

# Assignment 07

## Based on Sales database

1. Write a query that lists each order number followed by the name of the customer who made the order.

**Ans :** Select o.onum as Order\_number, c.cname as Customer\_name from orders o inner join customers c ON o.cnum = c.cnum;

```
D4_PratikSatpute_62758>Select o.onum as Order_number, c.cname as Customer_name
from orders o inner join customers c ON o.cnum = c.cnum;
+-----+-----+
| Order_number | Customer_name |
+-----+-----+
|          3001 | Cisneros      |
|          3003 | Hoffman      |
|          3002 | Pereira      |
|          3005 | Liu          |
|          3006 | Cisneros      |
|          3009 | Giovanni     |
|          3007 | Grass        |
|          3008 | Clemens      |
|          3010 | Grass        |
|          3011 | Clemens      |
+-----+-----+
10 rows in set (0.00 sec)
```

2. Write a query that gives the names of both the salesperson and the customer for each order along with the order number.

**Ans:** Select s.sname as Sales\_Person, c.cname as Customer from salespeople s inner join customers c ON s.snum = c.snum;

```
D4_PratikSatpute_62758>Select s.sname as Sales_Person, c.cname as Customer from
salespeople s inner join customers c ON s.snum = c.snum;
```

Sales_Person	Customer
Peel	Hoffman
Axelrod	Giovanni
Serres	Liu
Serres	Grass
Peel	Clemens
Rifkin	Cisneros
Motika	Pereira

7 rows in set (0.00 sec)

3. Write a query that produces all customers serviced by salespeople with a commission above 12%. Output the customer's name, the salesperson's name, and the salesperson's rate of commission.

**Ans:** Select c.cname as Customer\_name, s.sname as Salesperson\_name, s.comm as Rate\_of\_commission from salespeople s right outer join customers c ON c.snum = s.snum where s.comm>0.12 ;

```
D4_PratikSatpute_62758>Select c.cname as Customer_name, s.sname as Salesperson_name, s.comm
as Rate_of_commission from salespeople s right outer join customers c ON c.snum = s.snum
where s.comm>0.12 ;
```

Customer_name	Salesperson_name	Rate_of_commission
Liu	Serres	0.13
Grass	Serres	0.13
Cisneros	Rifkin	0.15

3 rows in set (0.00 sec)

4. Write a query that calculates the amount of the salesperson's commission on each order by a customer with a rating above 100.

**Ans :** Select o.onum as Order\_No, (o.amt\*s.comm) as Commission from orders o inner join salespeople s on o.snum= s.snum  
Inner join customers c on s.snum = c.snum where c.rating>100;

```
D4_PratikSatpute_62758>Select o.onum as Order_No, (o.amt*s.comm) as Commission from orders o
inner join salespeople s on o.snum= s.snum
-> Inner join customers c on s.snum = c.snum where c.rating>100;
```

Order_No	Commission
3001	2.8035
3005	670.8585
3005	670.8585
3006	164.7240
3009	171.3230
3007	9.8475
3007	9.8475
3010	40.2935
3010	40.2935

9 rows in set (0.00 sec)

5. Write a query that produces all pairs of salespeople who are living in the same city.Exclude combinations of salespeople with themselves as well as duplicate rows with the order reversed

**Ans.** Select s.sname , m.sname from salespeople s inner join salespeople m on s.city = m.city where (s.snum!=m.snum) And (s.sname > m.sname) ;

```
D4_PratikSatpute_62758>Select s.sname , m.sname from salespeople s inner join salespeople m
on s.city = m.city where (s.snum!=m.snum) And (s.sname > m.sname) ;
```

sname	sname
Peel	Motika

1 row in set (0.00 sec)

## Based on SPJ database

### 1. Display the Supplier name and the Quantity sold.

Ans:

Select s.sname As Suppliers\_name, sum(sp.qty) As Quantity\_sold from S  
s inner join SP sp on s.`s#` = sp.`s#` group by s.sname;

```
D4_PratikSatpute_62758>Select s.sname As Suppliers_name, sum(sp.qty)
As Quantity_sold from S s inner join SP sp on s.`s#` = sp.`s#` group
by s.sname;
```

Suppliers_name	Quantity_sold
Smith	900
jones	3200
Blake	700
Clark	600
Adams	3100

5 rows in set (0.00 sec)

### 2. Display the Part name and Quantity sold.

Ans:

Select p.pname as Part\_name, sum(sp.qty) As Quantity\_sold from P p  
inner join SP sp on p.`p#` = sp.`p#` group by p.pname ;

```
D4_PratikSatpute_62758>Select p.pname as Part_name, sum(sp.qty) As
Quantity_sold from P p inner join SP sp on p.`p#` = sp.`p#` group
by p.pname ;
```

Part_name	Quantity_sold
Nut	1000
Screw	4800
Cam	1100
cog	1300
Bolt	300

5 rows in set (0.00 sec)

**3. Display the Project name and Quantity sold.****Ans :**

Select j.jname as Project\_name, sum(sp.qty) As Quantity\_sold from J j  
inner join SP sp on j.`j#` = sp.`j#` group by j.jname;

```
D4_PratikSatpute_62758>Select j.jname as Project_name, sum(sp.qty) As  
Quantity_sold from J j inner join SP sp on j.`j#` = sp.`j#` group by  
j.jname;
```

Project_name	Quantity_sold
Sorter	800
Console	3300
Punchr	1200
Reader	500
Collator	1100
Terminal	400
Tape	1200

```
7 rows in set (0.00 sec)
```

#### 4. Display the Supplier name, Part name, Project name and Quantity sold.

Ans :

```
Select s.sname as Supplier_name , p.pname As Part_name , j.jname As
Project_name, sp.qty as Quantity from S s
Inner join SP sp ON s.`s#`=sp.`s#`
Inner join P p On p.`p#` = sp.`p#`
Inner join J j ON j.`j#` = sp.`j#`;
```

```
D4_PratikSatpute_62758>Select s.sname as Supplier_name , p.pname As Part_name ,
j.jname As Project_name, sp.qty as Quantity from S s
-> Inner join SP sp ON s.`s#`=sp.`s#`
-> Inner join P p On p.`p#` = sp.`p#`
-> Inner join J j ON j.`j#` = sp.`j#`;
```

Supplier_name	Part_name	Project_name	Quantity
jones	Screw	Sorter	400
Blake	Screw	Sorter	200
Smith	Nut	Sorter	200
jones	Cam	Punchr	100
Blake	Screw	Punchr	500
jones	Screw	Punchr	200
Adams	Bolt	Punchr	200
Clark	Cog	Reader	300
jones	Screw	Reader	200
Adams	Cog	Console	500
Adams	Cam	Console	400
Adams	Screw	Console	800
jones	Screw	Console	500
Adams	Screw	Console	200
Smith	Nut	Console	700
jones	Screw	Collator	600
jones	Screw	Terminal	400
Clark	Cog	Tape	300
jones	Screw	Tape	800

19 rows in set (0.00 sec)

### 5. Display the Supplier name, Supplying Parts to a Project in the same City.

**Ans:** SELECT sname AS Supplier\_name, pname AS Part\_name, jname AS Project\_name, s.city FROM s INNER JOIN p ON s.city=p.city INNER JOIN j ON p.city=j.city;

```
D4_PratikSatpute_62758>SELECT sname AS Supplier_name,pname As Part_name
, jname AS Project_name ,s.city FROM s INNER JOIN p ON s.city=p.city
INNER JOIN j ON p.city=j.city;
```

Supplier_name	Part_name	Project_name	city
jones	Cam	Sorter	Paris
Blake	Cam	Sorter	Paris
jones	Bolt	Sorter	Paris
Blake	Bolt	Sorter	Paris
Smith	cog	Collator	London
Smith	Screw	Collator	London
Smith	Nut	Collator	London
Smith	cog	Tape	London
Smith	Screw	Tape	London
Smith	Nut	Tape	London

10 rows in set (0.01 sec)

### 6. Display the Part name that is 'Red' is color, and the Quantity sold.

**Ans:**

Select p.pname , p.color, sum(sp.qty) from P p Inner join sp sp ON p.`p#`= sp.`p#` where color = 'red' group by p.pname ,p.color ;

```
D4_PratikSatpute_62758>Select p.pname , p.color, sum(sp.qty) from P p Inner j
oin sp sp ON p.`p#`= sp.`p#` where color = 'red' group by p.pname ,p.color
;
```

pname	color	sum(sp.qty)
Nut	Red	1000
Screw	Red	1300
Cog	Red	1300

3 rows in set (0.00 sec)

**7. Display all the Quantity sold by Suppliers with the Status = 20.****Ans:**

Select s.sname as Supplier , s.status, sum(sp.qty) from S s inner join SP  
 sp ON s.`s#` = sp.`s#` Where s.status = 20 group by s.sname;

```
D4_PratikSatpute_62758>Select s.sname as Supplier , s.status, sum(sp.qty)
from S s inner join SP sp ON s.`s#` = sp.`s#` Where s.status = 20 group
by s.sname;
+-----+-----+-----+
| Supplier | status | sum(sp.qty) |
+-----+-----+-----+
| Smith    |      20 |          900 |
| Clark    |      20 |          600 |
+-----+-----+-----+
2 rows in set (0.01 sec)
```

**8. Display all the Parts and Quantity with a Weight > 14.****Ans:**

Select p.pname , p.weight , sum(sp.qty) AS Quantity from P p left outer  
 join SP sp ON p.`p#`= sp.`p#` where p.weight >14 group by p.pname,  
 p.weight ;

```
D4_PratikSatpute_62758>Select p.pname , p.weight , sum(sp.qty) AS Quantity
from P p left outer join SP sp ON p.`p#`= sp.`p#` where p.weight >14 group
by p.pname, p.weight ;
+-----+-----+-----+
| pname | weight | Quantity |
+-----+-----+-----+
| Bolt  |      17 |          300 |
| Screw |      17 |         3500 |
| cog   |      19 |         1300 |
+-----+-----+-----+
3 rows in set (0.00 sec)
```



### 9. Display all the Project names and City, which has bought more than 500 Parts.

**Ans:**

Select j.jname As Project\_name, j.city As City from j j left outer join SP sp ON j.`j#` = sp.`j#` where sp.qty>500 ;

```
D4_PratikSatpute_62758>Select j.jname As Project_name, j.city As City from
j j left outer join SP sp ON j.`j#` = sp.`j#` where sp.qty>500 ;
+-----+-----+
| Project_name | City   |
+-----+-----+
| Console      | Athens |
| Collator     | London |
| Tape         | London |
| Console      | Athens |
+-----+-----+
4 rows in set (0.00 sec)
```

### 10. Display all the Part names and Quantity sold that have a Weight less than 15.

**Ans:**

Select p.pname as Part\_name, weight , sum(sp.qty) as Quantity from P p join sp sp ON p.`p#`= sp.`p#` where p.weight <15 group by p.pname, weight;

```
D4_PratikSatpute_62758>Select p.pname as Part_name, weight , sum(sp.qty
) as Quantity from P p join sp sp ON p.`p#`= sp.`p#` where p.weight <15
group by p.pname, weight;
+-----+-----+-----+
| Part_name | weight | Quantity |
+-----+-----+-----+
| Nut       | 12     | 1000     |
| Cam       | 12     | 1100     |
| Screw     | 14     | 1300     |
+-----+-----+-----+
3 rows in set (0.00 sec)
```

**11. Display all the Suppliers with the same Status as the supplier, 'CLARK'.****Ans:**

Select s.sname from s s inner join S p ON s.sname = p.sname where s.status = 20 AND s.sname <> 'clark';

```
D4_PratikSatpute_62758>Select s.sname from s s inner join S p ON s.sname
= p.sname where s.status = 20 AND s.sname <> 'clark';
+-----+
| sname |
+-----+
| Smith |
+-----+
1 row in set (0.00 sec)
```

**12. Display all the Parts which have more Weight than all the Red parts****Ans :**

SELECT p1.`p#`,p1.pname,p1.weight,p1.color FROM p JOIN p p1 ON  
p.color='red' AND p1.weight>p.weight WHERE p1.color NOT LIKE 'red' GROUP  
BY p1.pname,p1.color,p1.weight,p1.`p#`;

```
D4_PratikSatpute_62758>SELECT p1.`p#`,p1.pname,p1.weight,p1.color FROM p
JOIN p p1 ON          p.color='red' AND p1.weight>p.weight WHERE p1.color
NOT LIKE 'red' GROUP BY p1.pname,p1.color,p1.weight,p1.`p#`;
+---+-----+-----+-----+
| p# | pname | weight | color |
+---+-----+-----+-----+
| P2 | Bolt  |      17 | Green |
| P3 | Screw |      17 | Blue  |
+---+-----+-----+-----+
2 rows in set (0.00 sec)
```

**13. Display all the Projects going on in the same city as the project 'TAPE'.**

**Ans:** Select j.jname , m.city from J j inner join J m On j.jname = m.jname  
where j.city = 'London' AND j.jname != 'Tape';

```
D4_PratikSatpute_62758>Select j.jname , m.city from J j inner join J
m On j.jname = m.jname where j.city = 'London' AND j.jname != 'Tape';
```

jname	city
Collator	London

1 row in set (0.00 sec)

**14. Display all the Parts with Weight less than all the Green parts**

**Ans:**

Select m.pname , m.color, m.weight from p p left outer join p m On  
p.color='green' AND m.weight<p.weight where p.pname NOT LIKE  
m.pname ;

```
D4_PratikSatpute_62758>Select m.pname , m.color, m.weight from p p left o
uter join p m On p.color='green' AND m.weight<p.weight where p.pname NOT
LIKE m.pname ;
```

pname	color	weight
Nut	Red	12
Screw	Red	14
Cam	Blue	12

3 rows in set (0.00 sec)

**15.Display the name of the Supplier who has sold the maximum Quantity (in onesale)**

**Ans:**

Select s.sname, sp.qty from S s left outer join SP sp ON s.`s#`=sp.`s#` order by sp.qty desc Limit 1;

```
D4_PratikSatpute_62758>Select s.sname, sp.qty from S s left outer join SP
sp ON s.`s#`=sp.`s#` order by sp.qty desc Limit 2;
+-----+-----+
| sname | qty |
+-----+-----+
| Adams | 800 |
| jones | 800 |
+-----+-----+
2 rows in set (0.00 sec)
```

**16.Display the name of the Supplier who has sold the maximum overall Quantity (sumof Sales).**

**Ans:**

Select s.sname as Supplier\_name, sum(sp.qty) as Total\_Quantiy from S s left outer join SP sp ON s.`s#`=sp.`s#` group by s.sname order by sum(sp.qty) DESC Limit 1 ;

```
D4_PratikSatpute_62758>Select s.sname as Supplier_name, sum(sp.qty) as
Total_Quantiy from S s left outer join SP sp ON s.`s#`=sp.`s#` group
by s.sname order by sum(sp.qty) DESC Limit 1 ;
+-----+-----+
| Supplier_name | Total_Quantiy |
+-----+-----+
| jones          | 3200          |
+-----+-----+
1 row in set (0.00 sec)
```