SQL Assignment : Product Table

Objective

This Assignment will help you practice creating a Products table, Inserting data, Updating data and performing various queries.

Instructions

1. Creating the Table: Write a SQL statement to create the Products table with the following structure:

- ProductID (integer, primary key, not null)
- ProductName (nvarchar(50), not null)
- Category (nvarchar(50), not null)
- Price (decimal(10,2), not null)
- StockQuantity (integer, not null)

2. Insert Records: Insert the following records into the Products table:

- (1, 'Laptop', 'Electronics', 1000.00, 50)
- (2, 'Headphones', 'Electronics', 150.00, 200)
- (3,'Coffee Maker','Home Appliences', 80.00, 100)
- (4,'Blender','Home Appliences', 120.00, 80)
- (5,'Office Chair','Furniture', 250.00, 30)

3. Insert One More Record: Insert the additional record:

- (6, 'Desk Lamp', 'Furniture', 250.00, 150)

4. Select All Records : Write a SQL statement to select all records from the Products table.

5. Select Specific Columns : Write a SQL statement to select the ProductName and Price columns from the Products table.

6. Where Clause : Write a SQL statement to select all products in the ‘Electronics’ category.

7. Order By : Write a SQL statement to select all products and order them by Price in ascending order.

8. Aggregade Function (COUNT) : Write a SQL statement to count the number of products in the Products table.

Solutions :

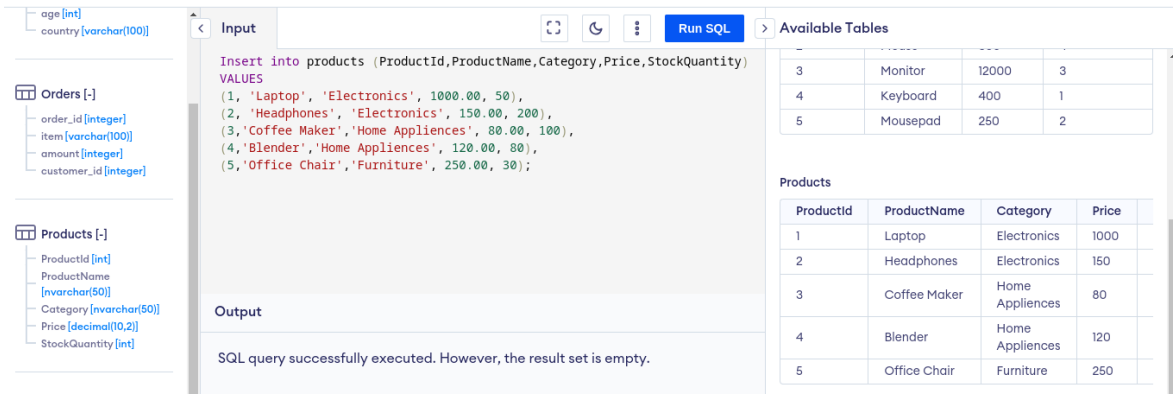
1. Creating the Table : we can use below SQL statement to create table -

```
CREATE table products (
    ProductId INT PRIMARY KEY NOT NULL,
    ProductName NVARCHAR(50) NOT NULL,
    Category NVARCHAR(50) NOT NULL,
    Price decimal(10,2) NOT NULL,
    StockQuantity INT NOT NULL );
```

2. Insert Records :

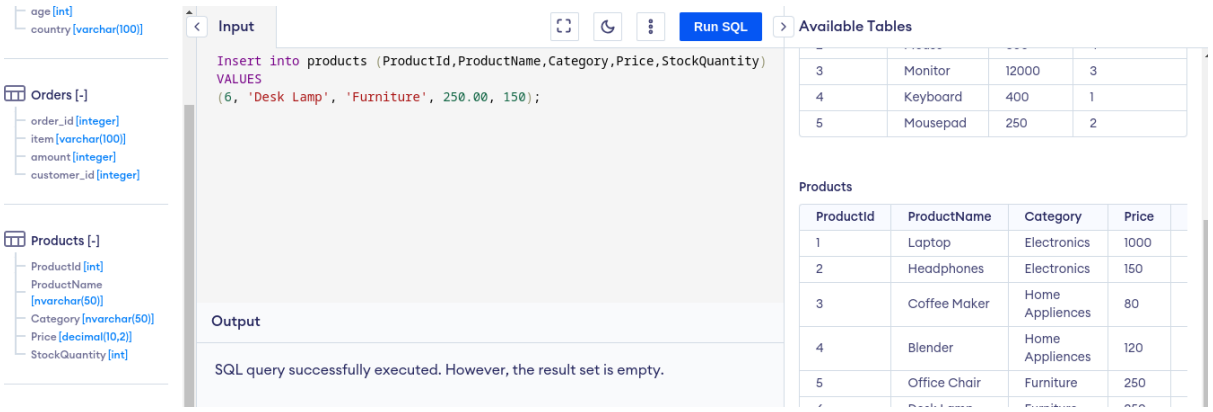
to insert data in products table we can use below SQL statement -

```
INSERT INTO products (ProductId,ProductName,Category,Price,StockQuantity)
VALUES
(1, 'Laptop', 'Electronics', 1000.00, 50),
(2, 'Headphones', 'Electronics', 150.00, 200),
(3,'Coffee Maker','Home Appliences', 80.00, 100),
(4,'Blender','Home Appliences', 120.00, 80),
(5,'Office Chair','Furniture', 250.00, 30) ;
```

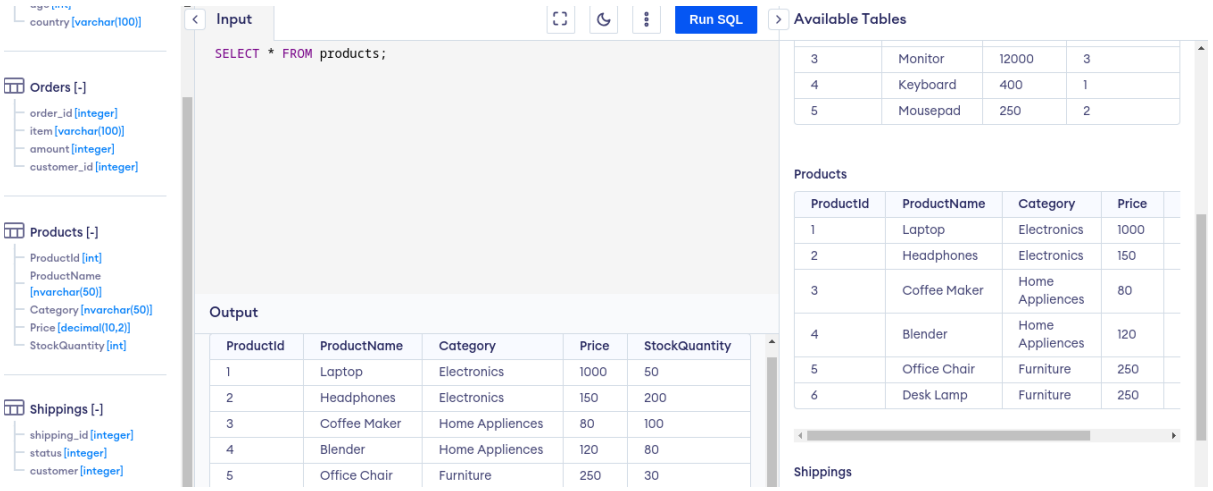


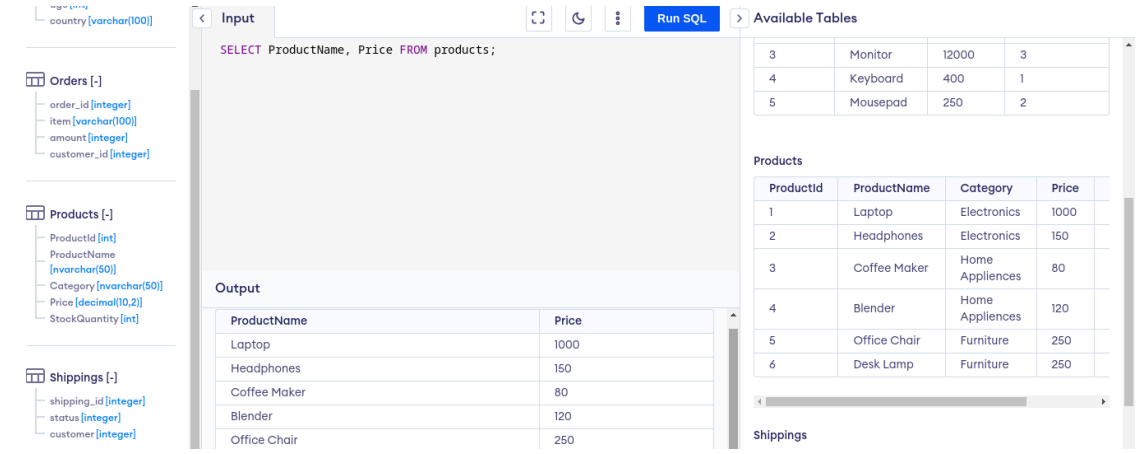
3. Insert One More Record :

INSERT INTO products (ProductId,ProductName,Category,Price,StockQuantity)
VALUES (6, 'Desk Lamp', 'Furniture', 250.00, 150);



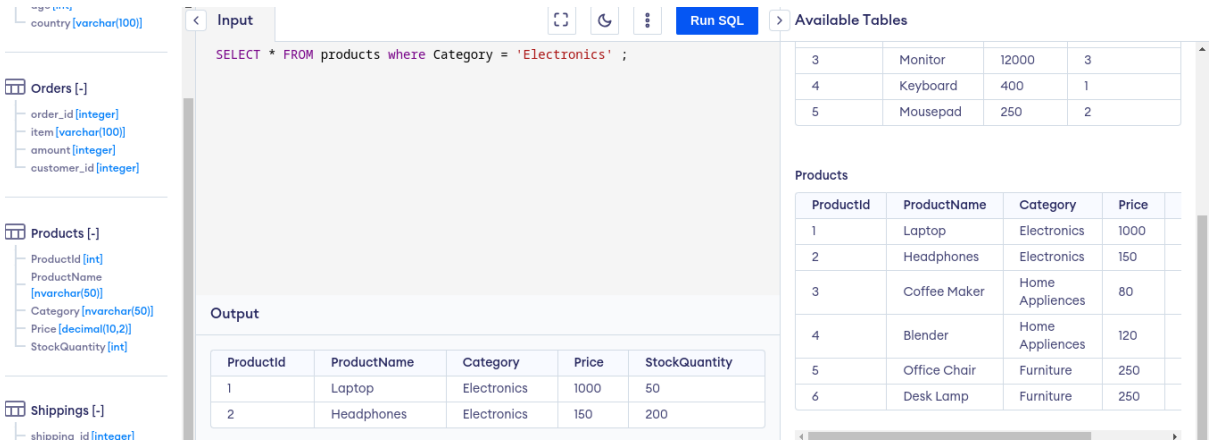
4. Select All Records : SELECT * FROM products;





5. Select Specific Columns : SELECT ProductName, Price FROM products;

6. Where Clause : SELECT * FROM products where Category = 'Electronics' ;



country [varchar(100)]

Orders [-]
order_id [integer]
item [varchar(100)]
amount [integer]
customer_id [integer]

Products [-]
ProductId [int]
ProductName [nvarchar(50)]
Category [nvarchar(50)]
Price [decimal(10,2)]
StockQuantity [int]

Shippings [-]
shipping_id [integer]

Input

Run SQL

Available Tables

```
SELECT * FROM products where Category = 'Electronics' ;
```

Output

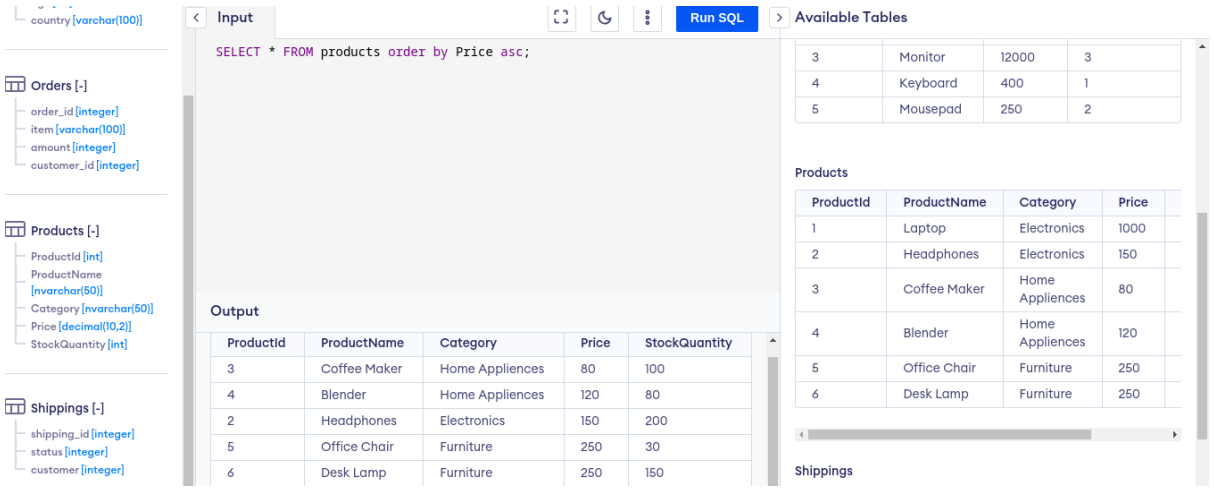
ProductId	ProductName	Category	Price	StockQuantity
1	Laptop	Electronics	1000	50
2	Headphones	Electronics	150	200

3	Monitor	12000	3
4	Keyboard	400	1
5	Mousepad	250	2

Products

ProductId	ProductName	Category	Price
1	Laptop	Electronics	1000
2	Headphones	Electronics	150
3	Coffee Maker	Home Appliences	80
4	Blender	Home Appliences	120
5	Office Chair	Furniture	250
6	Desk Lamp	Furniture	250

7. Order By : SELECT * FROM products order by Price asc;



country [varchar(100)]

Orders [-]
order_id [integer]
item [varchar(100)]
amount [integer]
customer_id [integer]

Products [-]
ProductId [int]
ProductName [nvarchar(50)]
Category [nvarchar(50)]
Price [decimal(10,2)]
StockQuantity [int]

Shippings [-]
shipping_id [integer]
status [integer]
customer [integer]

Input

Run SQL

Available Tables

```
SELECT * FROM products order by Price asc;
```

Output

ProductId	ProductName	Category	Price	StockQuantity
3	Coffee Maker	Home Appliences	80	100
4	Blender	Home Appliences	120	80
2	Headphones	Electronics	150	200
5	Office Chair	Furniture	250	30
6	Desk Lamp	Furniture	250	150

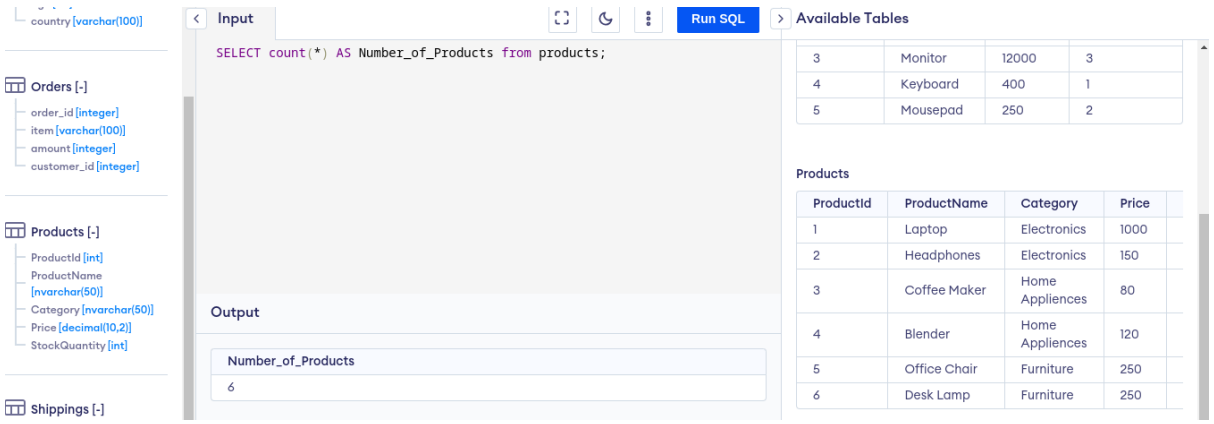
3	Monitor	12000	3
4	Keyboard	400	1
5	Mousepad	250	2

Products

ProductId	ProductName	Category	Price
1	Laptop	Electronics	1000
2	Headphones	Electronics	150
3	Coffee Maker	Home Appliences	80
4	Blender	Home Appliences	120
5	Office Chair	Furniture	250
6	Desk Lamp	Furniture	250

Shippings

8. Aggregade Function (COUNT) : SELECT count(*) AS Number_of_Products from products;



country [varchar(100)]

Orders [-]
order_id [integer]
item [varchar(100)]
amount [integer]
customer_id [integer]

Products [-]
ProductId [int]
ProductName [nvarchar(50)]
Category [nvarchar(50)]
Price [decimal(10,2)]
StockQuantity [int]

Shippings [-]

Input

Run SQL

Available Tables

```
SELECT count(*) AS Number_of_Products from products;
```

Output

Number_of_Products
6

3	Monitor	12000	3
4	Keyboard	400	1
5	Mousepad	250	2

Products

ProductId	ProductName	Category	Price
1	Laptop	Electronics	1000
2	Headphones	Electronics	150
3	Coffee Maker	Home Appliences	80
4	Blender	Home Appliences	120
5	Office Chair	Furniture	250
6	Desk Lamp	Furniture	250