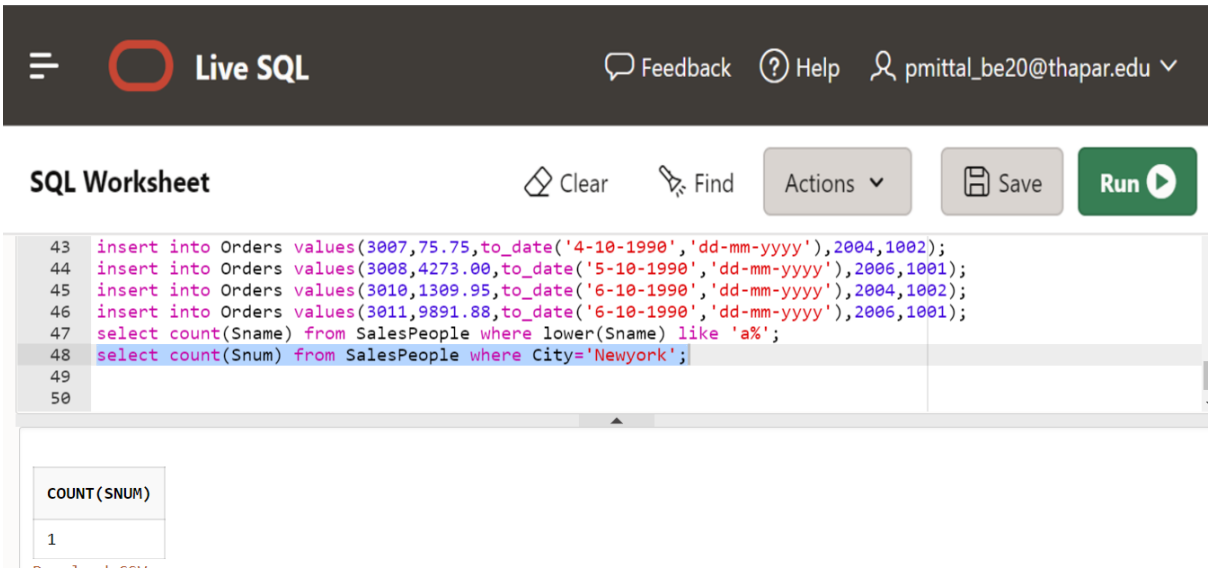
2) Display all the Salesperson whose all orders worth is more than Rs. 2000.

```
select Snum,Amt from Orders
group by Snum,Amt
having Amt>2000
```



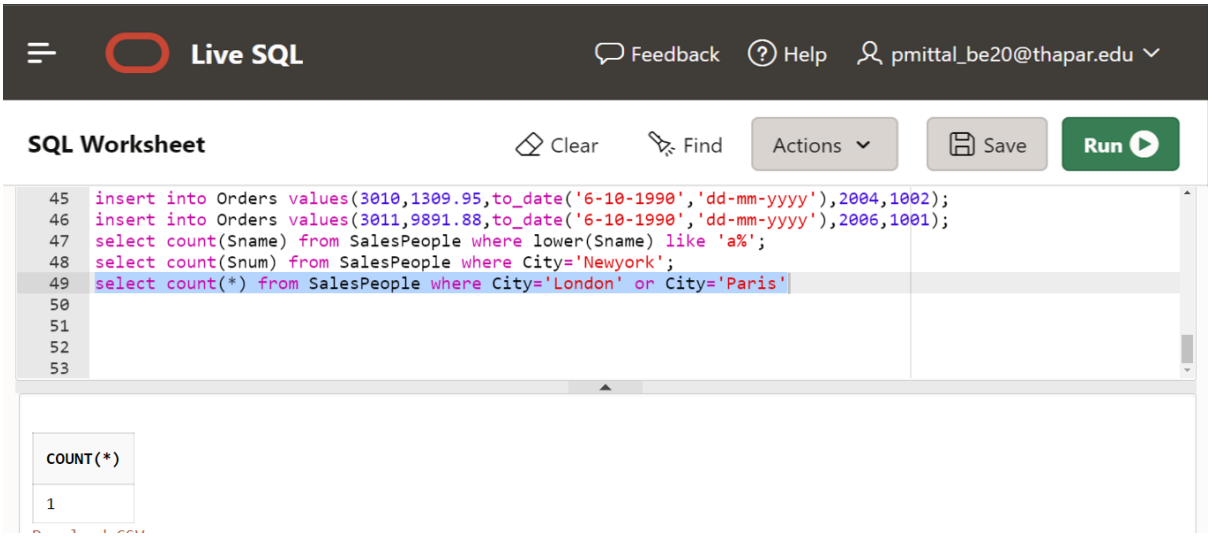
3) Count the number of Salesperson belonging to Newyork.

```
select count(Snum) from SalesPeople where City='Newyork';
```



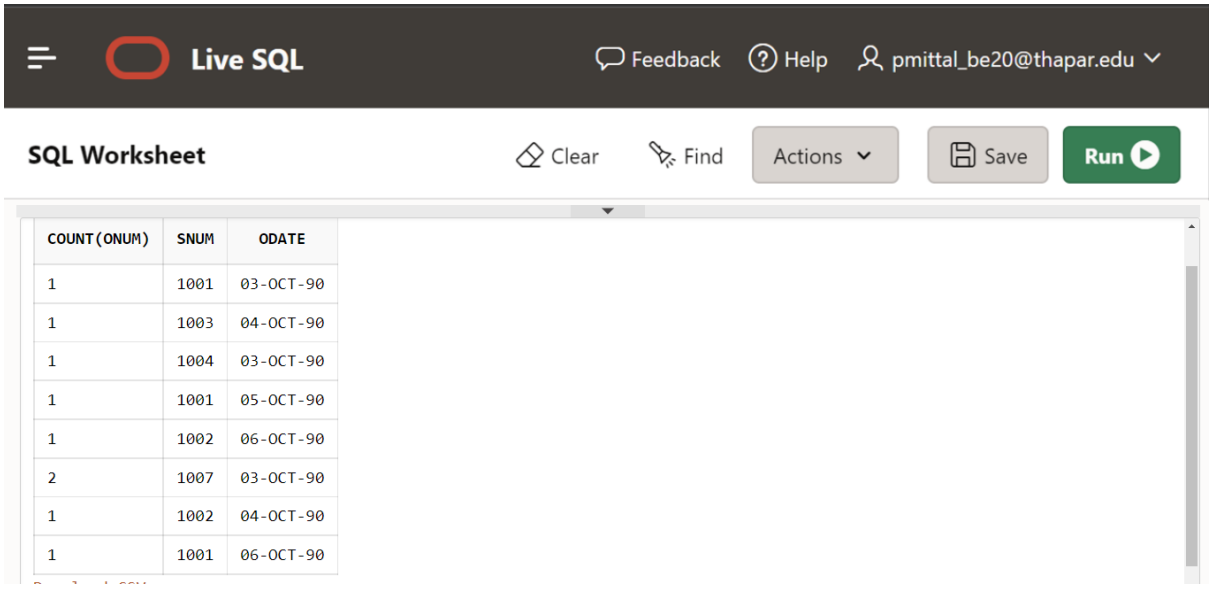
4) Display the number of Salespeople belonging to Landon and belonging to Paris.

```
select count(*) from SalesPeople where City='London' or
City='Paris'
```



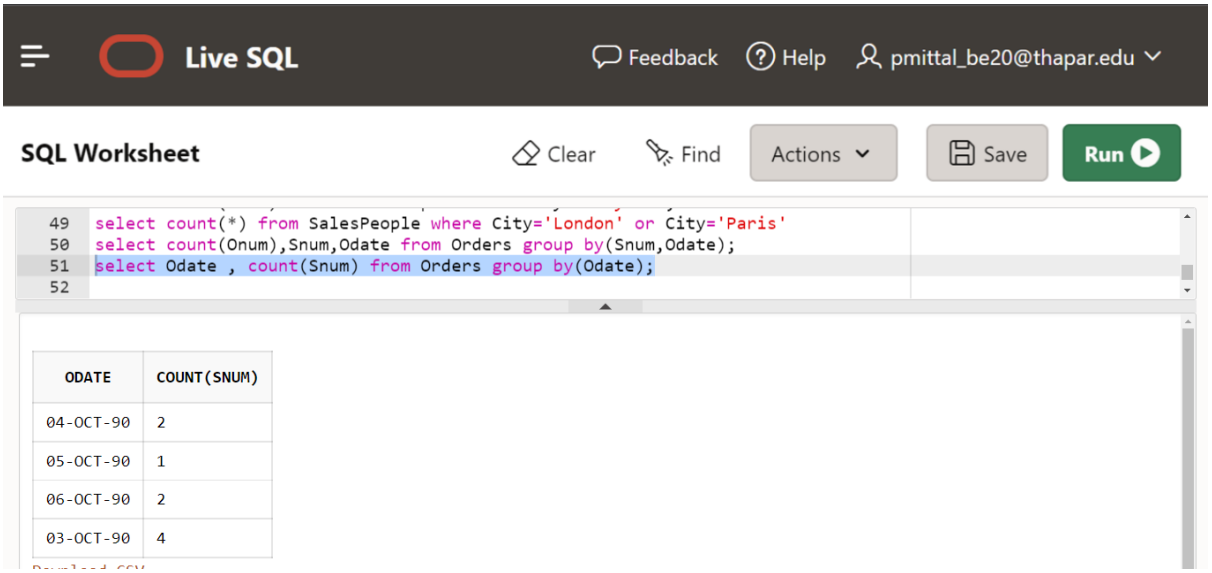
5) Display the number of orders taken by each Salesperson and their date of orders.

```
select count(Onum),Snum,Odate from Orders group
by(Snum,Odate);
```



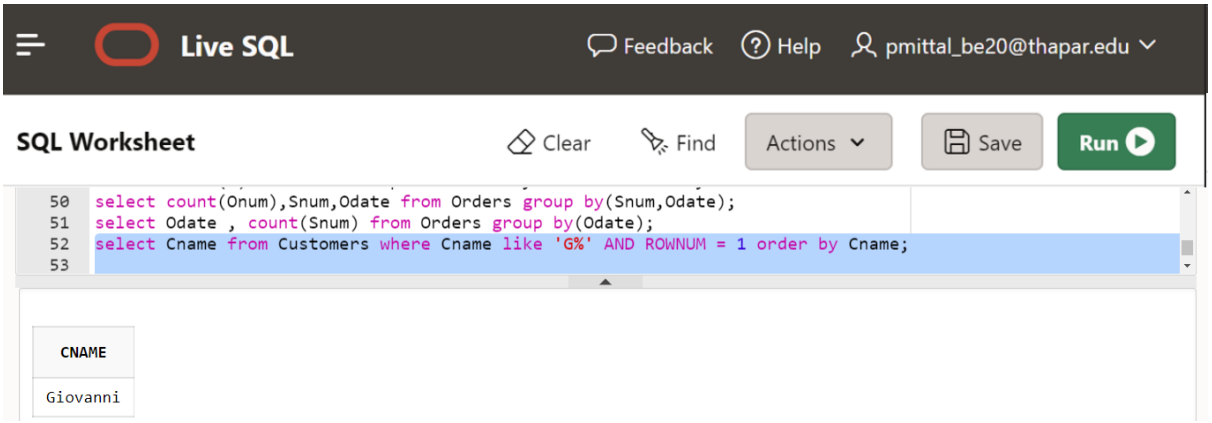
6) Write a query that counts the number of Salespeople registering orders for each day.

```
select count(Onum),Snum,Odate from Orders group
by(Snum,Odate);
```



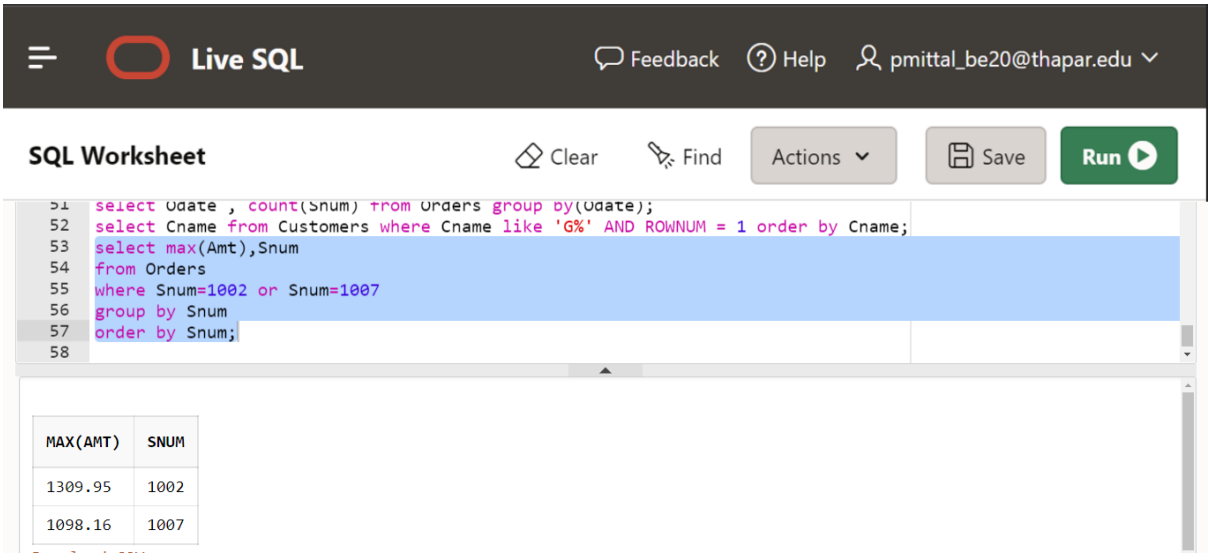
7) Write a query that selects the first customer in alphabetical order , whose name begins with 'G'.

```
select Cname from Customers where Cname like 'G%' AND ROWNUM
= 1 order by Cname;
```



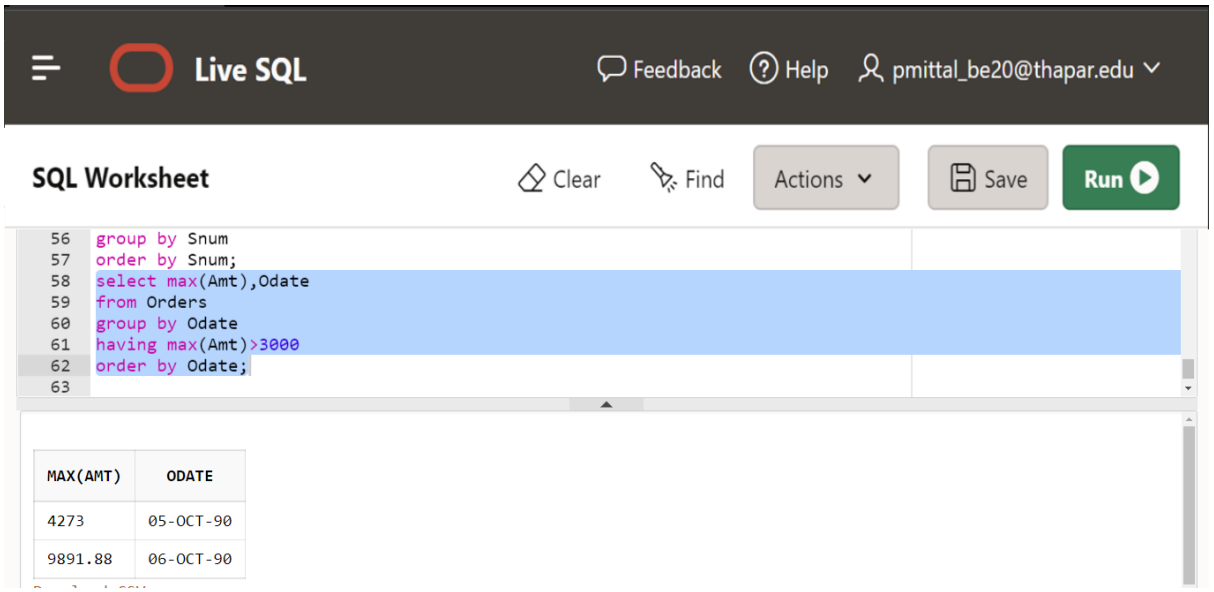
8) Find out the largest orders for Snum 1002 & 1007.

```
select max(Amt),Snum
from Orders
where Snum=1002 or Snum=1007
group by Snum
order by Snum;
```



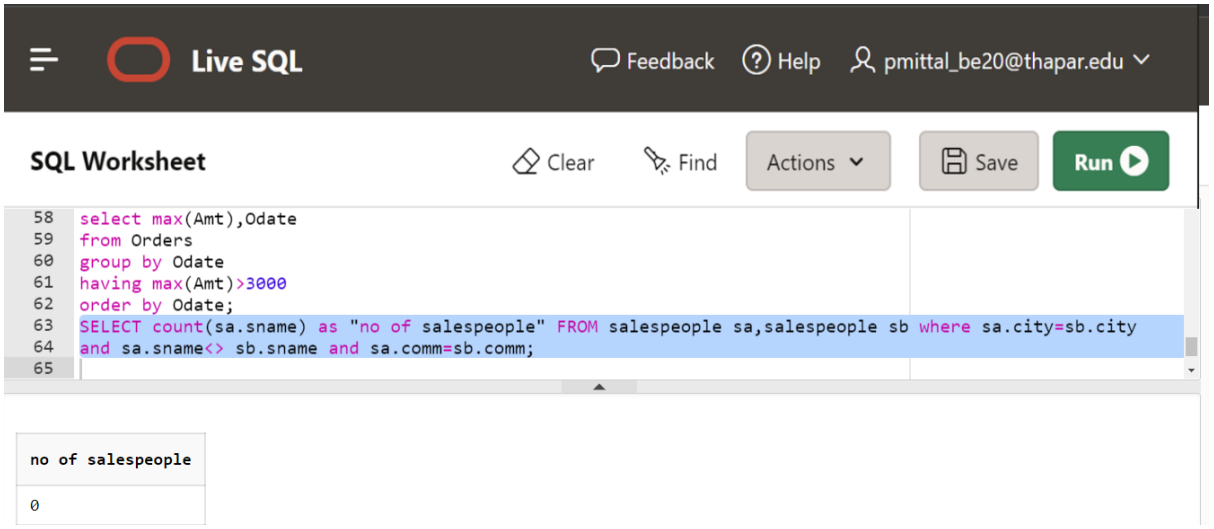
9) Find out the maximum single order amount of a Salesperson over Rs. 3000 in a day.

```
select max(Amt),Odate
from Orders
group by Odate
having max(Amt)>3000
order by Odate;
```



10) Find out the no. of Salesperson who belongs to same city and have same commission percentage

```
SELECT count(sa.sname) as "no of salespeople" FROM
salespeople sa,salespeople sb where sa.city=sb.city
and sa.sname<> sb.sname and sa.comm=sb.comm;
```

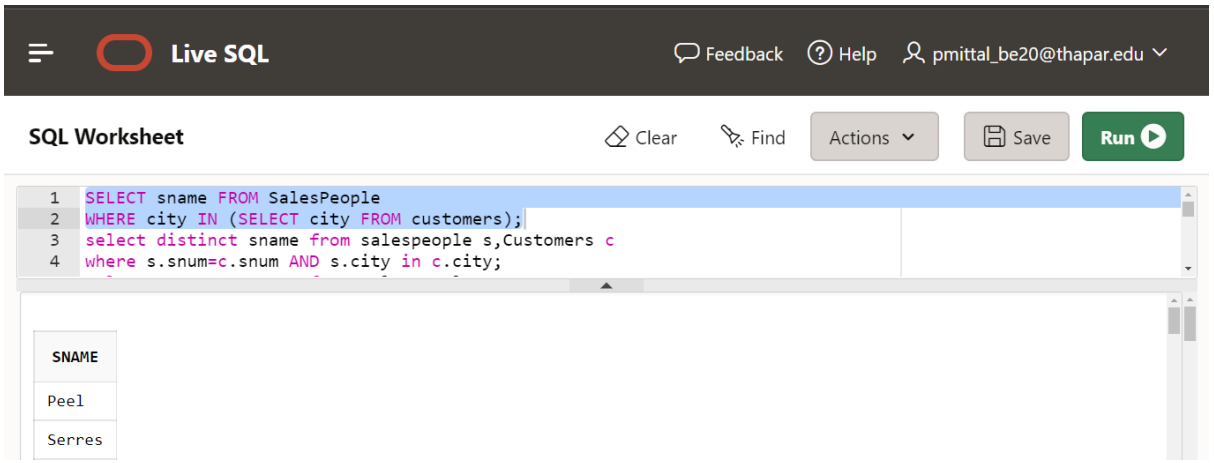


no of salespeople
0

Assignment-8

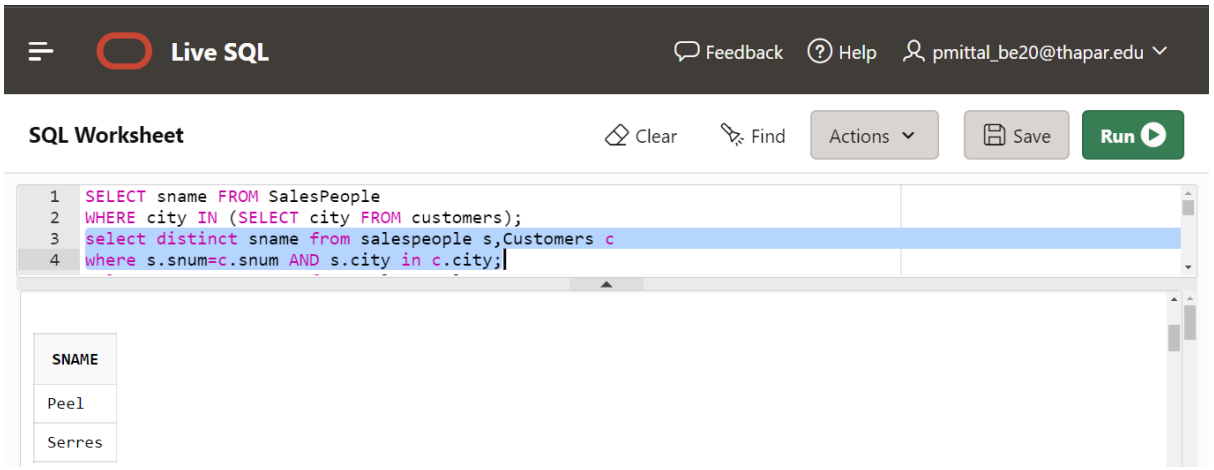
1-Find those salesperson name who live in any one of the city of customers (do it both with sub-query and join)

```
SELECT sname FROM SalesPeople
WHERE city IN (SELECT city FROM customers);
```



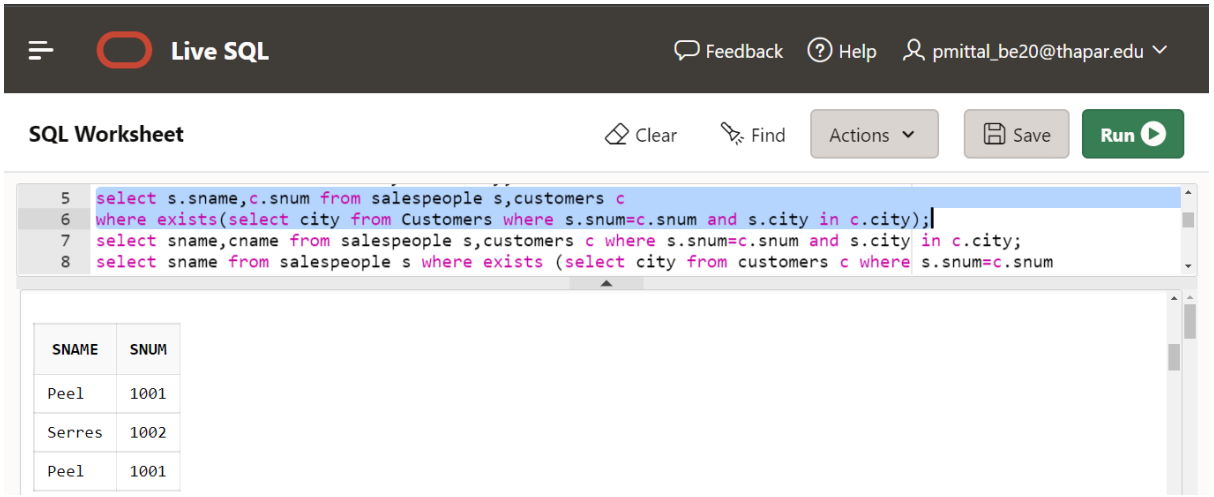
2-Find those salesperson name,customers name who belong to any one of the cty of customers (do it both with sub-query and join)

```
select distinct sname from salespeople s,Customers c
where s.snum=c.snum AND s.city in c.city;
```



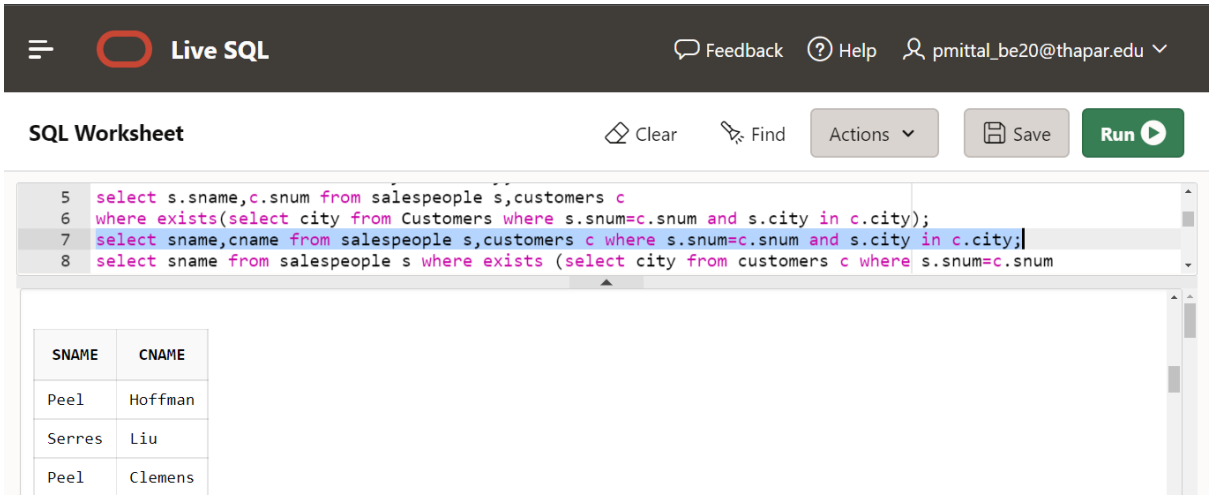
3-Find those salesperson name who belong to the city of their customer (do it both with sub-query and join)

```
select s.sname,c.snum from salespeople s,customers c
where exists(select city from Customers where
s.snum=c.snum and s.city in c.city);
```



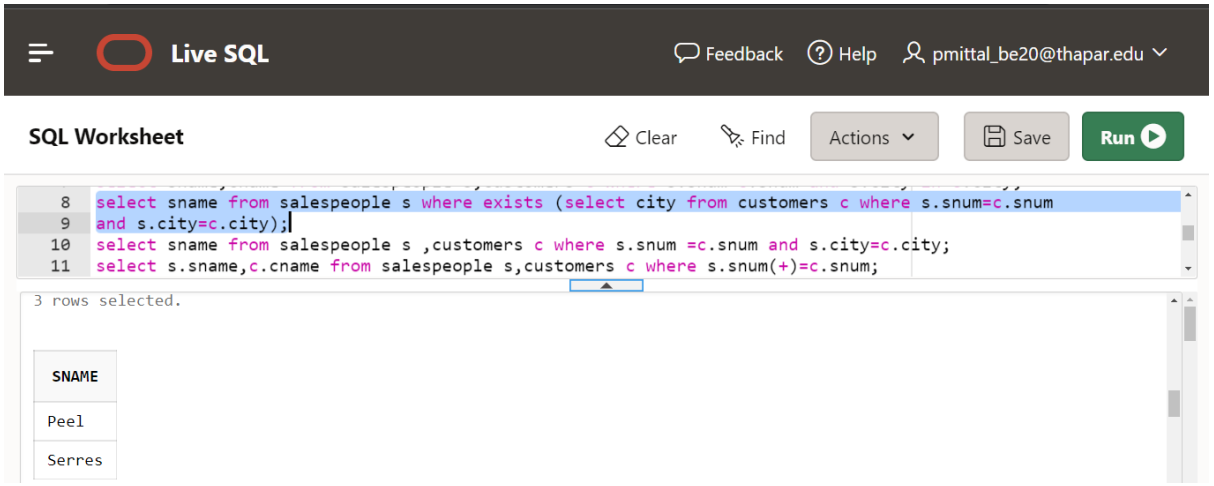
4-Find those salesperson name who belong to the city of their customer (do it with co-related sub-query)

```
select sname,cname from salespeople s,customers c where
s.snum=c.snum and s.city in c.city;
```



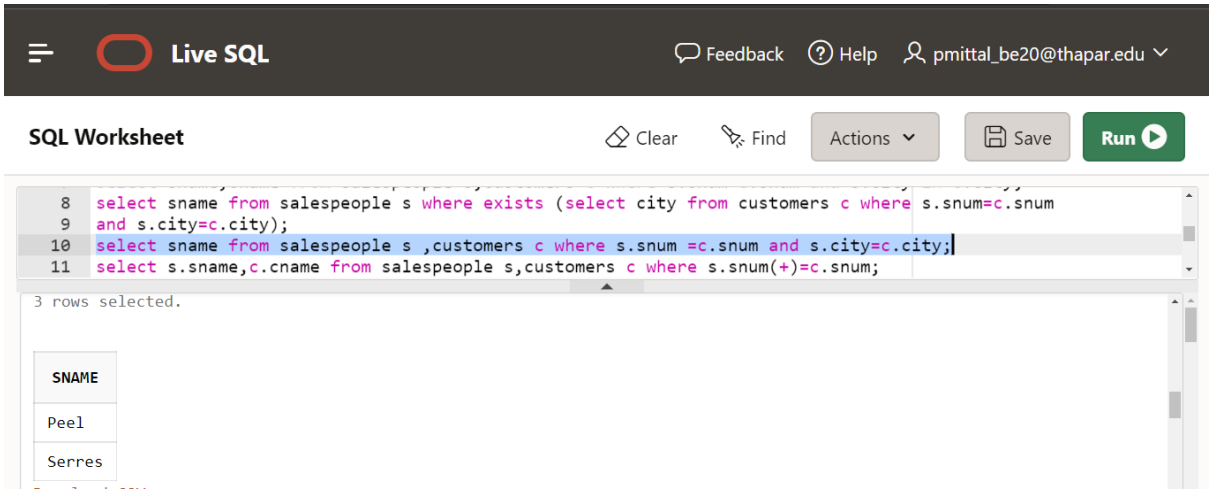
5-Find those salesperson name,customer name where salesperson is assigned/not assigned to any customer

```
select sname from salespeople s where exists (select city
from customers c where s.snum=c.snum
and s.city=c.city);
```



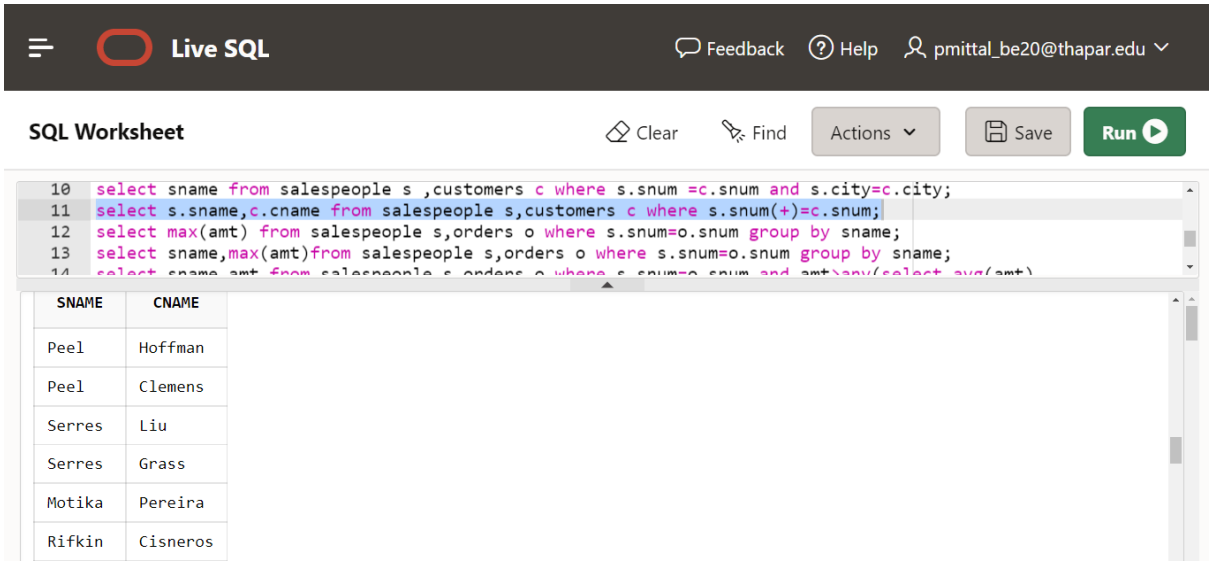
6-Find those customer name who is not assigned to any salesperson

```
select sname from salespeople s ,customers c where s.snum
=c.snum and s.city=c.city;
```



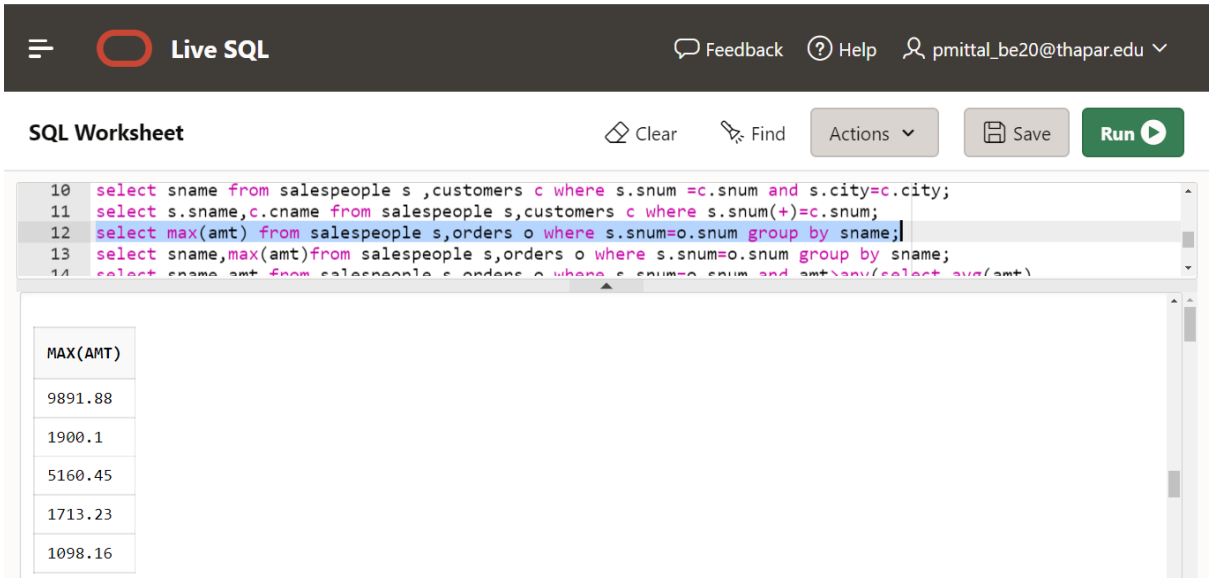
7-Find the highest order of each salesperson

```
select s.sname,c.cname from salespeople s,customers c
where s.snum(+)=c.snum;
```



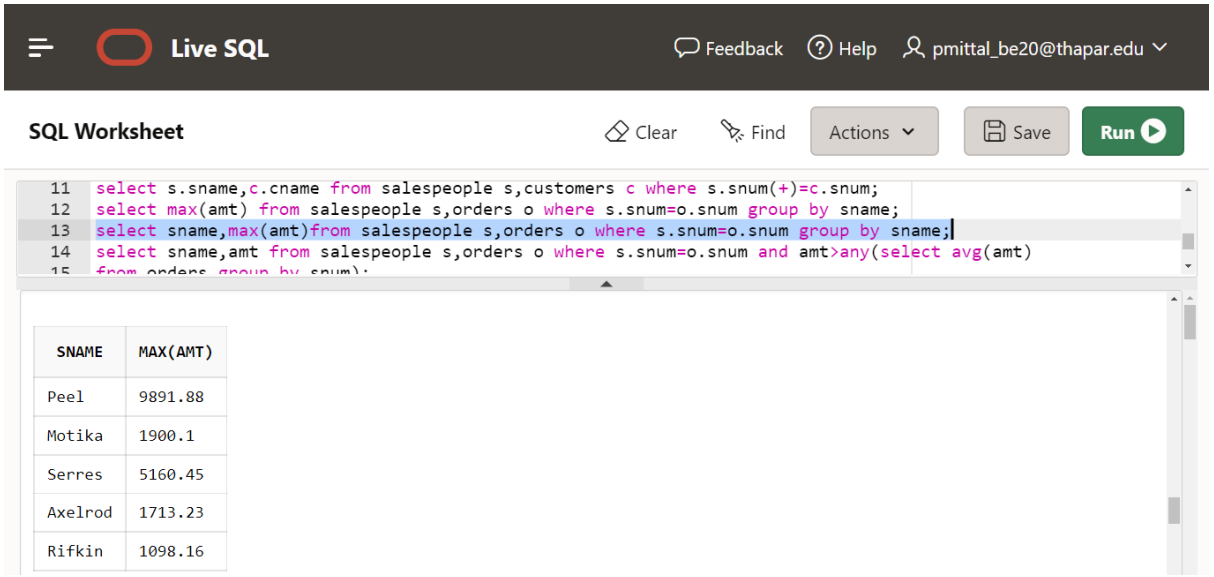
8-Find the names of salesperson and their highest order

```
select max(amt) from salespeople s,orders o where
s.snum=o.snum group by sname;
```



9-Find those orders of salesperson which is more than his average orders

```
select sname,max(amt)from salespeople s,orders o where
s.snum=o.snum group by sname;
```



10-List those salesperson who has more than two customers. (use all 3 methods)

```
select sname,amt from salespeople s,orders o where
s.snum=o.snum and amt>any(select avg(amt)
from orders group by snum);
```