**Assignment 7**

**(Subquery in SQL)**

**Table 1**: SalesPeople

**Snum is Primary key**

**Sname is Unique constraint**

**Snum Sname City Comm**

1001 Peel London 0.12

1002 Serres Sanjose 0.13

1004 Motika London 0.11

1007 Rifkin Barcelona 0.15

1003 Axelrod New York 0.10

**Table 2: Customers**

**Cnum is Primary Key**

**City has not null constraint.**

**Snum is foreign key constraint refers Snum column of SalesPeople table.**

**Cnum Cname City Snum**

2001 Hoffman London 1001

2002 Giovanni Rome 1003

2003 Liu Sanjose 1002

2004 Grass Berlin 1002

2006 Clemens London 1001

2008 Cisneros Sanjose 1007

2007 Pereira Rome 1004

**Table 3: Orders**

**Onum is Primary key**

**Cnum is foreign key refers to Cnum column of Customers table.**

**Snum is foreign key refers Snum column of SalesPeople table.**

**Onum Amt Odate Cnum Snum**

3001 18.69 3-10-1990 2008 1007

3003 767.19 3-10-1990 2001 1001

3002 1900.10 3-10-1990 2007 1004

3005 5160.45 3-10-1990 2003 1002

3006 1098.16 3-10-1990 2008 1007

3009 1713.23 4-10-1990 2002 1003

3007 75.75 4-10-1990 2004 1002

3008 4273.00 5-10-1990 2006 1001

3010 1309.95 6-10-1990 2004 1002

3011 9891.88 6-10-1990 2006 1001

1. **Create the above three tables and insert those records.**

CREATE TABLE SALESPEOPLE (SNUM NUMBER,

SNAME VARCHAR2(10),

CITY VARCHAR2(15),

COMM NUMBER,

CONSTRAINT S\_UNIQUE UNIQUE (SNAME),

CONSTRAINT S\_PK PRIMARY KEY(SNUM)

);

INSERT INTO SALESPEOPLE VALUES(1001,'Peel','London',0.12);

INSERT INTO SALESPEOPLE VALUES(1002,'Serres','Sanjose',0.13);

INSERT INTO SALESPEOPLE VALUES(1004,'Motika','London',0.11);

INSERT INTO SALESPEOPLE VALUES(1007,'Rititka','Barcelona',0.15);

INSERT INTO SALESPEOPLE VALUES(1003,'Axelrod','New York',0.10);

SELECT \* FROM SALESPEOPLE;

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CREATE TABLE CUSTOMERS (CNUM NUMBER,

CNAME VARCHAR2(10),

CITY VARCHAR2(10) NOT NULL,

SNUM NUMBER,

CONSTRAINT C\_PK PRIMARY KEY (CNUM),

CONSTRAINT C\_FK FOREIGN KEY (SNUM) REFERENCES SALESPEOPLE(SNUM)

);

INSERT INTO CUSTOMERS VALUES(2001,'Hoffaman','London',1001);

INSERT INTO CUSTOMERS VALUES(2002,'Giovanni','Rome',1003);

INSERT INTO CUSTOMERS VALUES(2003,'Liu','Sanjose',1002);

INSERT INTO CUSTOMERS VALUES(2004,'Grass','Berlin',1002);

INSERT INTO CUSTOMERS VALUES(2006,'Clemens','London',1001);

INSERT INTO CUSTOMERS VALUES(2008,'Cineros','Sanjose',1007);

INSERT INTO CUSTOMERS VALUES(2007,'Pereira','Rome',1004);

SELECT \* FROM CUSTOMERS;

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CREATE TABLE ORDERS (ONUM NUMBER,

AMT NUMBER,

ODATE DATE,

CNUM NUMBER ,

SNUM NUMBER,

CONSTRAINT O\_PK PRIMARY KEY (ONUM),

CONSTRAINT OC\_FK FOREIGN KEY (CNUM) REFERENCES CUSTOMERS(CNUM),

CONSTRAINT OS\_FK FOREIGN KEY (SNUM) REFERENCES SALESPEOPLE(SNUM)

);

INSERT INTO ORDERS VALUES (3001,18.69,'3 DECEMBER 1990',2008,1007);

INSERT INTO ORDERS VALUES (3003,767.19,'3 DECEMBER 1990',2001,1001);

INSERT INTO ORDERS VALUES (3002,1900.10,'3 DECEMBER 1990',2007,1004);

INSERT INTO ORDERS VALUES (3005,5160.45,'3 DECEMBER 1990',2003,1002);

INSERT INTO ORDERS VALUES (3006,1098.16,'3 DECEMBER 1990',2008,1007);

INSERT INTO ORDERS VALUES (3009,1713.23,'4 DECEMBER 1990',2002,1002);

INSERT INTO ORDERS VALUES (3007,75.75,'4 DECEMBER 1990',2004,1002);

INSERT INTO ORDERS VALUES (3008,4273.00,'5 DECEMBER 1990',2006,1001);

INSERT INTO ORDERS VALUES (3010,1309.95,'6 DECEMBER 1990',2004,1002);

INSERT INTO ORDERS VALUES (3011,9891.88,'6 DECEMBER 1990',2006,1001);

SELECT \* FROM ORDERS;

A table of numbers and numbers

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1. **Display all the salesperson whose all orders worth is more than Rs. 2000.**

SELECT \*

FROM SALESPEOPLE S

WHERE S.SNUM IN (

SELECT O.SNUM

FROM ORDERS O

GROUP BY SNUM

HAVING SUM(AMT)>2000

);

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1. **Display the salesperson id handling at least two customers.**

SELECT SNUM

FROM CUSTOMERS

GROUP BY SNUM

HAVING COUNT(\*)>1;

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1. **Display the salesperson names handling at least two customers.**

SELECT S.SNAME

FROM SALESPEOPLE S

WHERE SNUM IN (

SELECT C.SNUM

FROM CUSTOMERS C

GROUP BY SNUM

HAVING COUNT(\*)>1

);

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1. **Display the number of Salespeople belonging to London and Paris.**

SELECT CITY,COUNT(\*)

FROM SALESPEOPLE

GROUP BY CITY

HAVING CITY IN ('London','Paris');

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1. **Display the customer names corresponding to salesperson belonging to** **London and Paris.**

SELECT C.CNAME, C.SNUM

FROM CUSTOMERS C

WHERE C.SNUM IN (

SELECT SNUM

FROM SALESPEOPLE

WHERE CITY IN ('London','Paris')

);

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1. **Display the customer names whose order amount is worth 1200.**

SELECT C.CNAME

FROM CUSTOMERS C

WHERE C.CNUM IN (

SELECT CNUM

FROM ORDERS

GROUP BY CNUM

HAVING SUM(AMT)=1200

);

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--no customers had order values that equalled to exactly 1200

**8) Display the customer names who belong to the same city as their**

**salesperson.**

SELECT C.CNAME

FROM CUSTOMERS C

WHERE C.CITY = (

SELECT S.CITY

FROM SALESPEOPLE S

WHERE S.SNUM = C.SNUM

);

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**9) Display the salesperson names having commission more than 10 percent**

**and who handled more than two customers.**

SELECT S.SNAME

FROM SALESPEOPLE S

WHERE S.COMM>0.10

AND

S.SNUM IN (

SELECT C.SNUM

FROM CUSTOMERS C

GROUP BY C.SNUM

HAVING COUNT(\*)>2

); --THERE ARE NO SALESPEOPLE WHO HANDLE MORE THAN 2 CUSTOMERS

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**10) Display the customer’s name who orders exactly one order and his**

**salesperson name.**

SELECT C.CNAME, S.SNAME

FROM CUSTOMERS C JOIN SALESPEOPLE S

ON C.SNUM = S.SNUM

WHERE C.CNUM IN (

SELECT O.CNUM

FROM ORDERS O

GROUP BY O.CNUM

HAVING COUNT(\*)=1

);

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**11) Insert the details of a salesperson in the table who is a new joined and did not handle any customer. Write a query for the salesperson who has not handle any customer.**

INSERT INTO SALESPEOPLE VALUES(1008,'Aman','Delhi',0.3);

--inserting new joinee into table

SELECT \*

FROM SALESPEOPLE S

WHERE S.SNUM NOT IN (

SELECT DISTINCT C.SNUM

FROM CUSTOMERS C

);

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**12) Write a query that counts the number of Salespeople registering orders**

**for each day.**

SELECT COUNT(DISTINCT O.SNUM), O.ODATE

FROM ORDERS O

GROUP BY O.ODATE;

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**13) Find out the no. of Salesperson who belongs to same city and have same**

**commission percentage.**

INSERT INTO SALESPEOPLE VALUES(1009,'Raman','London',0.12);

INSERT INTO SALESPEOPLE VALUES(1010,'Manan','London',0.12);

INSERT INTO SALESPEOPLE VALUES(1011,'Ravi','London',0.11);

INSERT INTO SALESPEOPLE VALUES(1012,'Suman','New York',0.10);

SELECT COUNT(\*), S1.CITY, S1.COMM

FROM SALESPEOPLE S1

GROUP BY S1.CITY, S1.COMM;

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