

SQL Task

Step 1:

Creating a database:

The CREATE DATABASE statement is used to create a new SQL database.

Syntax: CREATE DATABASE databasename;

SQL : create database shop;

```
C:\Program Files\MySQL\MySQL Server 9.1\bin>mysql -u root -p
Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 22
Server version: 9.1.0 MySQL Community Server - GPL

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owners.

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

mysql> create database shop;
Query OK, 1 row affected (0.03 sec)
```

SQL : show databases;

```
mysql> show databases;
+-----+
| Database |
+-----+
| bookshop |
| ecommerce |
| information_schema |
| mysql |
| onlineshop |
| performance_schema |
| shop |
| sys |
+-----+
3 rows in set (0.01 sec)
```

use databses sql command:

SQL : use shop;

```
mysql> use shop;
Database changed
```

Creating a table :

SQL : create table customers1;

```
ERROR 1050 (42S01): Table 'customers' already exists
mysql> create table customers1 (
  -> cust_id int(5) primary key,
  -> cust_name varchar(255),
  -> cust_email varchar(255),
  -> cust_address varchar(255)
  -> );
Query OK, 0 rows affected, 1 warning (0.06 sec)
```

SQL : create table orders;

```
mysql> create table orders (
  -> oid int(5) primary key,
  -> cust_id varchar(255),
  -> order_date varchar(255),
  -> total_amount int(20)
  -> );
Query OK, 0 rows affected, 2 warnings (0.07 sec)
```

SQL : create table products;

```
mysql> create table products (
  -> prod_id int(5) primary key,
  -> prod_name varchar(255),
  -> prod_price varchar(255),
  -> prod_description varchar(255)
  -> );
Query OK, 0 rows affected, 1 warning (0.05 sec)
```

Inserting values into customers :

```
mysql> alter table customers1;
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> desc customers1;
```

Field	Type	Null	Key	Default	Extra
cust_id	int	NO	PRI	NULL	
cust_name	varchar(255)	YES		NULL	
cust_email	varchar(255)	YES		NULL	
cust_address	varchar(255)	YES		NULL	

4 rows in set (0.00 sec)

```
mysql> insert into customers1 values(2,'emily','emily@gmail.com','622 main street');
Query OK, 1 row affected (0.01 sec)

mysql> insert into customers1 values(3,'johnson','johnson@gmail.com','263 tenth street');
Query OK, 1 row affected (0.01 sec)

mysql> insert into customers1 values(4,'ravi','ravi@gmail.com','393 main street');
Query OK, 1 row affected (0.01 sec)

mysql> insert into customers1 values(5,'watson','watson@gmail.com','1642 ninth street');
Query OK, 1 row affected (0.01 sec)

mysql> insert into customers1 values(6,'sophia','sophia@gmail.com','4612 eighth street');
Query OK, 1 row affected (0.01 sec)

mysql> insert into customers1 values(7,'brown','brown@gmail.com','1896 washington street');
Query OK, 1 row affected (0.01 sec)

mysql> insert into customers1 values(8,'nifa','nifa@gmail.com','238 jefferon street');
Query OK, 1 row affected (0.01 sec)
```

view of the customers;

```
mysql> desc customers1;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| cust_id    | int           | NO   | PRI | NULL    |       |
| cust_name  | varchar(255)  | YES  |     | NULL    |       |
| cust_email | varchar(255)  | YES  |     | NULL    |       |
| cust_address | varchar(255) | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> select * from customers1;
+-----+-----+-----+-----+
| cust_id | cust_name | cust_email      | cust_address      |
+-----+-----+-----+-----+
| 1       | raghul    | raghul@gmail.com | 626 main street   |
| 2       | emily     | emily@gmail.com  | 622 main street   |
| 3       | johnson   | johnson@gmail.com | 263 tenth street  |
| 4       | ravi      | ravi@gmail.com   | 393 main street   |
| 5       | watson    | watson@gmail.com | 1642 ninth street |
| 6       | sophia    | sophia@gmail.com | 4612 eighth street |
| 7       | brown     | brown@gmail.com  | 1896 washington street |
| 8       | nifa      | nifa@gmail.com   | 238 jefferon street |
| 9       | johnson   | johnson@gmail.com | 607 fourth street |
+-----+-----+-----+-----+
```

inserting from orders;

```
mysql> alter table orders;
Query OK, 0 rows affected (0.01 sec)

mysql> desc orders;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| oid    | int  | NO   | PRI | NULL    |       |
| cust_id | varchar(255) | YES |     | NULL    |       |
| order_date | varchar(255) | YES |     | NULL    |       |
| total_amount | int  | YES |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> insert into orders values(921,821,'23-apr-2024',4000);
Query OK, 1 row affected (0.01 sec)

mysql> insert into orders values(922,822,'15-june-2015',5000);
Query OK, 1 row affected (0.01 sec)
```

view form the orders;

```
mysql> select * from orders;
+-----+-----+-----+-----+
| oid | cust_id | order_date | total_amount |
+-----+-----+-----+-----+
| 920 | 820     | 11-jan-2023 | 6000         |
| 921 | 821     | 23-apr-2024 | 4000         |
| 922 | 822     | 15-june-2015 | 5000         |
| 923 | 823     | 30-may-1996 | 7000         |
| 924 | 824     | 10-sep-1989 | 4000         |
| 925 | 825     | 6-nov-1982  | 3000         |
| 926 | 826     | 6-11-1982   | 2000         |
| 927 | 827     | 4-may-1979  | 10000        |
| 928 | 829     | 13-jin-1994 | 12000        |
| 929 | 828     | 20-april-2022 | 15000        |
+-----+-----+-----+-----+
10 rows in set (0.00 sec)
```

inserting VALUES FROM THE PRODUCTS;

```
mysql> alter table products;
Query OK, 0 rows affected (0.01 sec)

mysql> desc products;
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| prod_id        | int           | NO   | PRI | NULL    |       |
| prod_name      | varchar(255)  | YES  |     | NULL    |       |
| prod_price     | varchar(255)  | YES  |     | NULL    |       |
| prod_description | varchar(255)  | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> insert into products values(1,'mascara',3000,'good');
Query OK, 1 row affected (0.01 sec)

mysql> insert into products values(2,'eyeshadow',2000,'good');
Query OK, 1 row affected (0.01 sec)

mysql> insert into products values(3,'power canister',4000,'good');
Query OK, 1 row affected (0.01 sec)

mysql> insert into products values(4,'laptop',15000,'great product');
Query OK, 1 row affected (0.01 sec)
```

view from the products;

```
mysql> select * from products;
+-----+-----+-----+-----+
| prod_id | prod_name      | prod_price | prod_description |
+-----+-----+-----+-----+
| 1       | mascara        | 3000       | good             |
| 2       | eyeshadow      | 2000       | good             |
| 3       | power canister | 4000       | good             |
| 4       | laptop         | 15000      | great product    |
| 5       | nail polish    | 700        | very pleased     |
| 6       | airpods        | 600        | good             |
| 7       | tooth paste    | 100        | very immersive   |
| 8       | furniture      | 4000       | average          |
| 9       | soap          | 400        | good             |
| 10      | pencil         | 50         | ;bad             |
+-----+-----+-----+-----+
0 rows in set (0.00 sec)
```

Retrieve all customers who have placed an order in the last 30 days:

```

10 rows in set (0.00 sec)

mysql> select * form orders where cust_id between 1 and 30;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that
for the right syntax to use near 'form orders where cust_id between 1 and 30'
mysql> select cust_id from orders;
+-----+
| cust_id |
+-----+
| 820     |
| 821     |
| 822     |
| 823     |
| 824     |
| 825     |
| 826     |
| 827     |
| 829     |
| 828     |
+-----+
10 rows in set (0.00 sec)

```

Get the total amount of all orders placed by each customer.

```

for the right syntax to use near 'orders' at line 1
mysql> select total_amount from orders;
+-----+
| total_amount |
+-----+
| 6000         |
| 4000         |
| 5000         |
| 7000         |
| 4000         |
| 3000         |
| 2000         |
| 10000        |
| 12000        |
| 15000        |
+-----+
10 rows in set (0.00 sec)

```

Update the price of Product C to 45.00.

```
mysql> update products set prod_name='soap' where prod_price=45.00;
Query OK, 0 rows affected (0.00 sec)
Rows matched: 0  Changed: 0  Warnings: 0
```

```
mysql> select * from products;
```

prod_id	prod_name	prod_price	prod_description
1	soap	3000	good
2	soap	2000	good
3	soap	4000	good
4	soap	15000	great product
5	soap	700	very pleased
6	soap	600	good
7	soap	100	very immensive
8	soap	4000	average
9	soap	400	good
10	soap	50	;bad

10 rows in set (0.00 sec)

Add a new column discount to the products table.

```
for the right syntax to use near ')' at line 3
mysql> alter table products add discount int(10);
Query OK, 0 rows affected, 1 warning (0.04 sec)
Records: 0  Duplicates: 0  Warnings: 1
```

```
mysql> select * from products;
```

prod_id	prod_name	prod_price	prod_description	discount
1	soap	3000	good	NULL
2	soap	2000	good	NULL
3	soap	4000	good	NULL
4	soap	15000	great product	NULL
5	soap	700	very pleased	NULL
6	soap	600	good	NULL
7	soap	100	very immensive	NULL
8	soap	4000	average	NULL
9	soap	400	good	NULL
10	soap	50	;bad	NULL

10 rows in set (0.00 sec)

Retrieve the top 3 products with the highest price.


```

for the right syntax to use near '> 900' at line 1
mysql> select * from products where prod_price between 300 and 1000;
+-----+-----+-----+-----+-----+
| prod_id | prod_name | prod_price | prod_description | discount |
+-----+-----+-----+-----+-----+
| 5 | soap | 700 | very pleased | NULL |
| 6 | soap | 600 | good | NULL |
| 9 | soap | 400 | good | NULL |
+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

```

Retrieve the orders with a total amount greater than 150.00.

```

for the right syntax to use near 'orders' at line 1
mysql> select max(total_amount) from orders;
+-----+
| max(total_amount) |
+-----+
| 15000 |
+-----+
1 row in set (0.01 sec)

```

Retrieve the average total of all orders

```

ERROR 1146 (42S02): Table 'shop.orders' doesn't exist
mysql> select avg(total_amount) from orders;
+-----+
| avg(total_amount) |
+-----+
| 6800.0000 |
+-----+
1 row in set (0.00 sec)
mysql>

```

