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Assignment 6

```
mysql> CREATE DATABASE ASSIGNMENT6;
Query OK, 1 row affected (0.03 sec)

mysql> use ASSIGNMENT6;
Database changed

mysql> create table sales(
    -> OrderID int primary key,
    -> Date date,
    -> Price int,
    -> Quantity int,
    -> CustomerName varchar(10));
Query OK, 0 rows affected (0.04 sec)

mysql> insert into sales
    -> values
    -> (1, '20051222', 160, 2, 'Smith'),
    -> (2, '20050810', 190, 3, 'Johnson'),
    -> (3, '20050713', 500, 5, 'Baldwin'),
    -> (4, '20050715', 420, 2, 'Smith'),
    -> (5, '20051222', 1000, 4, 'Wood'),
    -> (6, '20051102', 820, 4, 'Smith'),
    -> (7, '20051103', 2000, 2, 'Baldwin')
    -> (8, '20051103', 1000, 4, 'Wood')
    -> (9, '20051103', 5000, 4, 'Smith');
Query OK, 9 rows affected (0.01 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 (0.00 sec)
mysql> create table products(Product_id varchar(20) primary key,
    ->  OrderId int,
    ->  Manufacture_Date varchar(20),
    ->  Raw_Material varchar(20),
    ->  Vender_id int);
Query OK, 0 rows affected (0.04 sec)

mysql>  insert into products values('AZ145',2,'2005-12-23','Steel',1);
Query OK, 1 row affected (0.02 sec)

mysql>  insert into products values('CS784',4,'2005-11-28','Plastic',2);
Query OK, 1 row affected (0.00 sec)

mysql>  insert into products values('AZ147',6,'2002-08-15','Steel',3);
Query OK, 1 row affected (0.00 sec)

mysql>  insert into products values('FD344',3,'2005-11-03','Milk',1);
Query OK, 1 row affected (0.00 sec)

mysql>  insert into products values('GR233',3,'2005-11-30','Pulses',2);
Query OK, 1 row affected (0.00 sec)
```

```
mysql>  insert into products values('FD123',2,'2005-10-03','Milk',2);
Query OK, 1 row affected (0.00 sec)

mysql>  insert into products values('CS783',1,'2004-11-03','Plastic',2);
Query OK, 1 row affected (0.00 sec)

mysql>  insert into products values('CS435',5,'2001-11-04','Steel',1);
Query OK, 1 row affected (0.00 sec)

mysql>  insert into products values('GR567',6,'2005-09-03','Pulses',2);
Query OK, 1 row affected (0.00 sec)

mysql>  insert into products values('FD267',5,'2002-21-03','Bread',4);
Query OK, 1 row affected (0.00 sec)

mysql>  insert into products values('FD333',9,'2001-12-12','Milk',1);
Query OK, 1 row affected (0.01 sec)

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 | 2002-12-03       | 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 vender_info(Vender_id int primary key, Vender_name
varchar(20));
Query OK, 0 rows affected (0.03 sec)

mysql> insert into vender_info values(1,'Smith');
Query OK, 1 row affected (0.02 sec)

mysql> insert into vender_info values(2,'Wills');
Query OK, 1 row affected (0.00 sec)

mysql> insert into vender_info values(3,'Johnson');
Query OK, 1 row affected (0.00 sec)

mysql> insert into vender_info values(4,'Roger');
Query OK, 1 row affected (0.01 sec)

mysql> select * from vender_info;
+-----------+-------------+
| Vender_id | Vender_name |
+-----------+-------------+
|         1 | Smith       |
|         2 | Wills       |
|         3 | Johnson     |
|         4 | Roger       |
+-----------+-------------+
4 rows in set (0.00 sec)

mysql> create table venders(Raw_Material varchar(20), Venders varchar(20),
Vender_id int);
Query OK, 0 rows affected (0.02 sec)

mysql> insert into venders values('Steel','Smith',1);
Query OK, 1 row affected (0.01 sec)

mysql> insert into venders values('Plastic','Wills',2);
Query OK, 1 row affected (0.00 sec)
```

```
mysql> insert into venders values('Steel','Johnson',3);
Query OK, 1 row affected (0.00 sec)

mysql> insert into venders values('Milk','Smith',1);
Query OK, 1 row affected (0.00 sec)

mysql> insert into venders values('Pulses','Wills',2);
Query OK, 1 row affected (0.00 sec)

mysql> insert into venders values('Bread','Roger',4);
Query OK, 1 row affected (0.00 sec)

mysql> insert into venders values('Bread','Wills',2);
Query OK, 1 row affected (0.00 sec)

mysql> insert into venders values('Milk','Wills',3);
Query OK, 1 row affected (0.00 sec)

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 |
+--------------+---------+-----------+
8 rows in set (0.00 sec)
```

Query 1. Display product information which are 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;
+------------+---------+------------------+--------------+-----------+
| 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 |
+------------+---------+------------------+--------------+-----------+
6 rows in set (0.00 sec)
```

Query 2. Display product information which are ordered in the same year of its manufacturing year where 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');
+------------+---------+------------------+--------------+-----------+
| Product_id | OrderId | Manufacture_Date | Raw_Material | Vender_id |
+------------+---------+------------------+--------------+-----------+
| AZ145      |       2 | 2005-12-23       | Steel        |         1 |
| FD344      |       3 | 2005-11-03       | Milk         |         1 |
+------------+---------+------------------+--------------+-----------+
2 rows in set (0.01 sec)
```

Query 3. Display total number of orders placed in each year.

```
mysql> select count(orderid),year(orderdate) from sales
    -> group by year(orderdate);
+----------------+-----------------+
| count(orderid) | year(orderdate) |
+----------------+-----------------+
|              7 |            2005 |
|              1 |            2002 |
|              1 |            2004 |
+----------------+-----------------+
3 rows in set (0.00 sec)
```

Query 4. Display 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);
```

```
+----------+------------+-------------+
| count(*) | OrderDate  | Vender_name |
+----------+------------+-------------+
|        5 | 2005-12-22 | Wills       |
+----------+------------+-------------+
1 row in set (0.00 sec)
```

Query 5. Display the name of all those persons who are venders and customers both.

```
mysql> select Vender_name as Venders from vender_info where Vender_name in (select
CustomerName from sales);
+---------+
| Venders |
+---------+
| Smith   |
| Johnson |
+---------+
2 rows in set (0.00 sec)
```

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

```
mysql>  select year(OrderDate),sum(OrderQuantity) from sales where OrderId in
(select OrderId from products where Raw_Material in ('Milk','Bread','Pulses'))
group by year(OrderDate);
+-----------------+--------------------+
| year(OrderDate) | sum(OrderQuantity) |
+-----------------+--------------------+
|            2005 |                 15 |
|            2004 |                  4 |
+-----------------+--------------------+
2 rows in set (0.00 sec)
```

Query 7. Display 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);
+-----------------+--------------------+
| year(OrderDate) | sum(OrderQuantity) |
+-----------------+--------------------+
|            2005 |                  4 |
+-----------------+--------------------+
1 row in set (0.00 sec)
```

Query 8. Display list of product_id whose vender 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;
```

```
+------------+
| Product_id |
+------------+
| AZ145      |
| AZ147      |
| CS435      |
| CS783      |
| CS784      |
| FD123      |
| FD267      |
| FD344      |
| GR233      |
| GR567      |
+------------+
10 rows in set (0.00 sec)
```

Query 9. 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';
+--------------+
| CustomerName |
+--------------+
| Smith        |
| Baldwin      |
+--------------+
2 rows in set (0.00 sec)
```

Query 10. Display 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);
+----------------------+-------------+--------------------+
| sum(c.OrderQuantity) | Vender_name | year(c.OrderDate) |
+----------------------+-------------+--------------------+
|                   11 | Smith       |               2005 |
|                    4 | Johnson     |               2005 |
|                   15 | Wills       |               2005 |
|                    4 | Roger       |               2005 |
|                    4 | Smith       |               2004 |
+----------------------+-------------+--------------------+
5 rows in set (0.00 sec)
```

Query 11. Display name of those venders 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;
+-------------+-----------------+-------------+
| Vender_name | year(OrderDate) | TotalAmount |
+-------------+-----------------+-------------+
| Smith       |            2005 |        6880 |
| Johnson     |            2005 |        3280 |
```

```
| Wills       |            2005 |         7320 |
| Roger       |            2005 |         4000 |
| Smith       |            2004 |        20000 |
+-------------+-----------------+--------------+
5 rows in set (0.01 sec)
```

Thank You