# FAIZAN CHOUDHARY

# 20BCS021

# **DBMS LAB**

21st March 2022

# Creation:

```
mysql> select * from sales2;
 order_id | order_date | order_price | qty | cust
         1 | 2005-12-22 |
2 | 2005-08-10 |
3 | 2005-07-13 |
                                              2 |
                                                  Smith
                                    160
                                    190
                                              2
                                                  Johnson
                                    500
                                                  Baldwin
         4 | 2005-07-15 |
                                                  Smith
                                    420
         5 | 2005-12-22 |
                                   1000
                                                  Wood
         6
           2005-10-02
                                   820
                                                  Smith
            2005-11-03
                                   2000
                                                  Baldwin
         8 | 2002-12-22 |
                                   1000
                                                  Wood
         9 | 2004-12-29 |
                                   5000
                                              4
                                                  Smith
 rows in set (0.00 sec)
```

mysql> select \* from sales2;

```
mysql> create table products
    -> (
    -> product id
                      varchar(10),
    -> order id
                       int,
    -> mfg date
                       date,
    -> raw mtrl
                       varchar(10),
    -> vendor id
    -> );
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, '2002-03-21', '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);
```

mysql> select \* from products;

```
mysql> select * from products;
 product_id | order_id | mfg_date | raw_mtrl | vendor_id |
                  2 | 2005-12-23 | Steel
6 | 2002-08-15 | Steel
 AZ145
 AZ147
                    5 | 2001-11-04 | Steel
 CS435
                    1 | 2004-11-03 | Plastic
 CS783
                    4 | 2005-11-28 | Plastic
 CS784
 FD123
                    2 | 2005-10-03 | Milk
                    5 | 2002-03-21 | Bread
 FD267
                    9 | 2001-12-12 | Milk
 FD333
                    3 | 2005-11-03 | Milk
 FD344
 GR233
                    3 | 2005-11-30 | Pulses
                                                         2
 GR567
                    6 | 2005-09-03 | Pulses
11 rows in set (0.00 sec)
```

```
mysql> create table vendor info
    -> (
    -> vendor id
                      int,
    -> vendor name
                      varchar(10)
    -> );
mysql> insert into vendor info values
    -> (1, 'Smith'),
    -> (2, 'Wills'),
    -> (3, 'Johnson'),
    -> (4, 'Roger');
mysql> select * from vendor info;
mysql> select * from vendor_info;
 vendor_id vendor_name
         1 | Smith
         2 Wills
         3 Johnson
         4 Roger
4 rows in set (0.00 sec)
```

```
mysql> create table vendors
-> (
-> raw_mtrl varchar(10),
-> vendors varchar(10),
-> vendor_id int
-> );
```

```
    mysql> insert into vendors 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);
    mysql> select * from vendors;
```

mysql> select \* from vendors;

raw_mtrl	vendors	++   vendor_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)				

# Queries:

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

```
mysql> select product_id, products.order_id, mfg_date, raw_mtrl,
vendor_id
```

- -> from products inner join sales2 on sales2.order\_id =
  products.order id
  - -> where year(sales2.order date) = year(products.mfg date);

product_id	++   order_id	mfg_date	+   raw_mtrl	vendor_id
+   AZ145	++   2	2005-12-23	+   Steel	1
CS784	4 j	2005-11-28	Plastic	2
FD123	2	2005-10-03	Milk	2
FD344	j 3 j	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)			

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

mysql> select product\_id, products.order\_id, mfg\_date, raw\_mtrl,
products.vendor id, vendor info.vendor name

- -> from sales2 inner join (products inner join vendor\_info on products.vendor\_id = vendor\_info.vendor\_id) on sales2.order\_id = products.order id
- -> where year(sales2.order\_date) = year(products.mfg\_date) and vendor info.vendor name='Smith';

#### **OUTPUT:**

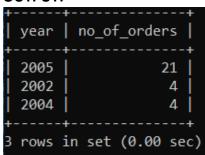
+   product_id	order_id	mfg_date	raw_mtrl	vendor_id	vendor_name
AZ145 FD344		2005-12-23 2005-11-03			Smith   Smith
2 rows in set	(0.00 sec)				+

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

mysql> select year(order date) as year, sum(qty) as no of orders

- -> from sales2
- -> group by year;

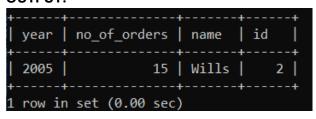
#### **OUTPUT:**



## 4. Display total number of orders placed in each year by vender Wills.

mysql> select year(order\_date) as year, sum(qty) as no\_of\_orders,
v.vendor name as name, v.vendor id as id

- -> from sales2 inner join (products inner join vendor\_info v on products.vendor\_id = v.vendor\_id) on sales2.order\_id = products.order id
  - -> where v.vendor name='Wills'
  - -> group by year;

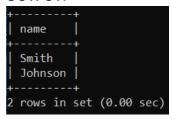


## 5. Display the name of all those persons who are venders and customers both.

```
mysql> select vendor name as name
```

- -> from vendor info
- -> where vendor name in (select cust from sales2);

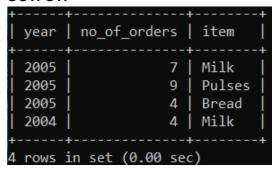
#### **OUTPUT:**



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

```
mysql> select year(order_date) as year, sum(qty) as no_of_orders,
raw_mtrl as item
    -> from sales2 s inner join products p on s.order_id =
p.order_id
    -> where raw_mtrl in ('Milk', 'Bread', 'Pulses')
    -> group by raw mtrl, year;
```

#### **OUTPUT:**



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

```
mysql> select year(order_date) as year, sum(qty) as no_of_orders,
raw_mtrl as item
    -> from sales2 s inner join products p on s.order_id =
p.order_id
    -> where raw_mtrl in ('Milk', 'Bread', 'Pulses')
    -> group by raw_mtrl, year
    -> having raw mtrl='Bread';
```

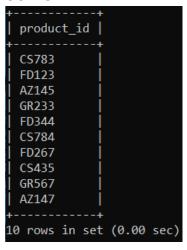
## 8. Display list of product\_id whose vender and customer is different.

```
mysql> select product id
```

-> from sales2 s inner join (products p inner join vendor\_info
v on p.vendor id = v.vendor id) on s.order id = p.order id

-> where s.cust != v.vendor name;

#### **OUTPUT:**



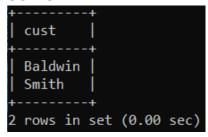
## 9. Display all those customers who are ordering products of milk by Smith.

mysql> select cust

-> from sales2 s inner join (products p inner join vendor\_info
v on p.vendor id = v.vendor id) on s.order id = p.order id

-> where raw mtrl='Milk' and vendor name='Smith';

#### **OUTPUT:**

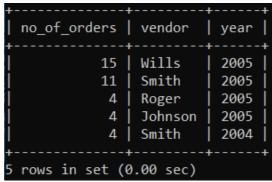


## 10. Display total number of orders by each vender every year.

mysql> select sum(qty) as no\_of\_orders, vendor\_name as vendor,
year(order\_date) as year

-> from sales2 s inner join (products p inner join vendor\_info
v on p.vendor\_id = v.vendor\_id) on s.order\_id = p.order\_id

-> group by vendor, year;



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

mysql> select vendor\_name, sum(order\_price \* qty) as tot\_price,
year(order\_date) as year

- -> from sales2 s inner join (products p inner join vendor\_info v on p.vendor\_id = v.vendor\_id) on s.order\_id = p.order\_id
  - -> group by year(order date), vendor name
  - -> having tot price > 2000;

+   vendor_name	+   tot_price	++   year
   Wills   Smith	7320 6880	2005
Roger	4000	2005
Johnson   Smith	3280 20000	2005   2004
+5 rows in set (	+ (0.00 sec)	++