Assignment-7

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**Roll Number: 19BCS061**

**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 | venderId |

+-------------+---------+----------+

| 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)