FAIZAN CHOUDHARY

20BCS021

DBMS LAB

7th March 2022

Creation:

- ```
  mysql> use 20bcs021_faizan;
  ```
- ```
  mysql> create table Sales
      -> (
      -> order_id int,
      -> date     date,
      -> price    int(5),
      -> qty      int,
      -> cust     varchar(15)
      -> );
  ```
- ```
  mysql> insert into Sales values
      -> (1, '2005/12/22', 160, 2, 'Smith'),
      -> (2, '2005/08/10', 190, 3, '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');
  ```
- ```
  mysql> select * from Sales;
  ```

```
mysql> select * from Sales;
+----------+------------+-------+------+---------+
| order_id | date       | price | qty  | cust    |
+----------+------------+-------+------+---------+
|        1 | 2005-12-22 |   160 |    2 | Smith   |
|        2 | 2005-08-10 |   190 |    3 | 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 |
+----------+------------+-------+------+---------+
7 rows in set (0.00 sec)
```

Queries:

1. **Count how many orders have made a customer with CustomerName of Smith.**

```
mysql> select cust, count(*) as no_of_orders
    -> from Sales
    -> where cust = 'Smith';
```

OUTPUT:

```
+-------+--------------+
| cust  | no_of_orders |
+-------+--------------+
| Smith |            3 |
+-------+--------------+
1 row in set (0.00 sec)
```

2. **Find number of unique customers that have ordered from the store.**

```
mysql> select count(distinct cust) as no_of_cust
    -> from Sales;
```

OUTPUT:

```
+------------+
| no_of_cust |
+------------+
|          4 |
+------------+
1 row in set (0.00 sec)
```

3. **Find out total no. of items ordered by all the customers.**

```
mysql> select sum(qty) as tot_items
    -> from Sales;
```

OUTPUT:

```
+-----------+
| tot_items |
+-----------+
|        22 |
+-----------+
1 row in set (0.00 sec)
```

4. **Find out average number of items per order.**

```
mysql> select avg(qty) as avg_items
    -> from Sales;
```

OUTPUT:

```
+-----------+
| avg_items |
+-----------+
|    3.1429 |
+-----------+
1 row in set (0.00 sec)
```

5. **Find out the average Quantity for all orders with Price greater than 200.**

```
mysql> select avg(qty) as avg_items
    -> from Sales
    -> where price > 200;
```

OUTPUT:

```
+-----------+
| avg_items |
+-----------+
|    3.4000 |
+-----------+
1 row in set (0.00 sec)
```

6. **Find out what was the minimum price paid for any of the orders.**

```
mysql> select min(price) as min_price
    -> from Sales;
```

OUTPUT:

```
+-----------+
| min_price |
+-----------+
|       160 |
+-----------+
1 row in set (0.00 sec)
```

7. **Find out the highest Price from the given sales table.**

```
mysql> select max(price) as max_price
    -> from Sales;
```

OUTPUT:

```
+-----------+
| max_price |
+-----------+
|      2000 |
+-----------+
1 row in set (0.00 sec)
```

8. **List out unique customers name only from the table.**

```
mysql> select distinct cust
    -> from Sales;
```

OUTPUT:

```
+---------+
| cust    |
+---------+
| Smith   |
| Johnson |
| Baldwin |
| Wood    |
+---------+
4 rows in set (0.00 sec)
```

9. **List out name of the customers who have given order in the month of December.**

```
mysql> select cust
    -> from Sales
    -> where date like '____-12-__';
```

OUTPUT:

```
+-------+
| cust  |
+-------+
| Smith |
| Wood  |
+-------+
2 rows in set (0.00 sec)
```

10. **Find out the total amount of money spent for each of the customers.**

```
mysql> select cust, sum(price*qty) as tot_amt
    -> from Sales
    -> group by cust;
```

OUTPUT:

```
+---------+---------+
| cust    | tot_amt |
+---------+---------+
| Smith   |    4440 |
| Johnson |     570 |
| Baldwin |    6500 |
| Wood    |    4000 |
+---------+---------+
4 rows in set (0.00 sec)
```

11. **Select all unique customers who have spent more than 1200 in the store.**

```
mysql> select distinct cust, sum(price*qty) as amt
    -> from Sales
    -> group by cust
    -> having amt > 1200;
```

OUTPUT:

```
+---------+------+
| cust    | amt  |
+---------+------+
| Smith   | 4440 |
| Baldwin | 6500 |
| Wood    | 4000 |
+---------+------+
3 rows in set (0.00 sec)
```

12. Select all customers that have ordered more than 5 items in total from all their orders.

```
mysql> select cust, sum(qty) as tot_items
    -> from Sales
    -> group by cust
    -> having tot_items > 5;
```

OUTPUT:

```
+---------+-----------+
| cust    | tot_items |
+---------+-----------+
| Smith   |         8 |
| Baldwin |         7 |
+---------+-----------+
2 rows in set (0.00 sec)
```

13. Select all customers who have spent more than 1000, after 10/01/2005.

```
mysql> select cust, sum(price*qty) as amt, date
    -> from Sales
    -> group by cust
    -> having amt > 1000 and date > '2005-01-10';
```

OUTPUT:

```
+---------+------+------------+
| cust    | amt  | date       |
+---------+------+------------+
| Smith   | 4440 | 2005-12-22 |
| Baldwin | 6500 | 2005-07-13 |
| Wood    | 4000 | 2005-12-22 |
+---------+------+------------+
3 rows in set (0.00 sec)
```

14. Select orders in increasing order of order price.

```
mysql> select *
    -> from Sales
    -> order by price asc;
```

OUTPUT:

order_id	date	price	qty	cust
1	2005-12-22	160	2	Smith
2	2005-08-10	190	3	Johnson
4	2005-07-15	420	2	Smith
3	2005-07-13	500	5	Baldwin
6	2005-10-02	820	4	Smith
5	2005-12-22	1000	4	Wood
7	2005-11-03	2000	2	Baldwin

7 rows in set (0.00 sec)

15. Select orders in decreasing order of order price.

```
mysql> select *
    -> from Sales
    -> order by price desc;
```

OUTPUT:

order_id	date	price	qty	cust
7	2005-11-03	2000	2	Baldwin
5	2005-12-22	1000	4	Wood
6	2005-10-02	820	4	Smith
3	2005-07-13	500	5	Baldwin
4	2005-07-15	420	2	Smith
2	2005-08-10	190	3	Johnson
1	2005-12-22	160	2	Smith

7 rows in set (0.00 sec)