**Name: Mohd Adil**

**Roll No: 20BCS042**

**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