Name : Patel anuj E.no.: 20012011077

Class: CE-3AB2

PRACTICAL: 5

TABLE: SALESMEN

| Column Name | Data Type | Size | Attributes |
|----------------|-----------|------|--|
| SNUM | Varchar2 | 6 | Primary key/first letter must start with 'S' |
| SNAME | Varchar2 | 20 | Not null |
| CITY | Varchar2 | 15 | |
| COMM | Number | 5,2 | |

| SNUM | SNAME | CITY | COMM |
|-------|--------|-----------------|------|
| S1001 | Piyush | Piyush London | |
| S1002 | Niraj | Niraj San jose | |
| S1003 | Miti | London | 0.11 |
| S1004 | Rajesh | Barcelona | 0.15 |
| S1005 | Haresh | Haresh New york | |
| S1006 | Ram | Bombay | 0.10 |
| S1007 | Nehal | Delhi | 0.09 |

create table salesmen(snum varchar2(6) primary key check(snum like'S%'), sname varchar2(20) not null, city varchar2(15), comm number(5,2)) insert into salesmen values('S1001','Piyush','London',0.12) insert into salesmen values('S1002','Niraj','San jose',0.13) insert into salesmen values('S1003','Miti','London',0.11) insert into salesmen values('S1004','Rajesh','Barcelona',0.15) insert into salesmen values('S1005','Haresh','New york',0.10) insert into salesmen values('S1006','Ram','Bombay',0.10) insert into salesmen values('S1007','Nehal','Delhi',0.09) select *from salesmen

create table salesmen(snum varchar2(6) primary key check(snum like'S%'), sname varchar2(20) not null, city varchar2(15), Results Explain Describe Saved SQL History Table created. 0.03 seconds insert into salesmen values('S1001','Piyush','London',0.12) Results Explain Describe Saved SQL History 1 row(s) inserted. 0.00 seconds insert into salesmen values('S1002','Niraj','San jose',0.13) Results Explain Describe Saved SQL History 1 row(s) inserted. 0.00 seconds insert into salesmen values('S1003','Miti','London',0.11) Results Explain Describe Saved SQL History 1 row(s) inserted.

anuj patel

20012011077

```
insert into salesmen values('S1003','Miti','London',0.11)
insert into salesmen values('S1004','Rajesh','Barcelona',0.15)
Results Explain Describe Saved SQL History
1 row(s) inserted.
insert into salesmen values('S1005','Haresh','New york',0.10)
Results Explain Describe Saved SQL History
1 row(s) inserted.
insert into salesmen values('S1006','Ram','Bombay',0.10)
         Explain Describe Saved SQL History
Results
1 row(s) inserted.
insert into salesmen values('S1007','Nehal','Delhi',0.09)
Results Explain Describe Saved SQL History
1 row(s) inserted.
```

anuj patel

20012011077

select *from salesmen

Results Explain Describe Saved SQL History

| SNUM | SNAME | CITY | COMM |
|-------|--------|-----------|------|
| S1001 | Piyush | London | .12 |
| S1002 | Niraj | San jose | .13 |
| S1003 | Miti | London | .11 |
| S1004 | Rajesh | Barcelona | .15 |
| S1005 | Haresh | New york | .1 |
| S1006 | Ram | Bombay | .1 |
| S1007 | Nehal | Delhi | .09 |

7 rows returned in 0.02 seconds

CSV Export

TABLE: CUSTOMER

| Column Name | Data Type | Size | Attributes |
|----------------|-----------|------|--|
| CNUM | Varchar2 | 6 | Primary key/first letter must start with 'C' |
| CNAME | Varchar2 | 20 | Not null |
| CITY | Varchar2 | 15 | |
| RATING | Number | 5 | |
| SNUM | Varchar2 | 6 | |

| CNUM | CNAME | CITY | RATING | SNUM |
|-------|---------|----------|--------|-------|
| C2001 | Hardik | London | 100 | S1001 |
| C2002 | Geeta | Rome | 200 | S1003 |
| C2003 | Kavish | San jose | 200 | S1002 |
| C2004 | Dhruv | Berlin | 300 | S1002 |
| C2005 | Pratham | London | 100 | S1001 |
| C2006 | Vyomesh | San jose | 300 | S1007 |
| C2007 | Kirit | Rome | 100 | S1004 |

create table customer(cnum varchar2(6) primary key check(cnum like'C%'), cname varchar2(20) not null, city varchar2(15), rating number(5), snum varchar2(6)) insert into customer values('C2001','Hardik','London',100,'S1001') insert into customer values('C2002','Geeta','Rome',200,'S1003') insert into customer values('C2003','Kavish','San jose',200,'S1002') insert into customer values('C2004','Dhruv','Berlin',300,'S1002')

insert into customer values('C2005','Pratham','London',100,'S1001') insert into customer values('C2006','Vyomesh','San jose',300,'S1007') insert into customer values('C2007','Kirit','Rome',100,'S1004') select *from customer

| | tomer(cnum varcha | | | like'C%'), | cname varchar | 2(20) not | nul |
|------------------|--------------------|-----------------|------------|------------|---------------|-----------|-----|
| city varchar2(15 |), rating number | r(5), snum varc | nar2(6)) | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Results Explain | Describe Saved SQL | History | | | | | |
| _ | | | | | | | |
| | | | | | | | |
| Table created. | | | | | | | |
| | | | | | | | |
| | | (100000 | | | | | |
| nsert into | customer val | lues('C2001 | ','Hardik' | , London | ',100,'S10 | 901') | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Results Expla | ain Describe | Saved SQL | History | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| row(s) inse | erted. | | | | | | |
| | | | | | | | |
| nsert into | customer val | ues('C2002 | ' 'Geeta' | 'Rome' 2 | 90 '51993' |) | |
| inder e zneo | ous comer val | .ucs(c2502 | , deced , | Rome j2 | 30, 31005 | / | |
| | | | | | | | |
| Results Expla | ain Describe | Saved SQL | History | | | | |
| | | | | | | | |
| | | | | | | | |

anuj patel 20012011077

1 row(s) inserted.

```
insert into customer values('C2003','Kavish','San jose',200,'S1002')
Results Explain Describe Saved SQL History
1 row(s) inserted.
insert into customer values('C2004','Dhruv','Berlin',300,'S1002')
Results Explain Describe Saved SQL History
1 row(s) inserted.
insert into customer values('C2005','Pratham','London',100,'S1001')
Results Explain Describe Saved SQL History
1 row(s) inserted.
insert into customer values('C2006','Vyomesh','San jose',300,'S1007')
Results Explain Describe Saved SQL History
1 row(s) inserted.
 insert into customer values('C2007','Kirit','Rome',100,'S1004')
  Results Explain Describe Saved SQL History
 1 row(s) inserted.
```

select *from customer

Results Explain Describe Saved SQL History

| CNUM | CNAME | CITY | RATING | SNUM |
|-------|---------|----------|--------|-------|
| C2001 | Hardik | London | 100 | S1001 |
| C2002 | Geeta | Rome | 200 | S1003 |
| C2003 | Kavish | San jose | 200 | S1002 |
| C2004 | Dhruv | Berlin | 300 | S1002 |
| C2005 | Pratham | London | 100 | S1001 |
| C2006 | Vyomesh | San jose | 300 | S1007 |
| C2007 | Kirit | Rome | 100 | S1004 |

7 rows returned in 0.02 seconds CSV Export

TABLE: ORDER

| Column Name | Data Type | Size | Attributes |
|----------------|-----------|------|--|
| ONUM | Varchar2 | 6 | Primary key/first letter must start with 'O' |
| AMT | Number | 10,2 | Not null |
| ODATE | Date | | |
| CNUM | Varchar2 | 6 | |
| SNUM | Varchar2 | 6 | |

| ONUM | AMT | ODATE | CNUM | SNUM |
|-------|---------|-------------|-------|-------|
| 03001 | 18.69 | 10-Mar-90 | C2008 | S1007 |
| O3003 | 767.19 | 10-Mar-90 | C2001 | S1001 |
| 03002 | 1900.10 | 03-Oct-90 | C2007 | S1004 |
| O3005 | 5160.45 | 04-Oct-90 | C2003 | S1002 |
| O3006 | 1098.16 | 10-Mar_90 | C2008 | S1007 |
| O3009 | 1713.23 | 10-April-90 | C2002 | S1003 |
| 03007 | 75.75 | 10-April-90 | C2004 | S1002 |
| O3008 | 4723.00 | 10-May-90 | C2006 | S1001 |
| 03010 | 1309.95 | 10-May-90 | C2004 | S1002 |

| 02011 | 0001 00 | 10 1 00 | COOC | C1001 |
|-------|---------|------------|-------|-------|
| J3011 | 9891.88 | 10-June-90 | C2006 | 51001 |

create table order1(onum varchar2(6) primary key check(onum like'O%'), amt number(10,2) not null, odate date, cnum varchar2(6), snum varchar2(6)) insert into order1 values('O3001',18.69,'10-Mar-90','C2008','S1007') insert into order1 values('O3003',767.19,'10-Mar-90','C2001','S1001') insert into order1 values('O3002',1900.10,'03-Oct-90','C2007','S1004') insert into order1 values('O3005',5160.45,'04-Oct-90','C2003','S1002') insert into order1 values('O3006',1098.16,'10-Mar-90','C2008','S1007') insert into order1 values('O3009',1713.23,'10-April-90','C2002','S1003') insert into order1 values('O3007',75.75,'10-April-90','C2004','S1002') insert into order1 values('O3008',4723.00,'10-May-90','C2006','S1001') insert into order1 values('O3010',1309.95,'10-May-90','C2004','S1002') insert into order1 values('O3011',9891.88,'10-June-90','C2006','S1001') select *from order1

```
create table order1(onum varchar2(6) primary key check(onum like'0%'), amt number(10,2) not null, odate date, cnum varchar2(6), snum varchar2(6))

Results Explain Describe Saved SQL History

Table created.

insert into order1 values('03001',18.69,'10-Mar-90','C2008','S1007')

Results Explain Describe Saved SQL History

1 row(s) inserted.
```

```
insert into order1 values('03003',767.19,'10-Mar-90','C2001','S1001')
 Results Explain Describe Saved SQL History
1 row(s) inserted.
insert into order1 values('03002',1900.10,'03-Oct-90','C2007','S1004')
Results Explain Describe Saved SQL History
1 row(s) inserted.
insert into order1 values('03005',5160.45,'04-Oct-90','C2003','S1002')
 Results Explain Describe Saved SQL History
1 row(s) inserted.
  insert into order1 values('03006',1098.16,'10-Mar-90','C2008','S1007
  Results Explain Describe Saved SQL History
 1 row(s) inserted.
  insert into order1 values('03009',1713.23,'10-April-90','C2002','S1003'
  Results Explain Describe Saved SQL History
 1 row(s) inserted.
```

insert into order1 values('03007',75.75,'10-April-90','C2004','S1002') Results Explain Describe Saved SQL History 1 row(s) inserted. insert into order1 values('03008',4723.00,'10-May-90','C2006','S1001') Results Explain Describe Saved SQL History 1 row(s) inserted. insert into order1 values('03010',1309.95,'10-May-90','C2004','S1002') Results Explain Describe Saved SQL History 1 row(s) inserted. insert into order1 values('03011',9891.88,'10-June-90','C2006','S1001') Results Explain Describe Saved SQL History 1 row(s) inserted.

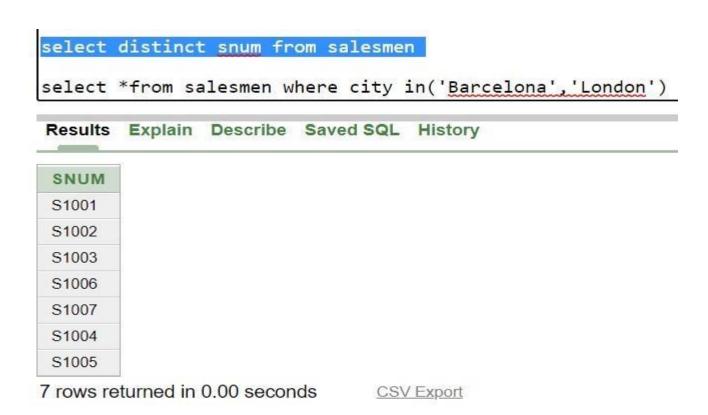
select *from order1

| Results | Explain | Describe | Saved SQL | History |
|-----------|------------|------------|--------------|-----------|
| | | | | |
| ONUM | AMT | ODATE | CNUM | SNUM |
| O3001 | 18.69 | 10-MAR-90 | C2008 | S1007 |
| O3003 | 767.19 | 10-MAR-90 | C2001 | S1001 |
| O3002 | 1900.1 | 03-OCT-90 | C2007 | S1004 |
| O3005 | 5160.45 | 04-OCT-90 | C2003 | S1002 |
| O3006 | 1098.16 | 10-MAR-90 | C2008 | S1007 |
| O3009 | 1713.23 | 10-APR-90 | C2002 | S1003 |
| O3007 | 75.75 | 10-APR-90 | C2004 | S1002 |
| O3008 | 4723 | 10-MAY-90 | C2006 | S1001 |
| O3010 | 1309.95 | 10-MAY-90 | C2004 | S1002 |
| O3011 | 9891.88 | 10-JUN-90 | C2006 | S1001 |
| 10 rows r | eturned in | 0.51 secor | nds <u>C</u> | SV Export |

Perform following queries. 1. Write a select command that produces the rating followed by the name of each customer in SAN JOSE. select rating, cname from customer where city='San jose'



2. Display SNUM values of all salesmen without any repeat. select distinct snum from salesmen



3. Display all salesmen that were located in either BARCELONA or LONDON(use IN keyword).

select *from salesmen where city in('Barcelona','London')

select *from salesmen where city in('Barcelona','London') Results Explain Describe Saved SQL History SNAME COMM SNUM CITY S1001 Piyush London .12 S1003 Miti London .11 S1004 Rajesh Barcelona .15

3 rows returned in 0.64 seconds CSV Export

4. Display all salesmen with commission between 0.10 and 0.12. select

*from salesmen where comm between 0.10 and 0.12



| Results | Explain | Describe | Saveu SQL |
|---------|---------|----------|-----------|
| SNUM | SNAME | CITY | СОММ |
| S1001 | Piyush | London | .12 |
| S1003 | Miti | London | .11 |
| S1005 | Haresh | New york | ,1 |
| S1006 | Ram | Bombay | .1 |

4 rows returned in 0.00 seconds

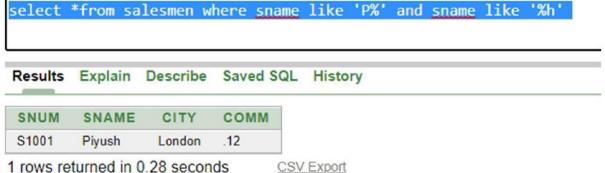
CSV Export

History

5. List all the customers whose name's third latter is 'R'. select *from customer where cname like '__r%'



6. List all salesmen whose sname start with letter 'P' and end letter is 'H'. select *from salesmen where sname like 'P%' and sname like '%h'



7. Find all records in customer table with NULL values in the city column. select *from customer where city = Null



8. Write a two queries that will produce all orders taken on October 3rd or 4th ,1990 (Use BETWEEN operator) select *from order1 where odate between '03-Oct-90' and '04-Oct-90'



9. Write a query that selects all orders without ZEROS or NULLS in amt field..

select *from order1 where amt! = 0 or amt! = Null

select *from order1 where amt! = 0 or amt! = Null

| Results | Explain | Describe | Saved SQL | History |
|---------|---------|----------|-----------|---------|
| | | | | |

| ONUM | AMT | ODATE | CNUM | SNUM |
|-------|---------|-----------|-------|-------|
| O3001 | 18.69 | 10-MAR-90 | C2008 | S1007 |
| O3003 | 767.19 | 10-MAR-90 | C2001 | S1001 |
| O3002 | 1900.1 | 03-OCT-90 | C2007 | S1004 |
| O3005 | 5160.45 | 04-OCT-90 | C2003 | S1002 |
| O3006 | 1098.16 | 10-MAR-90 | C2008 | S1007 |
| O3009 | 1713.23 | 10-APR-90 | C2002 | S1003 |
| O3007 | 75.75 | 10-APR-90 | C2004 | S1002 |
| O3008 | 4723 | 10-MAY-90 | C2006 | S1001 |
| O3010 | 1309.95 | 10-MAY-90 | C2004 | S1002 |
| O3011 | 9891.88 | 10-JUN-90 | C2006 | S1001 |

10 rows returned in 0.00 seconds CSV Export

10. To count the numbers of salesmen without duplication in the orders tables.

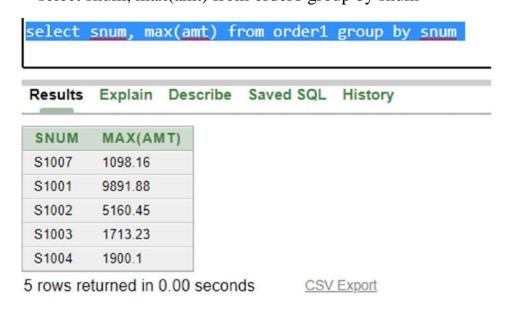
select count(distinct snum)from order1



11. Count the rating of customers (with NULL and without NULL). select count(rating) from customer where rating=null and rating!=null



12. Find the largest order taken by each salesperson.(hint: use group by) select snum, max(amt) from order1 group by snum



13. Find the largest order taken by each salesperson on each date. select snum, odate, max(amt) from order1 group by snum, odate

select snum, odate, max(amt) from order1 group by snum, odate

| Results | Explain | Describe | Saved SQL | History |
|----------|-------------|----------|------------|----------|
| ILCOUITO | IN A PIGUIT | BOOGITOO | SUITCH SHE | LIIOLOLY |

| SNUM | ODATE | MAX(AMT) |
|-------|-----------|----------|
| S1004 | 03-OCT-90 | 1900.1 |
| S1002 | 10-MAY-90 | 1309.95 |
| S1007 | 10-MAR-90 | 1098.16 |
| S1002 | 10-APR-90 | 75.75 |
| S1002 | 04-OCT-90 | 5160.45 |
| S1001 | 10-JUN-90 | 9891.88 |
| S1001 | 10-MAR-90 | 767.19 |
| S1003 | 10-APR-90 | 1713.23 |
| S1001 | 10-MAY-90 | 4723 |

9 rows returned in 0.00 seconds

CSV Export

14. Find out which day had the higher total amount ordered. select odate, max(amt)M from order1 group by odate order by M desc

select odate, max(amt)M from order1 group by odate order by M desc

| esults | Explain | Describe | Saved SQL | History |
|-----------|---------|----------|-----------|---------|
| ODATE | М | | | |
| 10-JUN-90 | 9891.8 | 88 | | |
| 04-OCT-9 | 5160.4 | 45 | | |
| 10-MAY-90 | 4723 | | | |
| 03-OCT-9 | 1900. | 1 | | |
| 10-APR-9 | 1713.2 | 23 | | |
| 10-MAR-9 | 0 1098. | 16 | | |

6 rows returned in 0.01 seconds CSV Export

15. Write a query that counts the number of different non-NULL city in the customer table.

select count(distinct city) from customer where city is not null

Results Explain Describe Saved SQL History

COUNT(DISTINCTCITY)
4

1 rows returned in 0.07 seconds

CSV Export

16. Display all the information in descending orders(use column CNUM). select *from customer order by cnum desc

select *from customer order by cnum desc Explain Describe Saved SQL History Results CNUM CNAME CITY RATING SNUM C2007 Kirit Rome 100 S1004 C2006 Vyomesh 300 San jose S1007 C2005 Pratham London 100 S1001 C2004 300 Dhruv Berlin S1002 C2003 Kavish San jose 200 S1002 C2002 Geeta Rome 200 S1003 C2001 Hardik London 100 S1001

7 rows returned in 0.02 seconds CSV Export

17. Display sname and comm. From salesmen in descending order(in place of column name use column number).

select sname, comm from salesmen order by 2 desc

select sname, comm from salesmen order by 2 desc Results Explain Describe Saved SQL History SNAME COMM .15 Rajesh Niraj .13 Piyush .12 Miti .11 Haresh .1 .1 Ram Nehal .09

7 rows returned in 0.11 seconds

CSV Export

18. Assume each salesperson has a 0.12 commission. Write a query on the orders table that will produce the order number, the salesperson number and the amount of the salesperson's commission for that order. select onum, snum, amt*0.12 from order1

select onum, snum, amt*0.12 from order1 Saved SQL Results Explain Describe History ONUM SNUM AMT*0.12 03001 S1007 2.2428 03003 S1001 92.0628 O3002 S1004 228.012 619.254 O3005 S1002 03006 S1007 131,7792 O3009 S1003 205.5876 03007 S1002 9.09 03008 S1001 566.76 03010 S1002 157.194 03011 S1001 1187.0256

10 rows returned in 0.02 seconds

CSV Export

19. Write a query on the customers table that will find the highest rating in each city. Put the output in this form. For the city (city), the highest rating is: (rating).

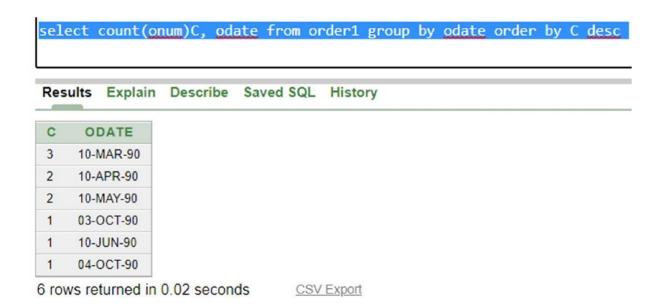
select city "For the city", max(rating)"the highest rating is:" from customer group by city

| Results | Explain | Describe | Saved SQL | History |
|---------|---------|-----------|-----------|---------|
| SNUM | SNAME | CITY | COMM | |
| S1001 | Piyush | London | .12 | |
| S1002 | Niraj | San jose | .13 | |
| S1003 | Miti | London | .11 | |
| S1004 | Rajesh | Barcelona | .15 | |
| S1005 | Haresh | New york | .1 | |
| S1006 | Ram | Bombay | .1 | |
| S1007 | Nehal | Delhi | .09 | |

7 rows returned in 0.02 seconds CSV Export

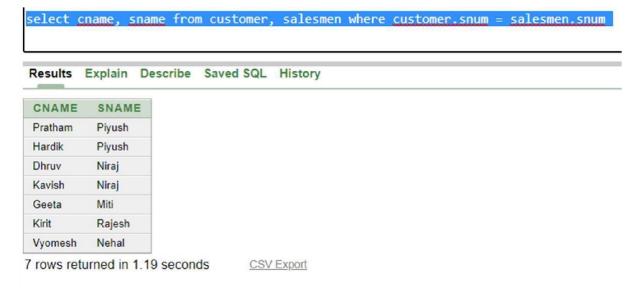
20. Write a query that totals the orders for each day and places the results in descending order.

select count(onum)C, odate from order1 group by odate order by C desc

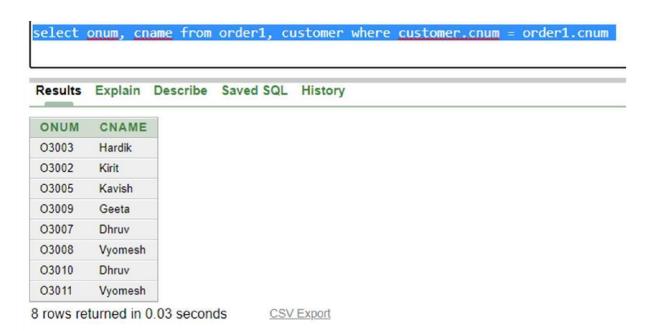


21. Show the names of all customers matched with the salesmen serving them.

select cname, sname from customer, salesmen where customer.snum = salesmen.snum



22. Write a query that lists each order number followed by the name of the customer who made the order. select onum, cname from order1, customer where customer.cnum = order1.cnum



- 23. Write a query that gives the names of both the salesperson and the customer for each order after the order number. select onum, sname, cname from order1, salesmen, customer where order1.snum
- = salesmen.snum and order1.cnum = customer.cnum

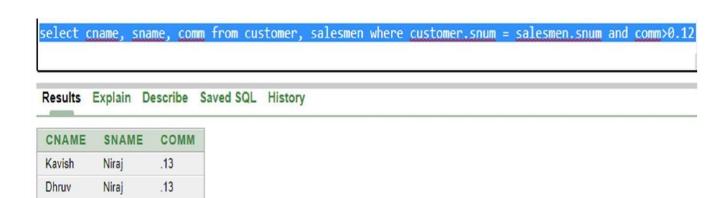


24. Write a query that produces all customers serviced by salesmen with a commission above 0.12. Output the customer's name, the salesperson's

n.

name and the salesperson's rate of commissio

select cname, sname, comm from customer, salesmen where customer.snum = salesmen.snum and comm>0.12



Rajesh 3 rows returned in 0.11 seconds

.15

Kirit

CSV Export

25. Write a query that calculates the amount of the salesperson's commission on each order by a customer with a rating above 100. select salesmen.snum, onum, amt*comm from salesmen, order1, customer where salesmen.snum = order1.snum and order1.cnum = customer.cnum and rating > 100

select <mark>salesmen.snum, onum, amt*comm from</mark> salesmen, order1, customer where <u>salesmen.snum</u> = order1.snum and order1.cnum = customer.cnum and rating > 100 Results Explain Describe Saved SQL SNUM ONUM AMT*COMM O3011 1187.0256 S1001 S1001 O3008 566.76 170.2935 S1002 03010 O3007 9.8475 S1002 S1002 03005 670.8585 S1003 03009 188.4553 6 rows returned in 0.04 seconds **CSV Export**

26. Create a union of two queries that shows the names, cities and ratings of all customers. Those with rating of >=200 should display 'HIGH

RATING' and those with < 200 should display 'LOW RATING'. select cname, city, rating, 'High Rating' from customer where rating >= 200 UNION(select cname, city, rating, 'Low Rating' from customer where rating < 200)



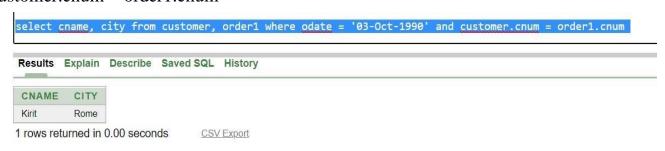
| CNAME | CITY | RATING | 'HIGHRATING' |
|---------|----------|--------|--------------|
| Dhruv | Berlin | 300 | High Rating |
| Geeta | Rome | 200 | High Rating |
| Hardik | London | 100 | Low Rating |
| Kavish | San jose | 200 | High Rating |
| Kirit | Rome | 100 | Low Rating |
| Pratham | London | 100 | Low Rating |
| Vyomesh | San jose | 300 | High Rating |

7 rows returned in 0.06 seconds

CSV Export

27. Find all customers with orders on 3rd october 1990 using correlate sub query.

select cname, city from customer, order1 where odate = '03-Oct-1990' and customer.cnum = order1.cnum



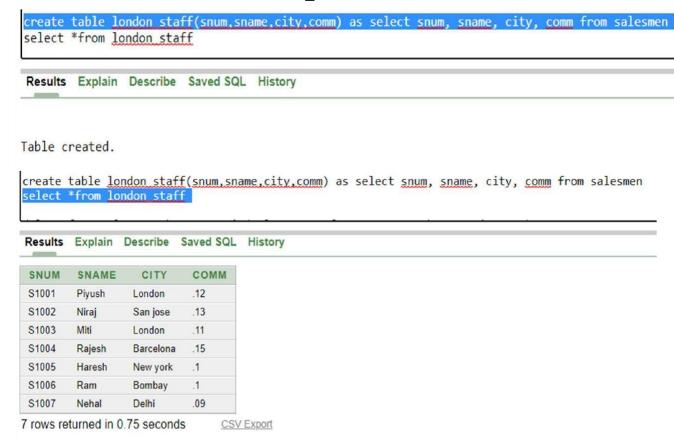
28. Find all customers having rating greater than any customer in 'ROME'.

select *from customer where rating > (select max(rating) from customer where city = 'Rome')



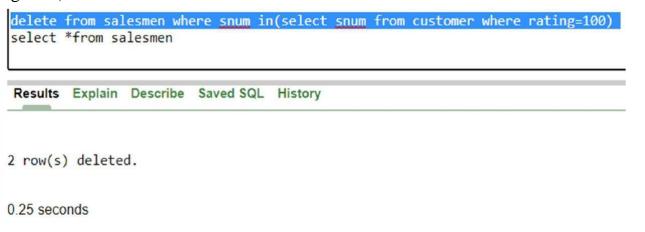
29. Create another table London_staff having same structure as salesmen table.

create table london_staff(snum,sname,city,comm) as select snum, sname, city, comm from salesmen select *from london_staff



30. Delete all salesmen who have at least one customer with a rating of 100 from salesmen table.

delete from salesmen where snum in(select snum from customer where rating=100) select *from salesmen



select * from salesmen

Results Explain Describe Saved SQL History

| SNUM | SNAME | CITY | COMM |
|-------|--------|-----------|------|
| S1001 | Piyush | London | .12 |
| S1002 | Niraj | San jose | .13 |
| S1003 | Miti | London | .11 |
| S1004 | Rajesh | Barcelona | .15 |
| S1005 | Haresh | New york | .1 |
| S1006 | Ram | Bombay | .1 |
| S1007 | Nehal | Delhi | .09 |

7 rows returned in 0.00 seconds CSV Export