

DBMS ASSIGNMENT-6

20BCS009-ANZAL HUSAIN ABIDI

CREATION OF GIVEN TABLES:

```
>mysql use 20BCS009;
```

TABLE NAME sales:

```
>mysql create table sales(OrderId int primary key,  
OrderDate date,  
OrderPrice int,  
OrderQuantity int,  
CustomerName varchar(20));
```

```
>mysql insert into sales values(1,'2005-12-22',160,2,'Smith');  
>mysql insert into sales values(2,'2005-08-10',190,2,'Johnson');  
>mysql insert into sales values(3,'2005-07-13',500,5,'Baldwin');  
>mysql insert into sales values(4,'2005-07-15',420,2,'Smith');  
>mysql insert into sales values(5,'2005-12-22',1000,4,'Wood');  
>mysql insert into sales values(6,'2005-10-02',820,4,'Smith');  
>mysql insert into sales values(7,'2005-11-03',2000,2,'Baldwin');  
>mysql insert into sales values(8,'2002-12-22',1000,4,'Wood');  
>mysql insert into sales values(9,'2004-12-29',5000,4,'Smith');
```

```
>mysql select * from sales;
```

OrderId	OrderDate	OrderPrice	OrderQuantity	CustomerName
1	2005-12-22	160	2	Smith
2	2005-08-10	190	2	Johnson
3	2005-07-13	500	5	Baldwin
4	2005-07-15	420	2	Smith
5	2005-12-22	1000	4	Wood
6	2005-10-02	820	4	Smith

7	2005-11-03	2000	2	Baldwin
8	2002-12-22	1000	4	Wood
9	2004-12-29	5000	4	Smith

TABLE NAME products:

```
>mysql create table products(Product_id varchar(20) primary key,
  OrderId int,
  Manufacture_Date varchar(20),
  Raw_Material varchar(20),
  Vender_id int);

>mysql insert into products values('AZ145',2,'2005-12-23','Steel',1);
>mysql insert into products values('CS784',4,'2005-11-
28','Plastic',2);
>mysql insert into products values('AZ147',6,'2002-08-15','Steel',3);
>mysql insert into products values('FD344',3,'2005-11-03','Milk',1);
>mysql insert into products values('GR233',3,'2005-11-
30','Pulses',2);
>mysql insert into products values('FD123',2,'2005-10-03','Milk',2);
>mysql insert into products values('CS783',1,'2004-11-
03','Plastic',2);
>mysql insert into products values('CS435',5,'2001-11-04','Steel',1);
>mysql insert into products values('GR567',6,'2005-09-
03','Pulses',2);
>mysql insert into products values('FD267',5,'2002-11-03','Bread',4);
>mysql insert into products values('FD333',9,'2001-12-12','Milk',1);

>mysql select * from products;
```

Product_id	OrderId	Manufacture_Date	Raw_Material	Vender_id
------------	---------	------------------	--------------	-----------

AZ145	2	2005-12-23	Steel	1
AZ147	6	2002-08-15	Steel	3
CS435	5	2001-11-04	Steel	1
CS783	1	2004-11-03	Plastic	2
CS784	4	2005-11-28	Plastic	2
FD123	2	2005-10-03	Milk	2
FD267	5	2002-21-03	Bread	4
FD333	9	2001-12-12	Milk	1
FD344	3	2005-11-03	Milk	1
GR233	3	2005-11-30	Pulses	2
GR567	6	2005-09-03	Pulses	2

TABLE NAME vender_info:

```
>mysql create table vender_info(Vender_id int primary key,  
Vender_name varchar(20));
```

```
>mysql insert into vender_info values(1,'Smith');  
>mysql insert into vender_info values(2,'Wills');  
>mysql insert into vender_info values(3,'Johnson');  
>mysql insert into vender_info values(4,'Roger');
```

```
>select * from vender_info:
```

Vender_id	Vender_name
1	Smith
2	Wills
3	Johnson
4	Roger

TABLE NAME venders:

```
>mysql create table venders(Raw_Material varchar(20), Venders  
varchar(20), Vender_id int);
```

```
>mysql insert into venders values('Steel','Smith',1);  
>mysql insert into venders values('Plastic','Wills',2);  
>mysql insert into venders values('Steel','Johnson',3);  
>mysql insert into venders values('Milk','Smith',1);  
>mysql insert into venders values('Pulses','Wills',2);  
>mysql insert into venders values('Bread','Roger',4);  
>mysql insert into venders values('Bread','Wills',2);  
>mysql insert into venders values('Milk','Wills',3);
```

```
>mysql select * from venders;
```

Raw_Material	Venders	Vender_id
Steel	Smith	1
Plastic	Wills	2
Steel	Johnson	3
Milk	Smith	1
Pulses	Wills	2
Bread	Roger	4
Bread	Wills	2
Milk	Wills	3

Exercise on Intermediate Queries:

a) Display product information which is ordered in the same year of its manufacturing year.

```
>mysql select p.* from products p, sales s where  
year(p.Manufacture_date) = year(s.OrderDate) and p.OrderId =  
s.OrderId;
```

Output:

Product_id	OrderId	Manufacture_Date	Raw_Material	Vender_id
------------	---------	------------------	--------------	-----------

AZ145	2	2005-12-23	Steel	1
CS784	4	2005-11-28	Plastic	2
FD123	2	2005-10-03	Milk	2
FD344	3	2005-11-03	Milk	1
GR233	3	2005-11-30	Pulses	2
GR567	6	2005-09-03	Pulses	2

b)Display product information which is ordered in the same year of its manufacturing year where the vender is ‘smith’.

```
>mysql select p.* from products p, sales s where
year(p.Manufacture_date) = year(s.OrderDate) and p.OrderId =
s.OrderId and p.Vender_id = (select Vender_id from vender_info where
Vender_name = 'Smith');
```

Output:

Product_id	OrderId	Manufacture_Date	Raw_Material	Vender_id
AZ145	2	2005-12-23	Steel	1
FD344	3	2005-11-03	Milk	1

c)Display the total number of orders placed in each year.

```
>mysql select sum(OrderQuantity) as sum, year(OrderDate) from sales
group by year(OrderDate);
```

sum	year(OrderDate)
4	2002
4	2004
21	2005

d) Display the total number of orders placed in each year by vender Wills.

```
>mysql select count(*),a.OrderDate,c.Vender_name from sales a natural
join products
b natural join vender_info c where c.Vender_name = 'Wills' group by
year(a.OrderDate);
```

Output:

count(*)	OrderDate	Vender_name
5	2005-12-22	Wills

e) Display the name of all those persons who are vendors and customers both.

```
>mysql select Vender_name from vender_info where Vender_name in
(select CustomerName from sales);
```


Output:

+-----+	
	Venders
+-----+	
	Smith
	Johnson
+-----+	

f) Display the total number of food items ordered every year.

```
>mysql select year(OrderDate),sum(OrderQuantity) from sales group by year(OrderDate);
```

Output:

+-----+-----+			
	year(OrderDate)		sum(OrderQuantity)
+-----+-----+			
	2002		4
	2004		4
	2005		21
+-----+-----+			

g) Display the total number of food items ordered every year made from bread.

```
>mysql select year(OrderDate),sum(OrderQuantity) from sales where
OrderId in (select OrderId from products where Raw_Material =
'Bread') group by year(OrderDate);
```

Output:

+-----+-----+	
year(OrderDate)	sum(OrderQuantity)
+-----+-----+	
2005	4
+-----+-----+	

h) Display list of product_id whose vendor and customer is different.

```
>mysql select a.Product_id from products a natural join vender_info b
natural join
sales c where b.Vender_name != c.CustomerName;
```

Output:

```
+-----+
| Product_id |
+-----+
| AZ145      |
| CS435      |
| FD344      |
| CS783      |
| CS784      |
| FD123      |
| GR233      |
| GR567      |
| AZ147      |
| FD267      |
+-----+
```

i) Display all those customers who are ordering products of milk by smith.

```
>mysql select c.CustomerName from products a natural join vender_info
b natural join sales c where b.Vender_name = 'Smith' and
a.Raw_Material = 'Milk';
```

Output:

```
+-----+
| CustomerName |
+-----+
| Smith        |
| Baldwin      |
+-----+
```

j) Display the total number of orders by each vender every year.

```
>mysql  select sum(c.OrderQuantity), b.Vender_name, year(c.OrderDate)
from products a natural join vender_info b natural join sales c group
by Vender_name, year(OrderDate);
```

Output:

+-----+-----+-----+			
	sum(c.OrderQuantity)	Vender_name	year(c.OrderDate)
+-----+-----+-----+			
	4	Johnson	2005
	4	Roger	2005
	4	Smith	2004
	11	Smith	2005
	15	Wills	2005
+-----+-----+-----+			

k) Display name of those vendors whose products are sold more than 2000 Rs. Every year.

```
>mysql select Vender_name,year(OrderDate),  
sum(OrderPrice*OrderQuantity) as TotalAmount from products a  
natural join vender_info b natural join sales c group by  
b.Vender_name,year(OrderDate) having  
sum(c.OrderPrice*c.OrderQuantity) > 2000;
```

Output:

+-----+-----+-----+			
Vender_name	year(OrderDate)	TotalAmount	
+-----+-----+-----+			
Johnson	2005	3280	
Roger	2005	4000	
Smith	2004	20000	
Smith	2005	6880	
Wills	2005	7320	
+-----+-----+-----+			