

Assignment-7

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Batch: 2nd year CSE

```
mysql> create table sales(  
-> orderId int,  
-> orderDate date,  
-> orderPrice int,  
-> orderQuantity int,  
-> customerName varchar(15)  
-> );
```

Query OK, 0 rows affected (6.64 sec)

```
mysql> insert into sales  
-> values (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');
```

Query OK, 9 rows affected (1.07 sec)

Records: 9 Duplicates: 0 Warnings: 0

```
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

9 rows in set (0.04 sec)

```
mysql> create table products(  
-> productId varchar(5),  
-> orderId int,  
-> ManufactureDate date,  
-> rawMaterial varchar(10),  
-> venderId int  
-> );
```

Query OK, 0 rows affected (1.86 sec)

```
mysql> insert into products  
-> values ('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,'2002-12-03','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);
```

Query OK, 11 rows affected (0.27 sec)

Records: 11 Duplicates: 0 Warnings: 0

```
mysql> select * from products;
```

```

+-----+-----+-----+-----+-----+
| productId | orderId | ManufactureDate | rawMaterial | venderId |
+-----+-----+-----+-----+-----+
| 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       | 2002-12-03      | 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        |
+-----+-----+-----+-----+-----+
11 rows in set (0.00 sec)

```

```

mysql> create table venderInfo(
-> venderId int,
-> venderName varchar(15)
-> );
Query OK, 0 rows affected (2.31 sec)

```

```

mysql> insert into venderInfo
-> values (1,'Smith'),
-> (2,'Wills'),
-> (3,'Johnson'),
-> (4,'Roger');
Query OK, 4 rows affected (0.30 sec)
Records: 4 Duplicates: 0 Warnings: 0

```

```

mysql> select * from venderInfo;

```

```

+-----+-----+
| venderId | venderName |
+-----+-----+
|          1 | Smith      |
|          2 | wills      |
|          3 | Johnson    |
|          4 | Roger      |
+-----+-----+
4 rows in set (0.09 sec)

```

```

mysql> create table venders(
-> rawMaterial varchar(10),
-> venders varchar(15),
-> venderId int
-> );
Query OK, 0 rows affected (2.27 sec)

```

```

mysql> insert into venders
-> values ('Steel','Smith',1),
-> ('Plastic','wills',2),
-> ('Steel','Johnson',3),
-> ('Milk','Smith',1),
-> ('Pulses','wills',2),
-> ('Bread','Roger',4),
-> ('Bread','wills',2),
-> ('Milk','wills',3);
Query OK, 8 rows affected (0.30 sec)
Records: 8  Duplicates: 0  warnings: 0

```

```

mysql> select * from venders;

```

```

+-----+-----+-----+
| rawMaterial | venders | vendorId |
+-----+-----+-----+
| Steel       | Smith   | 1        |
| Plastic     | wills   | 2        |
| Steel       | Johnson | 3        |
| Milk        | Smith   | 1        |
| Pulses      | wills   | 2        |
| Bread       | Roger   | 4        |
| Bread       | wills   | 2        |
| Milk        | wills   | 3        |
+-----+-----+-----+
8 rows in set (0.00 sec)

```

1. Display product information which are ordered in the same year of its manufacturing year.

Answer:

```

mysql> select products.productId,products.orderId,products.RawMaterial
-> from products
-> INNER JOIN sales ON sales.orderId=products.orderId
-> WHERE year(ManufactureDate)=year(orderDate);

```

```

+-----+-----+-----+
| productId | orderId | RawMaterial |
+-----+-----+-----+
| AZ145     | 2       | Steel       |
| CS784     | 4       | Plastic     |
| FD123     | 2       | Milk        |
| FD344     | 3       | Milk        |
| GR233     | 3       | Pulses      |
| GR567     | 6       | Pulses      |
+-----+-----+-----+
6 rows in set (0.11 sec)

```

2. Display product information which are ordered in the same year of its manufacturing year where vender is 'Smith'.

Answer:

```
mysql> select products.productId,products.orderId,products.RawMaterial
-> from products
-> INNER JOIN sales ON sales.orderId=products.orderId
-> INNER JOIN venderInfo ON venderInfo.venderId=products.venderId
-> WHERE year(ManufactureDate)=year(orderDate) AND products.venderId IN
(SELECT venderId from venderInfo
-> where venderName='Smith');
```

```
+-----+-----+-----+
| productId | orderId | RawMaterial |
+-----+-----+-----+
| AZ145     | 2       | Steel       |
| FD344     | 3       | Milk        |
+-----+-----+-----+
2 rows in set (0.13 sec)
```

3. Display total numbers of orders placed each year.

Answer:

```
mysql> select SUM(orderQuantity) AS totalOrders,year(orderDate)
-> from sales
-> GROUP BY year(orderDate);
```

```
+-----+-----+
| totalOrders | year(orderDate) |
+-----+-----+
| 21         | 2005            |
| 4          | 2002            |
| 4          | 2004            |
+-----+-----+
3 rows in set (0.02 sec)
```

4. Display total numbers of orders placed each year by vender Wills.

Answer:

```
mysql> select SUM(orderQuantity) AS totalOrders,year(orderDate)
-> from sales
```

```
-> where customerName='wills'
-> GROUP BY year(orderDate);
Empty set (0.00 sec)
```

5. Display names of those persons who are venders and customers both.

Answer:

```
mysql> select DISTINCT customerName AS Name
-> from sales
-> WHERE customerName IN (select venderName from venderInfo);
+-----+
| Name   |
+-----+
| Smith  |
| Johnson|
+-----+
2 rows in set (0.00 sec)
```

6. Display total number of food items ordered every year.

Answer:

```
mysql> select SUM(orderQuantity) AS total_food, year(orderDate) AS year
-> from sales
-> INNER JOIN products ON sales.orderId=products.orderId
-> WHERE products.productId LIKE '%FD%' OR products.productId LIKE '%GR%'
-> GROUP BY year(orderDate);
+-----+-----+
| total_food | year |
+-----+-----+
|          20 | 2005 |
|           4 | 2004 |
+-----+-----+
2 rows in set (0.06 sec)
```

7. Display total number of food items ordered every year made from bread.

Answer:


```
mysql> select SUM(orderQuantity) AS total_food,year(orderDate) AS year
-> from sales
-> INNER JOIN products ON sales.orderId=products.orderId
-> WHERE products.rawMaterial='bread'
-> GROUP BY year(orderDate);
```

```
+-----+-----+
| total_food | year |
+-----+-----+
|          4 | 2005 |
+-----+-----+
1 row in set (0.00 sec)
```

8. Display list of product_id whose vender and customer is different.

Answer:

```
mysql> select productId
-> from products
-> INNER JOIN sales ON sales.orderId=products.orderId
-> INNER JOIN venderInfo ON venderInfo.venderId=products.venderId
-> WHERE customerName NOT IN (select venderName from venderInfo);
```

```
+-----+
| productId |
+-----+
| FD344     |
| GR233     |
| CS435     |
| FD267     |
+-----+
4 rows in set (0.09 sec)
```

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

Answer:

```
mysql> select customerName
-> from sales
-> INNER JOIN products ON products.orderId=sales.orderId
```

```

-> WHERE products.rawMaterial='Milk' AND products.venderId IN (select
venderId from venderInfo
-> where venderName='Smith');
+-----+
| customerName |
+-----+
| Baldwin      |
| Smith        |
+-----+
2 rows in set (0.00 sec)

```

10. Display total number of order by each vender every year.

Answer:

```

mysql> select venderInfo.venderName,year(sales.orderDate),count(DISTINCT
products.orderId)
-> from venderInfo
-> JOIN products ON venderInfo.venderId=products.venderId
-> JOIN sales ON products.orderId=sales.orderId
-> GROUP BY venderInfo.venderName,year(sales.orderDate);
+-----+-----+-----+
| venderName | year(sales.orderDate) | count(DISTINCT products.orderId) |
+-----+-----+-----+
| Johnson    | 2005 | 1 |
| Roger      | 2005 | 1 |
| Smith      | 2004 | 1 |
| Smith      | 2005 | 3 |
| wills      | 2005 | 5 |
+-----+-----+-----+
5 rows in set (1.50 sec)

```

11. Display name of those venders whose products are sold more than 2000 Rs. every year.

Answer:

```

mysql> select venderInfo.venderName,year(sales.orderDate),SUM(sales.orderPrice)
-> from venderInfo
-> JOIN products ON venderInfo.venderId=products.venderId
-> JOIN sales ON products.orderId=sales.orderId

```

```
-> GROUP BY venderInfo.venderName,year(sales.orderDate)
```

```
-> HAVING SUM(sales.orderPrice)>2000;
```

```
+-----+-----+-----+
| venderName | year(sales.orderDate) | SUM(sales.orderPrice) |
+-----+-----+-----+
| wills      | 2005 | 2090 |
| Smith      | 2004 | 5000 |
+-----+-----+-----+
```

```
2 rows in set (0.05 sec)
```