

# Assignment 7

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Batch – 3ENC1



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**NOTE:-** The tables have already been made in previous assignment i.e. Assignment-6,  
But still here is the code and output for them.

## Table 1: SalesPeople

**Snum** is Primary key

**Sname** is Unique constraint

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SQL Worksheet Clear Find Actions Save Run

```
1 CREATE TABLE SalesPeople(  
2   Snum INT PRIMARY KEY,  
3   Sname VARCHAR(20) UNIQUE,  
4   City VARCHAR(20),  
5   Comm DEC(2,2)  
6 );  
7  
8 INSERT INTO SalesPeople VALUES(1001,'Peel','London',.12);  
9 INSERT INTO SalesPeople VALUES(1002,'Serres','Sanjose',.13);  
10 INSERT INTO SalesPeople VALUES(1004,'Motika','Landon',.11);  
11 INSERT INTO SalesPeople VALUES(1007,'Rifkin','Barcelona',.15);  
12 INSERT INTO SalesPeople VALUES(1003,'Axelrod','Newyork',.10);  
13  
14 SELECT *FROM SalesPeople;  
15
```

SNUM	SNAME	CITY	COMM
1001	Peel	London	.12
1002	Serres	Sanjose	.13
1004	Motika	Landon	.11
1007	Rifkin	Barcelona	.15
1003	Axelrod	Newyork	.1

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5 rows selected.

**Table 2: Customers**  
**Cnum** is Primary Key  
**City** has not null constraint.  
**Snum** is foreign key constraint refers Snum column of SalesPeople table.

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SQL Worksheet

ClearFindActionsSaveRun

```
16 CREATE TABLE Customers(  
17   Cnum INT PRIMARY KEY,  
18   Cname VARCHAR(20),  
19   City VARCHAR(25) NOT NULL,  
20   Grade INT,  
21   Snum INT,  
22   FOREIGN KEY (Snum) REFERENCES SalesPeople(Snum)  
23 );  
24  
25 INSERT INTO Customers VALUES (2001, 'Hoffman', 'London', 100, 1001);  
26 INSERT INTO Customers VALUES (2002, 'Giovanni', 'Rome', 200, 1003);  
27 INSERT INTO Customers VALUES (2003, 'Liu', 'Sanjose', 200, 1002);  
28 INSERT INTO Customers VALUES (2004, 'Grass', 'Berlin', 300, 1002);  
29 INSERT INTO Customers VALUES (2006, 'Clemens', 'London', 300, 1001);  
30 INSERT INTO Customers VALUES (2008, 'Cisneros', 'Sanjose', 100, 1007);  
31 INSERT INTO Customers VALUES (2007, 'Pereira', 'Rome', null, 1004);  
32  
33 SELECT *FROM Customers;  
34  
35
```

CNUM	CNAME	CITY	GRADE	SNUM
2001	Hoffman	London	100	1001
2002	Giovanni	Rome	200	1003
2003	Liu	Sanjose	200	1002
2004	Grass	Berlin	300	1002
2006	Clemens	London	300	1001
2008	Cisneros	Sanjose	100	1007
2007	Pereira	Rome	-	1004

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7 rows selected.

**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.

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SQL Worksheet

ClearFindActionsSaveRun

```
34 CREATE TABLE Orders(  
35   Onum INT PRIMARY KEY,  
36   Amt DEC(6,2),  
37   Odate DATE,  
38   Cnum INT,  
39   Snum INT  
40 );  
41  
42 ALTER TABLE Orders ADD FOREIGN KEY (Cnum) REFERENCES Customers(Cnum);  
43 ALTER TABLE Orders ADD FOREIGN KEY (Snum) REFERENCES SalesPeople(Snum);  
44  
45 INSERT INTO Orders VALUES (3001,18.69,to_date('03-10-1990','DD-MM-YYYY'),2008,1007);  
46 INSERT INTO Orders VALUES (3003,767.19,to_date('03-10-1990','DD-MM-YYYY'),2001,1001);  
47 INSERT INTO Orders VALUES (3002,1900.10,to_date('03-10-1990','DD-MM-YYYY'),2007,1004);  
48 INSERT INTO Orders VALUES (3005,5160.45,to_date('03-10-1990','DD-MM-YYYY'),2003,1002);  
49 INSERT INTO Orders VALUES (3006,1098.16,to_date('03-10-1990','DD-MM-YYYY'),2008,1007);  
50 INSERT INTO Orders VALUES (3009,1713.23,to_date('04-10-1990','DD-MM-YYYY'),2002,1003);  
51 INSERT INTO Orders VALUES (3007,75.75,to_date('04-10-1990','DD-MM-YYYY'),2004,1002);  
52 INSERT INTO Orders VALUES (3008,4273.80,to_date('05-10-1990','DD-MM-YYYY'),2006,1001);  
53 INSERT INTO Orders VALUES (3010,1309.95,to_date('06-10-1990','DD-MM-YYYY'),2004,1002);  
54 INSERT INTO Orders VALUES (3011,9891.88,to_date('06-10-1990','DD-MM-YYYY'),2006,1001);  
55  
56 SELECT *FROM Orders;  
57  
58
```

ONUM	AMT	ODATE	CNUM	SNUM
3001	18.69	03-OCT-90	2008	1007
3003	767.19	03-OCT-90	2001	1001
3002	1900.1	03-OCT-90	2007	1004
3005	5160.45	03-OCT-90	2003	1002
3006	1098.16	03-OCT-90	2008	1007
3009	1713.23	04-OCT-90	2002	1003
3007	75.75	04-OCT-90	2004	1002
3008	4273	05-OCT-90	2006	1001
3010	1309.95	06-OCT-90	2004	1002
3011	9891.88	06-OCT-90	2006	1001

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## JOINS:

1. Display Order number, Customer name, City and order amount of all orders whose order amount exists between 500 and 2000.

```
101 SELECT O.Onum, C.Cname, C.City, O.Amt FROM Customers C
102 INNER JOIN Orders O ON O.Cnum = C.Cnum
103 WHERE O.Amt >= 500 AND O.Amt <= 2000
104 ORDER BY O.Onum;
```

ONUM	CNAME	CITY	AMT
3002	Pereira	Rome	1900.1
3003	Hoffman	London	767.19
3006	Cisneros	Sanjose	1098.16
3009	Giovanni	Rome	1713.23
3010	Grass	Berlin	1309.95

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2. Display Customer Name, customer city, salesman name of customers whose corresponding salespersons received a commission more than 12%, from the company.

```
106 SELECT C.Cname, C.City, S.Sname FROM Customers C
107 INNER JOIN SalesPeople S ON C.Snum = S.Snum
108 WHERE S.Comm >= 0.12;
```

CNAME	CITY	SNAME
Hoffman	London	Peel
Liu	Sanjose	Serres
Grass	Berlin	Serres
Clemens	London	Peel
Cisneros	Sanjose	Rifkin

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3. Display those salespersons do not live in the same city where their customers live and received a commission from the company more than 12%. Return Customer Name, customer city, Salesman, salesman city, commission.

```
109
110 SELECT C.Cname, C.City "Customer City", S.Sname, S.city "Salesman City", S.Comm FROM Customers C
111 INNER JOIN SalesPeople S ON C.Snum = S.Snum
112 WHERE C.City != S.City AND S.Comm >= 0.12;
```

CNAME	Customer City	SNAME	Salesman City	COMM
Grass	Berlin	Serres	Sanjose	.13
Cisneros	Sanjose	Rifkin	Barcelona	.15

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2 rows selected.

## Joins as well as Subquery

4. Display the name of those salespersons whose corresponding customers attained grade greater than 100

```
114 SELECT Sname FROM SalesPeople WHERE Snum IN (SELECT Snum FROM Customers WHERE grade > 100);
115
```

SNAME
Peel
Serres
Axelrod

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3 rows selected.

5. Display all the Salesperson name and city whose all orders worth is more than Rs.2000

```
115
116 SELECT Sname, City FROM SalesPeople WHERE Snum IN (SELECT Snum FROM Orders GROUP BY Snum HAVING SUM(Amt) >= 2000);
117
```

SNAME	CITY
Peel	London
Serres	Sanjose

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2 rows selected.

6. Display name and city of all those customers who did not place any order yet.

```
117
118 SELECT Cname, City FROM Customers WHERE Cnum NOT IN (SELECT DISTINCT Cnum FROM Orders);
119
```

no data found

7. Find those salesperson name who live in any one of the city of customers.

```
119
120 SELECT Sname FROM SalesPeople WHERE City IN (SELECT DISTINCT City FROM Customers);
121
```

SNAME
Peel
Serres

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2 rows selected.

8. Find those salesperson name, customers name who belong to any one of the city of customers.

```
122 SELECT S.Sname, C.Cname FROM SalesPeople S INNER JOIN Customers C
123 ON S.City = C.City;
124
125
126
127
```

SNAME	CNAME
Peel	Hoffman
Serres	Liu
Peel	Clemens
Serres	Cisneros

[Download CSV](#)  
4 rows selected.

9. Find those salesperson name who belong to the city of their customer. Display salesperson name and Customer name.

```
122 SELECT S.Sname, C.Cname FROM SalesPeople S INNER JOIN Customers C
123 ON S.City = C.City;
124
125
126
127
```

SNAME	CNAME
Peel	Hoffman
Serres	Liu
Peel	Clemens
Serres	Cisneros

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4 rows selected.

## Co-related Subquery

10. Find those salesperson name, customer name where salesperson is assigned/not assigned to any customer

```
125  
126 SELECT S.Sname, C.Cname FROM SalesPeople S RIGHT OUTER JOIN Customers C ON S.Snum = C.Snum
```

SNAME	CNAME
Peel	Hoffman
Peel	Clemens
Serres	Liu
Serres	Grass
Motika	Pereira
Rifkin	Cisneros
Axelrod	Giovanni

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11. Find those customer name who is not assigned to any salesperson.

```
126 SELECT Cname FROM Customers C WHERE Snum IS NULL;
```

no data found

12. Find the highest order of each salesperson

```
127  
128 SELECT S.Sname, SubQuery.HighestOrder FROM SalesPeople S  
129 INNER JOIN (SELECT Snum, MAX(Amt) HighestOrder FROM Orders GROUP BY Snum) SubQuery  
130 ON S.Snum = SubQuery.Snum;  
131
```

SNAME	HIGHESTORDER
Rifkin	1098.16
Motika	1900.1
Peel	9891.88
Serres	5160.45
Axelrod	1713.23

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5 rows selected.

13. Find the names of salesperson and their highest order.

```
127
128 SELECT S.Sname, SubQuery.HighestOrder FROM SalesPeople S
129 INNER JOIN (SELECT Snum, MAX(Amt) HighestOrder FROM Orders GROUP BY Snum) SubQuery
130 ON S.Snum = SubQuery.Snum;
131
```

SNAME	HIGHESTORDER
Rifkin	1098.16
Motika	1900.1
Peel	9891.88
Serres	5160.45
Axelrod	1713.23

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5 rows selected.

14. Find those orders of salesperson which is more than his average orders.

```
132 SELECT Snum, Amt FROM Orders O WHERE Amt > (SELECT AVG(Amt) FROM Orders WHERE Snum = O.Snum) ORDER BY Snum;
```

SNUM	AMT
1001	9891.88
1002	5160.45
1007	1098.16

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3 rows selected.

15. List those salespersons who has more than two customers.

```
133
134 SELECT *FROM SalesPeople S WHERE Snum = (SELECT Snum FROM Customers WHERE Snum = S.Snum GROUP BY Snum HAVING COUNT(Snum) >= 2);
135
136
```

SNUM	SNAME	CITY	COMM
1001	Peel	London	.12
1002	Serres	Sanjose	.13

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2 rows selected.