**DBMS ASSIGNMENT 3**

Enter password: \*\*\*\*\*\*\*\*\*\*

Welcome to the MySQL monitor. Commands end with ; or \g.

Your MySQL connection id is 22

Server version: 8.0.40 MySQL Community Server - GPL

Copyright (c) 2000, 2024, Oracle and/or its affiliates.

Oracle is a registered trademark of Oracle Corporation and/or its

affiliates. Other names may be trademarks of their respective

owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

**mysql> show databases;**

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

| Database |

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

| information\_schema |

| librarydb |

| management |

| mysql |

| performance\_schema |

| sakila |

| sql\_data |

| syita |

| sys |

| university |

| world |

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

11 rows in set (0.01 sec)

**mysql> create database Assignment3;**

Query OK, 1 row affected (0.03 sec)

**mysql> show databases;**

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

| Database |

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

| assignment3 |

| information\_schema |

| librarydb |

| management |

| mysql |

| performance\_schema |

| sakila |

| sql\_data |

| syita |

| sys |

| university |

| world |

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

12 rows in set (0.00 sec)

**mysql> use Assignment3;**

Database changed

**mysql> create table customer(c\_id int primary key, name varchar(40), city varchar(40), email varchar(50));**

Query OK, 0 rows affected (0.07 sec)

**mysql> desc customer;**

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

| Field | Type | Null | Key | Default | Extra |

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

| c\_id | int | NO | PRI | NULL | |

| name | varchar(40) | YES | | NULL | |

| city | varchar(40) | YES | | NULL | |

| email | varchar(50) | YES | | NULL | |

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

4 rows in set (0.01 sec)

**mysql> insert into customer values(1,'Abhishek','Kopargaon','abhi@gmail.com');**

Query OK, 1 row affected (0.02 sec)

**mysql> insert into customer values(2,'Yash','Jalna','yashgreat@gmail.com');**

Query OK, 1 row affected (0.00 sec)

**mysql> insert into customer values(3,'Om','Shirdi','president@gmail.com');**

Query OK, 1 row affected (0.01 sec)

**mysql> insert into customer values(4,'Gaurav','Padegaon','gaurav@gmail.com');**

Query OK, 1 row affected (0.01 sec)

**mysql> insert into customer values(5,'Suraj','Ahmednagar','surya@gmail.com');**

Query OK, 1 row affected (0.01 sec)

**mysql> select \* from customer;**

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

| c\_id | name | city | email |

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

| 1 | Abhishek | Kopargaon | abhi@gmail.com |

| 2 | Yash | Jalna | yashgreat@gmail.com |

| 3 | Om | Shirdi | president@gmail.com |

| 4 | Gaurav | Padegaon | gaurav@gmail.com |

| 5 | Suraj | Ahmednagar | surya@gmail.com |

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

5 rows in set (0.00 sec)

**mysql> create table orders(o\_id int, c\_id int, orderdate date, totalAmount int);**

Query OK, 0 rows affected (0.03 sec)

**mysql> desc orders;**

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

| Field | Type | Null | Key | Default | Extra |

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

| o\_id | int | YES | | NULL | |

| c\_id | int | YES | | NULL | |

| orderdate | date | YES | | NULL | |

| totalAmount | int | YES | | NULL | |

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

4 rows in set (0.00 sec)

**mysql> insert into orders values(11,1,'21-12-24',500);**

Query OK, 1 row affected (0.00 sec)

**mysql> insert into orders values(22,2,'22-10-20',500);**

Query OK, 1 row affected (0.00 sec)

**mysql> insert into orders values(33,3,'15-09-22',300);**

Query OK, 1 row affected (0.00 sec)

**mysql> insert into orders values(11,1,'16-01-25',200);**

Query OK, 1 row affected (0.01 sec)

**mysql> insert into orders values(55,5,'18-01-25',100);**

Query OK, 1 row affected (0.01 sec)

**mysql> select \* from orders;**

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

| o\_id | c\_id | orderdate | totalAmount |

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

| 11 | 1 | 2021-12-24 | 500 |

| 22 | 2 | 2022-10-20 | 500 |

| 33 | 3 | 2015-09-22 | 300 |

| 11 | 1 | 2016-01-25 | 200 |

| 55 | 5 | 2018-01-25 | 100 |

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

5 rows in set (0.00 sec)

**mysql> alter table orders add constraint fk\_customer foreign key(c\_id) references customer(c\_id);**

Query OK, 5 rows affected (0.12 sec)

Records: 5 Duplicates: 0 Warnings: 0

**mysql> desc orders;**

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

| Field | Type | Null | Key | Default | Extra |

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

| o\_id | int | YES | | NULL | |

| c\_id | int | YES | MUL | NULL | |

| orderdate | date | YES | | NULL | |

| totalAmount | int | YES | | NULL | |

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

4 rows in set (0.00 sec)

**mysql> select count(\*) as TotalOrders from orders;**

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

| TotalOrders |

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

| 5 |

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

1 row in set (0.00 sec)

**mysql> select sum(totalAmount) as SumAmount from orders;**

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

| SumAmount |

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

| 1600 |

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

1 row in set (0.00 sec)

**mysql> select avg(totalAmount) as AverageAmount from orders;**

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

| AverageAmount |

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

| 320.0000 |

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

1 row in set (0.00 sec)

**mysql> select min(totalAmount) as MinimumAmount from orders;**

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

| MinimumAmount |

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

| 100 |

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

1 row in set (0.01 sec)

**mysql> select max(totalAmount) as MaxAmount from orders;**

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

| MaxAmount |

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

| 500 |

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

1 row in set (0.00 sec)

**mysql> select o\_id, c\_id, sum(totalAmount) as sumtotal from orders group by o\_id, c\_id;**

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

| o\_id | c\_id | sumtotal |

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

| 11 | 1 | 700 |

| 22 | 2 | 500 |

| 33 | 3 | 300 |

| 55 | 5 | 100 |

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

4 rows in set (0.01 sec)

mysql> select o\_id, c\_id, count(c\_id) from orders group by o\_id, c\_id;

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

| o\_id | c\_id | count(c\_id) |

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

| 11 | 1 | 2 |

| 22 | 2 | 1 |

| 33 | 3 | 1 |

| 55 | 5 | 1 |

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

4 rows in set (0.01 sec)

mysql> select o\_id, c\_id, max(totalAmount) from orders group by o\_id, c\_id;

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

| o\_id | c\_id | max(totalAmount) |

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

| 11 | 1 | 500 |

| 22 | 2 | 500 |

| 33 | 3 | 300 |

| 55 | 5 | 100 |

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

4 rows in set (0.00 sec)

mysql> select o\_id, c\_id, avg(totalAmount) from orders group by o\_id, c\_id;

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

| o\_id | c\_id | avg(totalAmount) |

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

| 11 | 1 | 350.0000 |

| 22 | 2 | 500.0000 |

| 33 | 3 | 300.0000 |

| 55 | 5 | 100.0000 |

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

4 rows in set (0.00 sec)

mysql> select o\_id, c\_id, min(totalAmount) from orders group by o\_id, c\_id;

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

| o\_id | c\_id | min(totalAmount) |

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

| 11 | 1 | 200 |

| 22 | 2 | 500 |

| 33 | 3 | 300 |

| 55 | 5 | 100 |

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

4 rows in set (0.00 sec)

mysql> SELECT c\_id, SUM(totalAmount) AS Addition

-> FROM orders

-> GROUP BY c\_id

-> HAVING SUM(totalAmount) > 1000;

Empty set (0.00 sec)

mysql> select c\_id, sum(totalAmount) from orders group by c\_id;

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

| c\_id | sum(totalAmount) |

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

| 1 | 700 |

| 2 | 500 |

| 3 | 300 |

| 5 | 100 |

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

4 rows in set (0.00 sec)

mysql> select c\_id, sum(totalAmount) from orders group by c\_id having sum(totalAmount) > 1000;

Empty set (0.00 sec)

mysql> select c\_id, sum(totalAmount) from orders group by c\_id having sum(totalAmount) > 500;

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

| c\_id | sum(totalAmount) |

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

| 1 | 700 |

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

1 row in set (0.00 sec)

mysql> SELECT c\_id, COUNT(o\_id) AS num\_orders

-> FROM orders

-> GROUP BY c\_id;

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

| c\_id | num\_orders |

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

| 1 | 2 |

| 2 | 1 |

| 3 | 1 |

| 5 | 1 |

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

4 rows in set (0.00 sec)

mysql> SELECT c\_id, AVG(totalAmount) AS avg\_order\_amount

-> FROM orders

-> GROUP BY c\_id;

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

| c\_id | avg\_order\_amount |

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

| 1 | 350.0000 |

| 2 | 500.0000 |

| 3 | 300.0000 |

| 5 | 100.0000 |

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

4 rows in set (0.00 sec)

mysql> select c\_id from orders group by c\_id having count(distinct year(orderdate)) > 1

-> ;

+------+

| c\_id |

+------+

| 1 |

+------+

1 row in set (0.01 sec)

mysql> INSERT INTO orders (o\_id, c\_id, orderdate, totalAmount) VALUES (44, 2, '2023-03-15', 700);

Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO orders (o\_id, c\_id, orderdate, totalAmount) VALUES (66, 1, '2023-04-10', 300);

Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO orders (o\_id, c\_id, orderdate, totalAmount) VALUES (77, 4, '2022-11-05', 450);

Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO orders (o\_id, c\_id, orderdate, totalAmount) VALUES (88, 3, '2021-07-25', 600);

Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO orders (o\_id, c\_id, orderdate, totalAmount) VALUES (99, 5, '2020-09-30', 200);

Query OK, 1 row affected (0.00 sec)

mysql> select \* from orders;

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

| o\_id | c\_id | orderdate | totalAmount |

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

| 11 | 1 | 2021-12-24 | 500 |

| 22 | 2 | 2022-10-20 | 500 |

| 33 | 3 | 2015-09-22 | 300 |

| 11 | 1 | 2016-01-25 | 200 |

| 55 | 5 | 2018-01-25 | 100 |

| 44 | 2 | 2023-03-15 | 700 |

| 66 | 1 | 2023-04-10 | 300 |

| 77 | 4 | 2022-11-05 | 450 |

| 88 | 3 | 2021-07-25 | 600 |

| 99 | 5 | 2020-09-30 | 200 |

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

10 rows in set (0.00 sec)

mysql> desc orders

-> ;

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

| Field | Type | Null | Key | Default | Extra |

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

| o\_id | int | YES | | NULL | |

| c\_id | int | YES | MUL | NULL | |

| orderdate | date | YES | | NULL | |

| totalAmount | int | YES | | NULL | |

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

4 rows in set (0.01 sec)

mysql> SELECT c\_id

-> FROM orders

-> GROUP BY c\_id

-> HAVING COUNT(DISTINCT YEAR(orderdate)) > 3;

Empty set (0.00 sec)

mysql> SELECT c\_id

-> FROM orders

-> GROUP BY c\_id

-> HAVING COUNT(DISTINCT YEAR(orderdate)) > 1;

+------+

| c\_id |

+------+

| 1 |

| 2 |

| 3 |

| 5 |

+------+

4 rows in set (0.00 sec)