

P4 IMPLEMENTATION

CLOTHING E-COMMERCE

Based on the final ERD submitted in the P3, we have developed the SQL queries to implement and create various stored procedures, triggers and views.

To sum up the details of the database created, the following table would state the components:

Check Constraints:

| Sno. | Table | Primary key | Foreign Key | Check constraint |
|-------------|------------------|--------------------------|-----------------------|---|
| 1. | category | categoryID | - | CHK_categoryID |
| 2. | creditcard | creditCardNo | customerID | - |
| 3. | customer | customerID | - | CHK_PhoneNo |
| 4. | customerAddress | customerAddressID | customerID | CHK_postalCode |
| 5. | customerFeedback | FeedbackID | customerID,orderID | CHK_experienceRating, CHK_productRating, CHK_shippingRating |
| 6. | order | orderID | customerID,shipmentID | CHK_orderID |
| 7. | orderDetailsID | orderDetailsID | orderID,productID | CHK_orderDetailsID |
| 8. | payment | paymentID | orderID,creditCardNo | CHK_paymentID |
| 9. | product | productID | categoryID | CHK_productID |
| 10. | productStock | productStockID | productID | CHK_productStock |
| 11. | shipment | shipmentID | customerAddressID | CHK_shipmentID |
| 12. | shipper | shipperID | shipmentID | CHK_shipperID |
| 13. | supplier | supplierID | - | CHK_supplierID |
| 14. | supplierAddress | supplierAddressID | supplierID | CHK_supplierAddressID |
| 15. | supplies | supplierID, productID | - | - |

Data encryption:

| Sno. | Table | Column Encrypted |
|-------------|--------------|-------------------------|
| 1. | creditcard | creditCardNo |

Non-Clustered Indexes:

| S.No | Table | Non-Clustered Indexes |
|-------------|--------------|------------------------------|
| 1. | creditcard | prim_key_creditcard |
| 2. | payment | prim_key_payment |
| 3. | productStock | prim_key_productStock |
| 4. | shipper | prim_key_shipperID |

Procedures, views, trigger created:

| S.No | Category created | Name |
|------|------------------|---|
| 1. | Procedure | GetCustomerFeedbackWith |
| 2. | Procedure | GetCustomerIDandOrderIDWithExperienceRating |
| 3. | Procedure | GetCustomerInformation |
| 4. | Procedure | GetPaymentStatusWith |
| 5. | Procedure | updateProductPrice |
| 6. | Trigger | CheckProductPriceChanges |
| 7. | View | ShowSupplierInfoAndTheirAddress |
| 8. | View | ViewProductInfoWithUnits |
| 9. | View | CustomersAndTheirCreditCards |

SQL QUERIES

CREATING A DATABASE:

SQL Query:

```
CREATE DATABASE [DMDDP4]
```

CREATING TABLES:

Table 1: category

```
/* CREATE table category */
```

```
CREATE TABLE [dbo].[category] (
```

```
    [categoryID] int NOT NULL,
```

```
    [categoryName] varchar(30) NOT NULL,
```

```
    [categoryDescription] varchar(200) NOT NULL,
```

```
    [categoryPicture] varbinary(max),
```

```
    CONSTRAINT prim_Key PRIMARY KEY CLUSTERED ([categoryID] ASC),
```

```
)
```

```
ON [PRIMARY]
```

```
/*Add a CHECK FOR Category Table */
```

```
ALTER TABLE [dbo].[category] ADD CONSTRAINT CHK_CategoryID CHECK (categoryID > 0 );
```

```
GO
```

Table 2: creditcard

```
/* CREATE table creditcard */
```

```
CREATE TABLE [dbo].[creditcard] (
```

```
    [creditCardNo] varchar(45) NOT NULL,
```

```
    [customerID] int NOT NULL,
```

```
    [SetAsPrimary] varchar(20) NOT NULL,
```

```
    [creditCardType] varchar(20),
```

```
[cardExpiry] varchar(20),  
CONSTRAINT prim_key_creditcard PRIMARY KEY NONCLUSTERED ([creditCardNo]),  
)  
ON [PRIMARY]
```

-- Add and CHECK Constraint FOREIGN KEY for CreditCard Table --

```
ALTER TABLE [dbo].[creditcard] WITH CHECK ADD CONSTRAINT  
foreign_CustomerID_CreditCard  
FOREIGN KEY ([customerID]) REFERENCES [dbo].[customer] ([customerID])
```

Table: customer

/* CREATE table customer */

```
CREATE TABLE [dbo].[customer] (  
    [customerID] int NOT NULL,  
    [customerFirstName] varchar(45) NOT NULL,  
    [customerLastName] varchar(45) NOT NULL,  
    [customerPhoneNo] varchar(45),  
    [customerEmail] varchar(45) NOT NULL  
  
    CONSTRAINT prim_Key_customer PRIMARY KEY CLUSTERED ([customerID] ASC),  
)  
ON [PRIMARY]
```

--Add a CHECK for CustomerPhoneNo in customer Table --

```
ALTER TABLE [dbo].[customer] WITH CHECK ADD CONSTRAINT CHK_PhoneNo  
CHECK (customerPhoneNo NOT LIKE '%[^0-9]%')
```

Table: customerAddress

/* CREATE table customerAddress */

```
CREATE TABLE [dbo].[customerAddress] (  
    [customerAddressID] int NOT NULL,  
    [customerID] int NOT NULL,  
    [street] varchar(20) NOT NULL,  
    [city] varchar(20) NOT NULL,  
    [PostalCode] varchar(20) NOT NULL,  
    [useAsBillingAddress] varchar(20) NOT NULL  
  
    CONSTRAINT prim_Key_customerAddress PRIMARY KEY CLUSTERED  
    ([customerAddressID] ASC),  
)  
ON [PRIMARY]
```

-- Add a CHECK CONSTRAINT FOREIGN KEYS for CustomerAddress Table --

```
ALTER TABLE [dbo].[customerAddress] WITH CHECK ADD CONSTRAINT  
foreign_customerAddress  
  
FOREIGN KEY ([customerID]) REFERENCES [dbo].[customer] ([customerID])
```

-- Add CHECK CONSTRAINT for PHONE No in CustomerFeedbackTable --

```
ALTER TABLE [dbo].[customerAddress] WITH CHECK ADD CONSTRAINT  
CHK_PostalCode_customerAddress  
  
CHECK (PostalCode NOT LIKE '%[^0-9]%')
```

Table: customerFeedback

```
/* CREATE table customerFeedback */  
  
CREATE TABLE [dbo].[customerFeedback] (  
    [FeedbackID] int NOT NULL,  
    [customerID] int NOT NULL,  
    [orderID] int NOT NULL,
```

[productRating] decimal(2,1),
[shippingRating] decimal(2,1),
[experienceRating] decimal(2,1)

CONSTRAINT prim_Key_customerFeedback PRIMARY KEY NONCLUSTERED
([FeedbackID] ASC),

)

ON [PRIMARY]

-- Add CHECK CONSTRAINT FOREIGN KEYS for CustomerFeedback Table--

ALTER TABLE [dbo].[customerFeedback] WITH CHECK ADD CONSTRAINT
foreign_key_customer_customerFeedback

FOREIGN KEY ([customerID]) REFERENCES [dbo].[customer] ([customerID])

ALTER TABLE [dbo].[customerFeedback] WITH CHECK ADD CONSTRAINT
foreign_key_order_customerFeedback

FOREIGN KEY ([orderID]) REFERENCES [dbo].[order] ([orderID])

-- Add CHECK CONSTRAINT for COLUMN VALUES in CustomerFeedbackTable --

ALTER TABLE [dbo].[customerFeedback] WITH CHECK ADD CONSTRAINT
CHK_productRating

CHECK ([productRating] > 0 AND [productRating] <= 5);

ALTER TABLE [dbo].[customerFeedback] WITH CHECK ADD CONSTRAINT
CHK_shippingRating

CHECK ([shippingRating] > 0 AND [shippingRating] <= 5);

ALTER TABLE [dbo].[customerFeedback] WITH CHECK ADD CONSTRAINT
CHK_experienceRating

CHECK ([experienceRating] > 0 AND [experienceRating] <= 5);

Table: order

/* CREATE table order */

CREATE TABLE [dbo].[order] (

[orderID] int NOT NULL,

[orderDate] date NOT NULL,

[customerID] int NOT NULL,

[orderTotal] varchar(20) NOT NULL,

[shipmentID] int NOT NULL,

[orderTime] time

CONSTRAINT prim_Key_order PRIMARY KEY CLUSTERED ([orderID] ASC),

)

ON [PRIMARY]

-- Add CHECK CONSTRAINT FOREIGN KEYS for order Table--

ALTER TABLE [dbo].[order] WITH CHECK ADD CONSTRAINT
foreign_key_customer_order

FOREIGN KEY ([customerID]) REFERENCES [dbo].[customer] ([customerID])

ALTER TABLE [dbo].[order] WITH CHECK ADD CONSTRAINT
foreign_key_shipment_order

FOREIGN KEY ([shipmentID]) REFERENCES [dbo].[shipment] ([shipmentID])

--Add a CHECK for OrderID in order Table --

ALTER TABLE [dbo].[order] WITH CHECK ADD CONSTRAINT CHK_orderID CHECK
(orderID > 0);

Table: orderDetails

```

/* CREATE table orderDetails */

CREATE TABLE [dbo].[orderDetails] (

    [orderDetailsID] int NOT NULL,

    [orderID] int NOT NULL,

    [productID] int NOT NULL,

    [orderQuantity] varchar(20),

    [fulfillmentStatus] varchar(20)

    CONSTRAINT prim_Key_orderDetails PRIMARY KEY CLUSTERED ([orderDetailsID]
ASC),

)

ON [PRIMARY]

```

-- Add CHECK CONSTRAINT FOREIGN KEYS for orderDetails Table--

```

ALTER TABLE [dbo].[orderDetails] WITH CHECK ADD CONSTRAINT
foreign_key_orderID_orderDetails

FOREIGN KEY ([orderID]) REFERENCES [dbo].[order] ([orderID])

```

```

ALTER TABLE [dbo].[orderDetails] WITH CHECK ADD CONSTRAINT
foreign_key_productID_orderDetails

FOREIGN KEY ([productID]) REFERENCES [dbo].[product] ([productID])

```

--Add a CHECK for orderDetailsID in orderDetails Table --

```

ALTER TABLE [dbo].[orderDetails] WITH CHECK ADD CONSTRAINT
CHK_orderDetailsID CHECK (orderDetailsID > 0 );

```

Table: payment

```

/* CREATE table payment */

CREATE TABLE [dbo].[payment] (

```



```
[paymentID] int NOT NULL,  
[orderID] int NOT NULL,  
[paymentMethod] varchar(30) NOT NULL,  
[paymentStatus] varchar(20),  
[paymentDate] date,  
[paymentTime] time,  
[paymentError] varchar(20),  
[creditCardNo] varchar(45) NOT NULL
```

```
CONSTRAINT prim_Key_payment PRIMARY KEY NONCLUSTERED ([paymentID] ASC),  
)  
ON [PRIMARY]
```

-- Add CHECK CONSTRAINT FOREIGN KEY for payment Table--

```
ALTER TABLE [dbo].[payment] WITH CHECK ADD CONSTRAINT  
foreign_key_orderID_payment  
FOREIGN KEY ([orderID]) REFERENCES [dbo].[order] ([orderID])
```

```
ALTER TABLE [dbo].[payment] WITH CHECK ADD CONSTRAINT  
foreign_key_creditCardNo_payment  
FOREIGN KEY (creditCardNo) REFERENCES [dbo].[creditCard] ([creditCardNo])
```

--Add a CHECK for paymentID in payment Table --

```
ALTER TABLE [dbo].[payment] WITH CHECK ADD CONSTRAINT CHK_paymentID  
CHECK (paymentID > 0)
```

Table: product

```
/* CREATE table product */
```

```
CREATE TABLE [dbo].[product] (
```

```
[productID] int NOT NULL,  
[categoryID] int NOT NULL,  
[productName] varchar(45) NOT NULL,  
[productPrice] int,  
[productColor] varchar(20),  
[productSize] varchar(20),  
[discount] varchar(20),  
[productWeight] varchar(20),  
[productPicture] varbinary(max),  
[productDescription] varchar(200)
```

```
CONSTRAINT prim_Key_product PRIMARY KEY CLUSTERED ([productID] ASC),  
)  
ON [PRIMARY]
```

-- Add CHECK CONSTRAINT FOREIGN KEY for product Table--

```
ALTER TABLE [dbo].[product] WITH CHECK ADD CONSTRAINT foreign_key_categoryID  
FOREIGN KEY ([categoryID]) REFERENCES [dbo].[category] ([categoryID])
```

--Add a CHECK for productID in product Table --

```
ALTER TABLE [dbo].[product] WITH CHECK ADD CONSTRAINT CHK_productID  
CHECK (productID > 0 );
```

Table: productStock

```
/* CREATE table productStock */  
CREATE TABLE [dbo].[productStock] (  
[productStockID] int NOT NULL,  
[productID] int NOT NULL,  
[unitsInStock] varchar(20),
```

[unitsInOrder] varchar(20)

CONSTRAINT prim_Key_productStockID PRIMARY KEY NONCLUSTERED
([productStockID]),

)

ON [PRIMARY]

-- Add CHECK CONSTRAINT FOREIGN KEY for productStock Table--

ALTER TABLE [dbo].[productStock] WITH CHECK ADD CONSTRAINT
foreign_key_productID_productStock

FOREIGN KEY ([productID]) REFERENCES [dbo].[product] ([productID])

--Add a CHECK for productStockID in productStock Table --

ALTER TABLE [dbo].[productStock] WITH CHECK ADD CONSTRAINT
CHK_productStock CHECK (productStockID > 0)

Table: Shipment

/* CREATE table shipment */

CREATE TABLE [dbo].[shipment] (

[shipmentID] int NOT NULL,

[customerAddressID] int NOT NULL,

[shippingDate] date NOT NULL,

[shippingMethod] varchar(20) NOT NULL

CONSTRAINT prim_Key_shipment PRIMARY KEY CLUSTERED ([shipmentID] ASC),

)

ON [PRIMARY]

-- Add CHECK CONSTRAINT FOREIGN KEY for shipment Table--

```
ALTER TABLE [dbo].[shipment] WITH CHECK ADD CONSTRAINT foreign_shipment
FOREIGN KEY ([customerAddressID]) REFERENCES [dbo].[customerAddress]
([customerAddressID])
```

--Add a CHECK for shipmentID in shipment Table --

```
ALTER TABLE [dbo].[shipment] WITH CHECK ADD CONSTRAINT CHK_shipmentID
CHECK (shipmentID > 0 );
```

Table: shipper

```
/* CREATE table shipper */
```

```
CREATE TABLE [dbo].[shipper] (
    [shipperID] int NOT NULL,
    [shipmentID] int NOT NULL,
    [shipperName] varchar(45),
    [shipperPhoneNo] varchar(20)
```

```
    CONSTRAINT prim_Key_shipperID PRIMARY KEY NONCLUSTERED ([shipperID]),
)
ON [PRIMARY]
```

-- Add CHECK CONSTRAINT FOREIGN KEY for shipper Table--

```
ALTER TABLE [dbo].[shipper] WITH CHECK ADD CONSTRAINT
foreign_key_shipmentID_shipper
FOREIGN KEY ([shipmentID]) REFERENCES [dbo].[shipment] ([shipmentID])
```

--Add a CHECK for shipperID in shipper Table --

```
ALTER TABLE [dbo].[shipper] WITH CHECK ADD CONSTRAINT CHK_shipperID
CHECK (shipperID > 0)
```

Table: supplier

```
/* CREATE table supplier */
```

```
CREATE TABLE [dbo].[supplier] (
```

```
    [supplierID] int NOT NULL,
```

```
    [supplierFirstName] varchar(20) NOT NULL,
```

```
    [supplierLastName] varchar(20),
```

```
    [supplierPhoneNo] varchar(20),
```

```
    [supplierEmail] varchar(45),
```

```
    [supplierURL] varchar(45),
```

```
    [supplierDescription] varchar(200),
```

```
    CONSTRAINT prim_Key_supplierID PRIMARY KEY CLUSTERED ([supplierID] ASC),
```

```
)
```

```
ON [PRIMARY]
```

```
--Add a CHECK for supplierID in supplier Table --
```

```
ALTER TABLE [dbo].[supplier] WITH CHECK ADD CONSTRAINT CHK_supplierID  
CHECK (supplierID > 0)
```

Table: supplierAddress

```
/* CREATE table supplierAddress */
```

```
CREATE TABLE [dbo].[supplierAddress] (
```

```
    [supplierAddressID] int NOT NULL,
```

```
    [supplierID] int NOT NULL,
```

```
    [street] varchar(20) NOT NULL,
```

```
    [city] varchar(20),
```

```
    [postalCode] varchar(20),
```

```
CONSTRAINT prim_Key_supplierAddressID PRIMARY KEY NONCLUSTERED
([supplierAddressID]),
)
ON [PRIMARY]
```

```
-- Add CHECK CONSTRAINT FOREIGN KEY for supplierAddress Table--
ALTER TABLE [dbo].[supplierAddress] WITH CHECK ADD CONSTRAINT
foreign_key_supplierID_supplierAddress
FOREIGN KEY ([supplierID]) REFERENCES [dbo].[supplier] ([supplierID])
```

```
--Add a CHECK for supplieraddressID in supplierAddress Table --
ALTER TABLE [dbo].[supplierAddress] WITH CHECK ADD CONSTRAINT
CHK_supplierAddressID CHECK (supplierAddressID > 0)
```

Table: supplies

```
/* CREATE table supplies */
```

```
CREATE TABLE [dbo].[supplies] (
[supplierID] int NOT NULL,
[productID] int NOT NULL
```

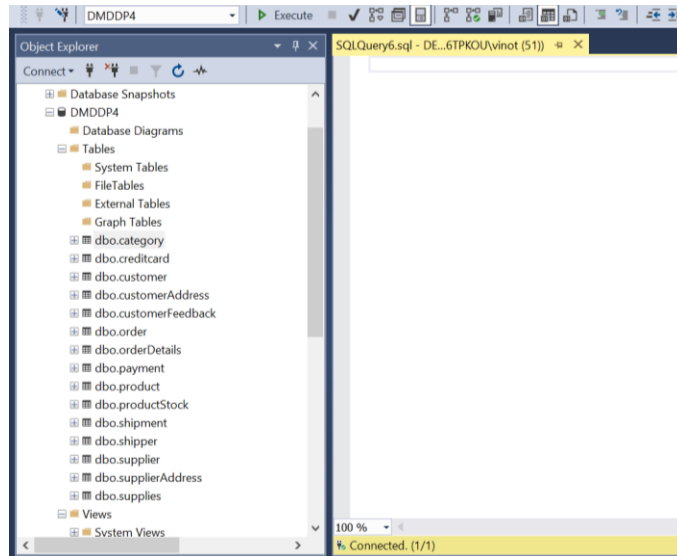
```
CONSTRAINT prim_Key_supplies PRIMARY KEY CLUSTERED
([supplierID],[productID]),
)
ON [PRIMARY]
```

```
-- Add CHECK CONSTRAINT FOREIGN KEY for supplies Table--
ALTER TABLE [dbo].[supplies] WITH CHECK ADD CONSTRAINT
foreign_key_supplierID_supplies
FOREIGN KEY ([supplierID]) REFERENCES [dbo].[supplier] ([supplierID])
```

ALTER TABLE [dbo].[supplies] WITH CHECK ADD CONSTRAINT
foreign_key_productID_supplies

FOREIGN KEY ([productID]) REFERENCES [dbo].[product] ([productID])

Result: Displaying the names of the table in the created database DMDDP4



INSERTING THE DATA INTO THE CREATED TABLES OF THE DATABASE

DMDDP4

Inserting into category table:

```
INSERT INTO category (categoryID, categoryName, categoryDescription, categoryPicture)
VALUES (1,'T-Shirts','T-Shirts great for casual wear, work, parties',
'/Users/ritz/documents/Database/Homeworks/Project/T-shirt.jpg');
```

```
INSERT INTO category (categoryID, categoryName, categoryDescription, categoryPicture)
VALUES(2,'Shirts','Shirts great for casual wear, work, parties',
'/Users/ritz/documents/Database/Homeworks/Project/Shirt.jpg');
```

```
INSERT INTO category (categoryID, categoryName, categoryDescription, categoryPicture)
VALUES(3,'Sweaters','Winter Sweaters',
'/Users/ritz/documents/Database/Homeworks/Project/Sweaters.jpg');
```

```
INSERT INTO category (categoryID, categoryName, categoryDescription, categoryPicture)
VALUES(4,'SweatShirts','Casual style Sweatshirts, Winter Sweatshirts',
'/Users/ritz/documents/Database/Homeworks/Project/SweatShirts.jpg');
```

```
INSERT INTO category (categoryID, categoryName, categoryDescription, categoryPicture)
VALUES(5,'Jackets','Jackets great for casual wear, work, parties, winter',
'/Users/ritz/documents/Database/Homeworks/Project/Jackets.jpg');
```

```
INSERT INTO category (categoryID, categoryName, categoryDescription, categoryPicture)
VALUES(6,'Casual Trousers','Casual trousers great for casual wear, work, parties',
'/Users/ritz/documents/Database/Homeworks/Project/Trousers.jpg');
```

```
INSERT INTO category (categoryID, categoryName, categoryDescription, categoryPicture)
VALUES(7,'Shorts','Shorts great for casual wear, parties',
'/Users/ritz/documents/Database/Homeworks/Project/Shorts.jpg');
```

```
INSERT INTO category (categoryID, categoryName, categoryDescription, categoryPicture)
VALUES(8,'Joggers','Joggers great for casual wear, work-out, gym',
'/Users/ritz/documents/Database/Homeworks/Project/Joggers.jpg');
```

```
INSERT INTO category (categoryID, categoryName, categoryDescription, categoryPicture)
VALUES(9,'Dresses','Dresses great for casual wear, work, parties',
'/Users/ritz/documents/Database/Homeworks/Project/Dresses.jpg');
```

```
INSERT INTO category (categoryID, categoryName, categoryDescription, categoryPicture)
```



```
VALUES(10,'Jumpsuits','Jumpsuits great for casual wear, work, parties',
'/Users/ritz/documents/Database/Homeworks/Project/Jumpsuits.jpg');
```

```
INSERT INTO category (categoryID, categoryName, categoryDescription, categoryPicture)
```

```
VALUES(11,'Skirts','Skirts great for casual wear, work, parties',
'/Users/ritz/documents/Database/Homeworks/Project/Skirts.jpg');
```

```
INSERT INTO category (categoryID, categoryName, categoryDescription, categoryPicture)
```

```
VALUES(12,'Shrugs','Shrugs great for casual wear, work, parties',
'/Users/ritz/documents/Database/Homeworks/Project/Shrugs.jpg');
```

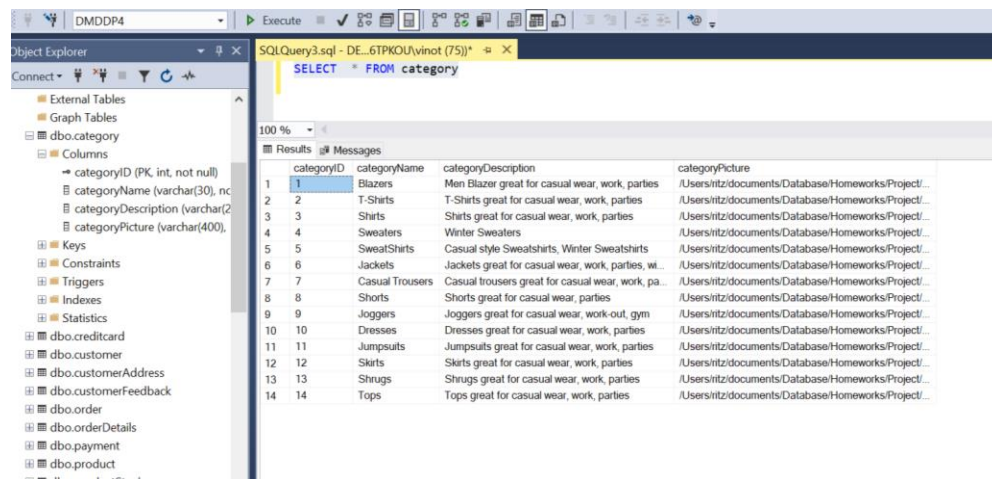
```
INSERT INTO category (categoryID, categoryName, categoryDescription, categoryPicture)
```

```
VALUES(13,'Tops','Tops great for casual wear, work, parties',
'/Users/ritz/documents/Database/Homeworks/Project/Tops.jpg');
```

```
INSERT INTO category (categoryID, categoryName, categoryDescription, categoryPicture)
```

```
VALUES(14,'Blazer','Blazers great for work, parties',
'/Users/ritz/documents/Database/Homeworks/Project/Blazer.jpg');
```

Displaying category table: The columns are also displayed in the Object Explorer where the Primary and Foreign keys are depicted.



The screenshot shows the SQL Server Enterprise Manager interface. On the left, the Object Explorer displays the 'category' table under the 'dbo' schema. The table structure is shown with columns: categoryID (PK, int, not null), categoryName (varchar(30), not null), categoryDescription (varchar(255), not null), and categoryPicture (varchar(400), not null). The 'Results' pane on the right displays the data for the 'category' table, showing 14 rows of data.

| categoryID | categoryName | categoryDescription | categoryPicture |
|------------|-----------------|---|--|
| 1 | Blazers | Men Blazer great for casual wear, work, parties | /Users/ritz/documents/Database/Homeworks/Project/... |
| 2 | T-Shirts | T-Shirts great for casual wear, work, parties | /Users/ritz/documents/Database/Homeworks/Project/... |
| 3 | Shirts | Shirts great for casual wear, work, parties | /Users/ritz/documents/Database/Homeworks/Project/... |
| 4 | Sweaters | Winter Sweaters | /Users/ritz/documents/Database/Homeworks/Project/... |
| 5 | SweatShirts | Casual style Sweatshirts, Winter Sweatshirts | /Users/ritz/documents/Database/Homeworks/Project/... |
| 6 | Jackets | Jackets great for casual wear, work, parties, wi... | /Users/ritz/documents/Database/Homeworks/Project/... |
| 7 | Casual Trousers | Casual trousers great for casual wear, work, pa... | /Users/ritz/documents/Database/Homeworks/Project/... |
| 8 | Shorts | Shorts great for casual wear, parties | /Users/ritz/documents/Database/Homeworks/Project/... |
| 9 | Joggers | Joggers great for casual wear, work-out, gym | /Users/ritz/documents/Database/Homeworks/Project/... |
| 10 | Dresses | Dresses great for casual wear, work, parties | /Users/ritz/documents/Database/Homeworks/Project/... |
| 11 | Jumpsuits | Jumpsuits great for casual wear, work, parties | /Users/ritz/documents/Database/Homeworks/Project/... |
| 12 | Skirts | Skirts great for casual wear, work, parties | /Users/ritz/documents/Database/Homeworks/Project/... |
| 13 | Shrugs | Shrugs great for casual wear, work, parties | /Users/ritz/documents/Database/Homeworks/Project/... |
| 14 | Tops | Tops great for casual wear, work, parties | /Users/ritz/documents/Database/Homeworks/Project/... |

Inserting into creditCard table:

```
INSERT INTO creditcard (creditCardNo, customerID, setAsPrimary, creditCardType,
cardExpiry)
```

```
VALUES ('123456789',1,'yes','VISA','11/21');
```

```
INSERT INTO creditcard (creditCardNo, customerID, setAsPrimary, creditCardType,
cardExpiry)
```

VALUES('2222405343248877',2,'yes','VISA','01/23');

INSERT INTO creditcard (creditCardNo, customerID, setAsPrimary, creditCardType, cardExpiry)

VALUES('2222990905257051',3,'yes','VISA','01/23');

INSERT INTO creditcard (creditCardNo, customerID, setAsPrimary, creditCardType, cardExpiry)

VALUES('2223007648726984',4,'no','MASTERCARD','03/25');

INSERT INTO creditcard (creditCardNo, customerID, setAsPrimary, creditCardType, cardExpiry)

VALUES('2223577120017656',5,'yes','APPEX','09/25');

INSERT INTO creditcard (creditCardNo, customerID, setAsPrimary, creditCardType, cardExpiry)

VALUES('378282246310005',1,'no','MASTERCARD','11/25');

INSERT INTO creditcard (creditCardNo, customerID, setAsPrimary, creditCardType, cardExpiry)

VALUES('5105105105105100',6,'yes','VISA','09/25');

INSERT INTO creditcard (creditCardNo, customerID, setAsPrimary, creditCardType, cardExpiry)

VALUES('5111010030175156',7,'no','MASTERCARD','08/23');

INSERT INTO creditcard (creditCardNo, customerID, setAsPrimary, creditCardType, cardExpiry)

VALUES('5185540810000019',8,'yes','APPEX','02/24');

INSERT INTO creditcard (creditCardNo, customerID, setAsPrimary, creditCardType, cardExpiry)

VALUES('5200828282828210',9,'no','APPEX','04/27');

INSERT INTO creditcard (creditCardNo, customerID, setAsPrimary, creditCardType, cardExpiry)

VALUES('5204230080000017',10,'no','MASTERCARD','04/27');

INSERT INTO creditcard (creditCardNo, customerID, setAsPrimary, creditCardType, cardExpiry)

VALUES('5204740009900014',11,'yes','VISA','05/25');

```
INSERT INTO creditcard (creditCardNo, customerID, setAsPrimary, creditCardType, cardExpiry)
```

```
VALUES('5420923878724339',12,'no','VISA','06/23'),
```

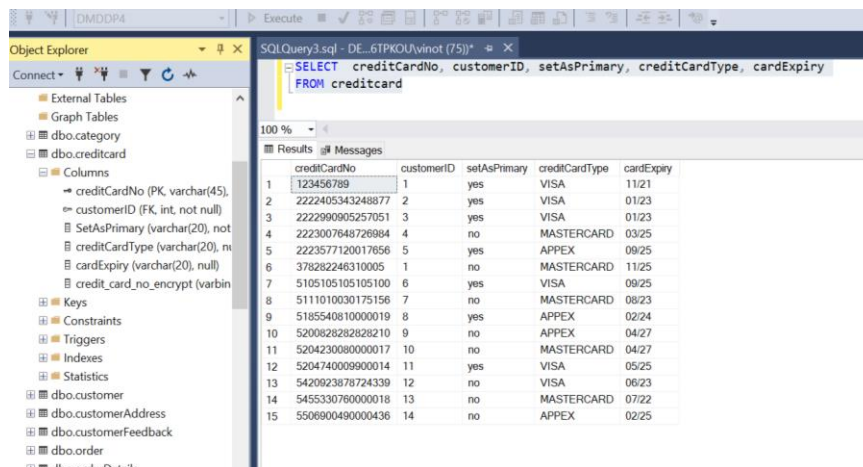
```
INSERT INTO creditcard (creditCardNo, customerID, setAsPrimary, creditCardType, cardExpiry)
```

```
VALUES('5455330760000018',13,'no','MASTERCARD','07/22');
```

```
INSERT INTO creditcard (creditCardNo, customerID, setAsPrimary, creditCardType, cardExpiry)
```

```
VALUES('5506900490000436',14,'no','APPEX','02/25');
```

Displaying creditcard table: The columns are also displayed in the Object Explorer where the Primary and Foreign keys are depicted.



Inserting into Customer table:

```
INSERT INTO Customer (customerID, customerFirstName, customerLastName, customerPhoneNo, customerEmail)
```

```
VALUES (1,'Cecelia','Chapman','8493221093','cecelia@gmail.com');
```

```
INSERT INTO customer (customerID, customerFirstName, customerLastName, customerPhoneNo, customerEmail)
```

```
VALUES (2,'Iris','Watson','3725872335','iris@gmail.com');
```

```
INSERT INTO customer (customerID, customerFirstName, customerLastName, customerPhoneNo, customerEmail)
```

```
VALUES(3,'Celeste','Slater','7867138616','celeste@gmail.com');

INSERT INTO Customer (customerID, customerFirstName, customerLastName,
customerPhoneNo, customerEmail)

VALUES(4,'Theodore','Lowe','7867138616','Theodore@gmail.com');

INSERT INTO customer (customerID, customerFirstName, customerLastName,
customerPhoneNo, customerEmail)

VALUES(5,'Kyla','Olsen','6543935734','kyla@gmail.com');

INSERT INTO customer (customerID, customerFirstName, customerLastName,
customerPhoneNo, customerEmail)

VALUES(6,'Hiroko','Potter','3142446306','hiroko@gmail.com');

INSERT INTO customer (customerID, customerFirstName, customerLastName,
customerPhoneNo, customerEmail)

VALUES(7,'Nyssa','Vazquez','9472785929','nyssa@gmail.com');

INSERT INTO customer (customerID, customerFirstName, customerLastName,
customerPhoneNo, customerEmail)

VALUES(8,'Lawrence','Moreno','6845791879','lawrence@gmail.com');

INSERT INTO customer (customerID, customerFirstName, customerLastName,
customerPhoneNo, customerEmail)

VALUES(9,'Ian','Somerhalder','3142444006','Ian@gmail.com');

INSERT INTO customer (customerID, customerFirstName, customerLastName,
customerPhoneNo, customerEmail)

VALUES(10,'Aaron','Hawkins','6606634518','aaron@gmail.com');

INSERT INTO customer (customerID, customerFirstName, customerLastName,
customerPhoneNo, customerEmail)

VALUES(11,'Hedy','Greene','6082652215','hedy@gmail.com');

INSERT INTO customer (customerID, customerFirstName, customerLastName,
customerPhoneNo, customerEmail)

VALUES(12,'Melvin','Porter','9591198364','melvin@gmail.com');

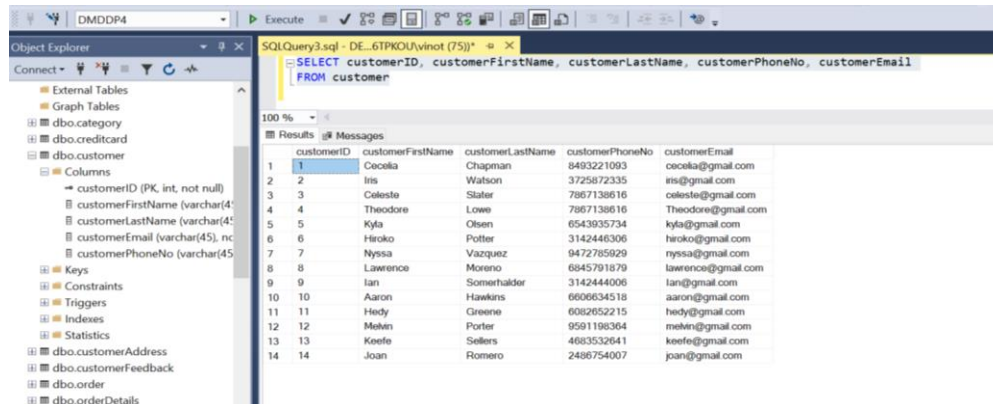
INSERT INTO customer (customerID, customerFirstName, customerLastName,
customerPhoneNo, customerEmail)

VALUES(13,'Keefe','Sellers','4683532641','keefe@gmail.com');
```

INSERT INTO customer (customerID, customerFirstName, customerLastName, customerPhoneNo, customerEmail)

VALUES(14,'Joan','Romero','2486754007','joan@gmail.com');

Displaying customer table: The columns are also displayed in the Object Explorer where the Primary and Foreign keys are depicted.



The screenshot shows the SQL Server Enterprise Manager interface. On the left, the Object Explorer displays the 'customer' table under the 'dbo' schema. The table's columns are listed: customerID (PK, int, not null), customerFirstName (varchar(45)), customerLastName (varchar(45)), customerEmail (varchar(45)), and customerPhoneNo (varchar(45)). On the right, the SQL Query window shows a SELECT statement: `SELECT customerID, customerFirstName, customerLastName, customerPhoneNo, customerEmail FROM customer`. Below the query, the results are displayed in a table with 14 rows and 5 columns.

| customerID | customerFirstName | customerLastName | customerPhoneNo | customerEmail |
|------------|-------------------|------------------|-----------------|--------------------|
| 1 | Cecelia | Chapman | 8483221093 | cecelia@gmail.com |
| 2 | Iris | Watson | 3725872335 | iris@gmail.com |
| 3 | Celeste | Staler | 7867138616 | celeste@gmail.com |
| 4 | Theodore | Lowe | 7867138616 | Theodore@gmail.com |
| 5 | Kyle | Olsen | 6543935734 | kyle@gmail.com |
| 6 | Hiroko | Potter | 3142446306 | hiroko@gmail.com |
| 7 | Nyssa | Vazquez | 9472785929 | nyssa@gmail.com |
| 8 | Lawrence | Moreno | 6845791879 | lawrence@gmail.com |
| 9 | Ian | Somerhalder | 3142444006 | ian@gmail.com |
| 10 | Aaron | Hawkins | 6606634518 | aaron@gmail.com |
| 11 | Hedy | Greene | 6082652215 | hedy@gmail.com |
| 12 | Melvin | Porter | 9591198364 | melvin@gmail.com |
| 13 | Keefe | Sellers | 4683532641 | keefe@gmail.com |
| 14 | Joan | Romero | 2486754007 | joan@gmail.com |

Inserting into customerAddress table:

INSERT INTO customerAddress (customerAddressID, customerID, street, city, postalCode, useAsBillingAddress) VALUES (1,1,'Marlboro street','Mankato','96522','yes');

INSERT INTO customerAddress (customerAddressID, customerID, street, city, postalCode, useAsBillingAddress) VALUES (2,1,'Amet street','RockyMount WA','48580','no');

INSERT INTO customerAddress (customerAddressID, customerID, street, city, postalCode, useAsBillingAddress) VALUES (3,2,'Arcu street','Tinsville','19587','yes');

INSERT INTO customerAddress (customerAddressID, customerID, street, city, postalCode, useAsBillingAddress) VALUES (4,3,'Sesame street','SantaBarbara','88017','yes');

INSERT INTO customerAddress (customerAddressID, customerID, street, city, postalCode, useAsBillingAddress) VALUES (5,4,'Maple street','Wilmington','05182','yes');

INSERT INTO customerAddress (customerAddressID, customerID, street, city, postalCode, useAsBillingAddress) VALUES (6,5,'Cedar street','Watertown','07367','no');

INSERT INTO customerAddress (customerAddressID, customerID, street, city, postalCode, useAsBillingAddress) VALUES (7,6,'Elm street','SantaBarbara','88317','yes');

INSERT INTO customerAddress (customerAddressID, customerID, street, city, postalCode, useAsBillingAddress) VALUES (8,7,'Lake street','Kingsport','56618','no');

INSERT INTO customerAddress (customerAddressID, customerID, street, city, postalCode, useAsBillingAddress) VALUES (9,8,'Pine street','SouthPort','80317','yes');

```
INSERT INTO customerAddress (customerAddressID, customerID, street, city, postalCode,
useAsBillingAddress) VALUES (10,9,'Seventh street','Dakota','79637','yes');
```

```
INSERT INTO customerAddress (customerAddressID, customerID, street, city, postalCode,
useAsBillingAddress) VALUES (11,10,'Main street','Louisiana','67973','yes');
```

```
INSERT INTO customerAddress (customerAddressID, customerID, street, city, postalCode,
useAsBillingAddress) VALUES (12,11,'OAK street','SantaBarbara','88317','yes');
```

```
INSERT INTO customerAddress (customerAddressID, customerID, street, city, postalCode,
useAsBillingAddress) VALUES (13,12,'Park street','Austin','50710','yes');
```

```
INSERT INTO customerAddress (customerAddressID, customerID, street, city, postalCode,
useAsBillingAddress) VALUES (14,13,'View street','Wyoming','88117','yes');
```

```
INSERT INTO customerAddress (customerAddressID, customerID, street, city, postalCode,
useAsBillingAddress) VALUES (15,14,'Third street','Woburn','84317','yes');
```

Displaying customerAddress table: The columns are also displayed in the Object Explorer where the Primary and Foreign keys are depicted.

| customerAddressID | customerID | street | city | postalCode | useAsBillingAddress |
|-------------------|------------|-----------------|---------------|------------|---------------------|
| 1 | 1 | Marlboro street | Manikato | 96522 | yes |
| 2 | 1 | Amet street | RockyMount WA | 48580 | no |
| 3 | 2 | Arcu street | Tinsville | 19587 | yes |
| 4 | 3 | Seasame street | SantaBarbara | 88017 | yes |
| 5 | 4 | Maple street | Wilmington | 05182 | yes |
| 6 | 5 | Cedar street | Watertown | 07367 | no |
| 7 | 6 | Elm street | SantaBarbara | 88317 | yes |
| 8 | 7 | Lake street | Kingsport | 56618 | no |
| 9 | 8 | Pine street | SouthPort | 80317 | yes |
| 10 | 9 | Seventh street | Dakota | 79637 | yes |
| 11 | 10 | Main street | Louisiana | 67973 | yes |
| 12 | 11 | OAK street | SantaBarbara | 88317 | yes |
| 13 | 12 | Park street | Austin | 50710 | yes |
| 14 | 13 | View street | Wyoming | 88117 | yes |
| 15 | 14 | Third street | Woburn | 84317 | yes |

Inserting into customerFeedback:

```
INSERT INTO customerFeedback (FeedbackID, orderID, customerID, productRating,
shippingRating, experienceRating) VALUES (1,1,1,3.5,4.5,4.0);
```

```
INSERT INTO customerFeedback (FeedbackID, orderID, customerID, productRating,
shippingRating, experienceRating) VALUES (2,2,1,4.5,4.5,4.5);
```

```
INSERT INTO customerFeedback (FeedbackID, orderID, customerID, productRating,
shippingRating, experienceRating) VALUES (3,3,2,2.8,3.5,3.0);
```

```
INSERT INTO customerFeedback (FeedbackID, orderID, customerID, productRating,
shippingRating, experienceRating) VALUES (4,4,3,4.5,5.0,5.0);
```

INSERT INTO customerFeedback (FeedbackID, orderID, customerID, productRating, shippingRating, experienceRating) VALUES (5,5,4,3.4,4.0,4.0);

INSERT INTO customerFeedback (FeedbackID, orderID, customerID, productRating, shippingRating, experienceRating) VALUES (6,6,5,4.0,4.0,4.0);

INSERT INTO customerFeedback (FeedbackID, orderID, customerID, productRating, shippingRating, experienceRating) VALUES (7,7,6,5.0,4.5,5.0);

INSERT INTO customerFeedback (FeedbackID, orderID, customerID, productRating, shippingRating, experienceRating) VALUES (8,8,7,5.0,5.0,5.0);

INSERT INTO customerFeedback (FeedbackID, orderID, customerID, productRating, shippingRating, experienceRating) VALUES (9,9,8,3.5,3.5,3.5);

INSERT INTO customerFeedback (FeedbackID, orderID, customerID, productRating, shippingRating, experienceRating) VALUES (10,10,9,4.5,3.0,4.5);

INSERT INTO customerFeedback (FeedbackID, orderID, customerID, productRating, shippingRating, experienceRating) VALUES (11,11,10,5.0,5.0,5.0);

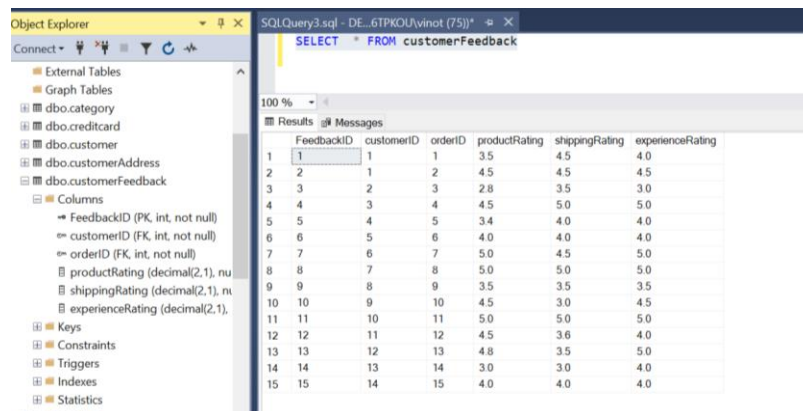
INSERT INTO customerFeedback (FeedbackID, orderID, customerID, productRating, shippingRating, experienceRating) VALUES (12,12,11,4.5,3.6,4.0);

INSERT INTO customerFeedback (FeedbackID, orderID, customerID, productRating, shippingRating, experienceRating) VALUES (13,13,12,4.8,3.5,5.0);

INSERT INTO customerFeedback (FeedbackID, orderID, customerID, productRating, shippingRating, experienceRating) VALUES (14,14,13,3.0,3.0,4.0);

INSERT INTO customerFeedback (FeedbackID, orderID, customerID, productRating, shippingRating, experienceRating) VALUES (15,15,14,4.0,4.0,4.0);

Displaying customerFeedback table: The columns are also displayed in the Object Explorer where the Primary and Foreign keys are depicted.



The screenshot displays the SQL Server Enterprise Manager interface. On the left, the Object Explorer shows the database structure, including tables and columns. The right pane shows the Results of a query executed against the customerFeedback table. The query is 'SELECT * FROM customerFeedback'. The Results pane shows 15 rows of data, with columns FeedbackID, customerID, orderID, productRating, shippingRating, and experienceRating.

| FeedbackID | customerID | orderID | productRating | shippingRating | experienceRating |
|------------|------------|---------|---------------|----------------|------------------|
| 1 | 1 | 1 | 3.5 | 4.5 | 4.0 |
| 2 | 2 | 1 | 4.5 | 4.5 | 4.5 |
| 3 | 3 | 2 | 2.8 | 3.5 | 3.0 |
| 4 | 4 | 3 | 4.5 | 5.0 | 5.0 |
| 5 | 5 | 4 | 5.0 | 4.0 | 4.0 |
| 6 | 6 | 5 | 4.0 | 4.0 | 4.0 |
| 7 | 7 | 6 | 5.0 | 4.5 | 5.0 |
| 8 | 8 | 7 | 5.0 | 5.0 | 5.0 |
| 9 | 9 | 8 | 3.5 | 3.5 | 3.5 |
| 10 | 10 | 9 | 4.5 | 3.0 | 4.5 |
| 11 | 11 | 10 | 5.0 | 5.0 | 5.0 |
| 12 | 12 | 11 | 4.5 | 3.6 | 4.0 |
| 13 | 13 | 12 | 4.8 | 3.5 | 5.0 |
| 14 | 14 | 13 | 3.0 | 3.0 | 4.0 |
| 15 | 15 | 14 | 4.0 | 4.0 | 4.0 |

Inserting into [order] table:

```
INSERT INTO [order] (orderID, customerID, orderDate, orderTotal, shipmentID, orderTime)
VALUES (1,1,'01/17/2020','$209',1,'20:30:12');
```

```
INSERT INTO [order] (orderID, customerID, orderDate, orderTotal, shipmentID, orderTime)
VALUES (2,1,'02/18/2020','$39',2,'20:30:12');
```

```
INSERT INTO [order] (orderID, customerID, orderDate, orderTotal, shipmentID, orderTime)
VALUES (3,2,'02/11/2020','$300',3,'10:30:06');
```

```
INSERT INTO [order] (orderID, customerID, orderDate, orderTotal, shipmentID, orderTime)
VALUES (4,3,'01/01/2020','$400',4,'09:30:04');
```

```
INSERT INTO [order] (orderID, customerID, orderDate, orderTotal, shipmentID, orderTime)
VALUES (5,4,'01/17/2020','$29',5,'12:30:08');
```

```
INSERT INTO [order] (orderID, customerID, orderDate, orderTotal, shipmentID, orderTime)
VALUES (6,5,'01/21/2020','$39',6,'21:30:11');
```

```
INSERT INTO [order] (orderID, customerID, orderDate, orderTotal, shipmentID, orderTime)
VALUES (7,6,'05/01/2020','$20',7,'13:00:12');
```

```
INSERT INTO [order] (orderID, customerID, orderDate, orderTotal, shipmentID, orderTime)
VALUES (8,7,'02/26/2020','$31',8,'15:00:12');
```

```
INSERT INTO [order] (orderID, customerID, orderDate, orderTotal, shipmentID, orderTime)
VALUES (9,8,'03/10/2020','$500',9,'16:13:00');
```

```
INSERT INTO [order] (orderID, customerID, orderDate, orderTotal, shipmentID, orderTime)
VALUES (10,9,'01/06/2020','$600',10,'20:30:12');
```

```
INSERT INTO [order] (orderID, customerID, orderDate, orderTotal, shipmentID, orderTime)
VALUES (11,10,'01/04/2020','$700',11,'17:15:36');
```

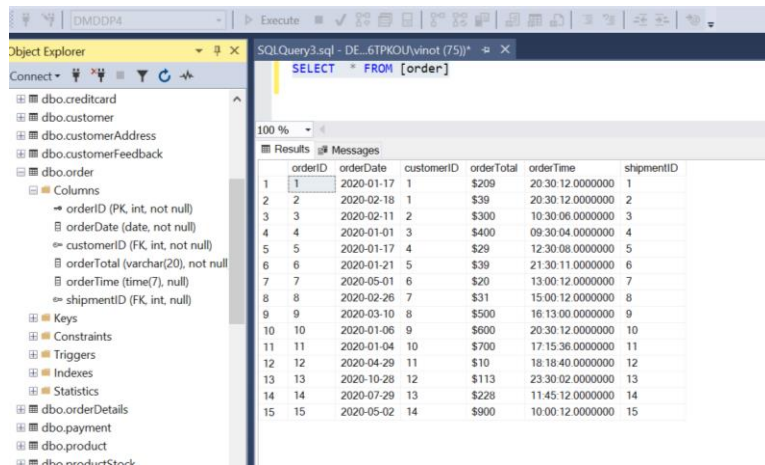
```
INSERT INTO [order] (orderID, customerID, orderDate, orderTotal, shipmentID, orderTime)
VALUES (12,11,'04/29/2020','$10',12,'18:18:40');
```

```
INSERT INTO [order] (orderID, customerID, orderDate, orderTotal, shipmentID, orderTime)
VALUES (13,12,'10/28/2020','$113',13,'23:30:02');
```

```
INSERT INTO [order] (orderID, customerID, orderDate, orderTotal, shipmentID, orderTime)
VALUES (14,13,'07/29/2020','$228',14,'11:45:12');
```

```
INSERT INTO [order] (orderID, customerID, orderDate, orderTotal, shipmentID, orderTime)
VALUES (15,14,'05/02/2020','$900',15,'10:00:12');
```

Displaying order table: The columns are also displayed in the Object Explorer where the Primary and Foreign keys are depicted.



Inserting into orderDetails table:

INSERT INTO orderDetails (orderDetailsID, orderID, productID, orderQuantity, fulfillmentStatus) VALUES (1,1,1,'4','Delivered');

INSERT INTO orderDetails (orderDetailsID, orderID, productID, orderQuantity, fulfillmentStatus) VALUES (2,2,1,'4','Delivered');

INSERT INTO orderDetails (orderDetailsID, orderID, productID, orderQuantity, fulfillmentStatus) VALUES (3,3,8,'2','Not Applied');

INSERT INTO orderDetails (orderDetailsID, orderID, productID, orderQuantity, fulfillmentStatus) VALUES (4,4,7,'3','Not Applied');

INSERT INTO orderDetails (orderDetailsID, orderID, productID, orderQuantity, fulfillmentStatus) VALUES (5,5,6,'2','Fulfilled');

INSERT INTO orderDetails (orderDetailsID, orderID, productID, orderQuantity, fulfillmentStatus) VALUES (6,6,5,'1','Not Applied');

INSERT INTO orderDetails (orderDetailsID, orderID, productID, orderQuantity, fulfillmentStatus) VALUES (7,7,4,'2','Fulfilled');

INSERT INTO orderDetails (orderDetailsID, orderID, productID, orderQuantity, fulfillmentStatus) VALUES (8,8,3,'1','Failed');

INSERT INTO orderDetails (orderDetailsID, orderID, productID, orderQuantity, fulfillmentStatus) VALUES (9,9,2,'3','Confrimed');

INSERT INTO orderDetails (orderDetailsID, orderID, productID, orderQuantity, fulfillmentStatus) VALUES (10,10,1,'1','Not Applied');

INSERT INTO orderDetails (orderDetailsID, orderID, productID, orderQuantity, fulfillmentStatus) VALUES (11,11,9,'2','Not Applied');

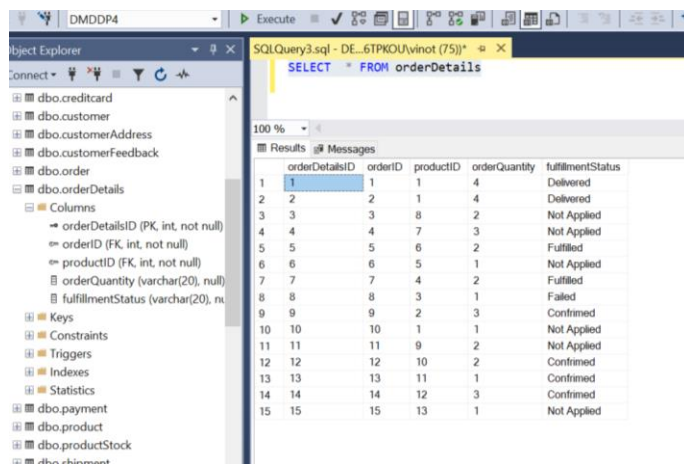
```
INSERT INTO orderDetails (orderDetailsID, orderID, productID, orderQuantity, fulfillmentStatus) VALUES (12,12,10,'2','Confrimed');
```

```
INSERT INTO orderDetails (orderDetailsID, orderID, productID, orderQuantity, fulfillmentStatus) VALUES (13,13,11,'1','Confrimed');
```

```
INSERT INTO orderDetails (orderDetailsID, orderID, productID, orderQuantity, fulfillmentStatus) VALUES (14,14,12,'3','Confrimed');
```

```
INSERT INTO orderDetails (orderDetailsID, orderID, productID, orderQuantity, fulfillmentStatus) VALUES (15,15,13,'1','Not Applied');
```

Displaying orderDetails table: The columns are also displayed in the Object Explorer where the Primary and Foreign keys are depicted.



| orderDetailsID | orderID | productID | orderQuantity | fulfillmentStatus |
|----------------|---------|-----------|---------------|-------------------|
| 1 | 1 | 1 | 4 | Delivered |
| 2 | 2 | 2 | 1 | Delivered |
| 3 | 3 | 3 | 8 | Not Applied |
| 4 | 4 | 4 | 7 | Not Applied |
| 5 | 5 | 5 | 6 | Fulfilled |
| 6 | 6 | 6 | 5 | Not Applied |
| 7 | 7 | 7 | 4 | Fulfilled |
| 8 | 8 | 8 | 3 | Failed |
| 9 | 9 | 9 | 2 | Confrimed |
| 10 | 10 | 10 | 1 | Not Applied |
| 11 | 11 | 11 | 9 | Not Applied |
| 12 | 12 | 12 | 10 | Confrimed |
| 13 | 13 | 13 | 11 | Confrimed |
| 14 | 14 | 14 | 12 | Confrimed |
| 15 | 15 | 15 | 13 | Not Applied |

Inserting into payment table:

```
INSERT INTO payment (paymentID, orderID, paymentMethod, paymentStatus, paymentDate, paymentTime, paymentError, creditCardNo) VALUES (1,1,'VISA','Approved','01/17/2020','20:32:02','NO ERROR', '123456789');
```

```
INSERT INTO payment (paymentID, orderID, paymentMethod, paymentStatus, paymentDate, paymentTime, paymentError, creditCardNo) VALUES (2,2,'VISA','Approved','02/11/2020','10:35:02','NO ERROR', '2222405343248877');
```

```
INSERT INTO payment (paymentID, orderID, paymentMethod, paymentStatus, paymentDate, paymentTime, paymentError, creditCardNo) VALUES (3,3,'VISA','Pending','01/01/2020','09:35:02','Pending', '2222990905257051');
```

```
INSERT INTO payment (paymentID, orderID, paymentMethod, paymentStatus, paymentDate, paymentTime, paymentError, creditCardNo) VALUES (4,4,'MASTERCARD','Failed','01/17/2020','12:35:02','Card Invalid', '2223007648726984');
```

```
INSERT INTO payment (paymentID, orderID, paymentMethod, paymentStatus, paymentDate,
paymentTime, paymentError, creditCardNo) VALUES
(5,5,'APPEX','Approved','01/21/2020','21:30:02','NO ERROR', '2223577120017656');
```

```
INSERT INTO payment (paymentID, orderID, paymentMethod, paymentStatus, paymentDate,
paymentTime, paymentError, creditCardNo) VALUES
(6,6,'VISA','Pending','05/01/2020','13:10:52','Pending', '378282246310005');
```

```
INSERT INTO payment (paymentID, orderID, paymentMethod, paymentStatus, paymentDate,
paymentTime, paymentError, creditCardNo) VALUES
(7,7,'MASTERCARD','Approved','02/26/2020','15:12:02','NO ERROR', '5105105105105100');
```

```
INSERT INTO payment (paymentID, orderID, paymentMethod, paymentStatus, paymentDate,
paymentTime, paymentError, creditCardNo) VALUES
(8,8,'APPEX','Failed','03/10/2020','16:32:02','Server Time Out', '5111010030175156');
```

```
INSERT INTO payment (paymentID, orderID, paymentMethod, paymentStatus, paymentDate,
paymentTime, paymentError, creditCardNo) VALUES
(9,9,'APPEX','Approved','01/06/2020','20:32:02','NO ERROR', '5185540810000019');
```

```
INSERT INTO payment (paymentID, orderID, paymentMethod, paymentStatus, paymentDate,
paymentTime, paymentError, creditCardNo) VALUES
(11,11,'VISA','Failed','04/29/2020','18:20:40','Unable to onnect', '5200828282828210');
```

```
INSERT INTO payment (paymentID, orderID, paymentMethod, paymentStatus, paymentDate,
paymentTime, paymentError, creditCardNo) VALUES
(13,13,'MASTERCARD','Approved','07/29/2020','11:45:02','NO ERROR',
'5204230080000017');
```

```
INSERT INTO payment (paymentID, orderID, paymentMethod, paymentStatus, paymentDate,
paymentTime, paymentError, creditCardNo) VALUES
(14,14,'APPEX','Approved','05/02/2020','10:20:04','NO ERROR', '5204740009900014');
```

```
INSERT INTO payment (paymentID, orderID, paymentMethod, paymentStatus, paymentDate,
paymentTime, paymentError, creditCardNo) VALUES
(15,15,'VISA','Failed','08/02/2020','09:08:13','Time Out', '5420923878724339');
```

Displaying payment table: The columns are also displayed in the Object Explorer where the Primary and Foreign keys are depicted.

| paymentID | orderID | paymentMethod | paymentStatus | paymentDate | paymentTime | paymentError | creditCardNo |
|-----------|---------|---------------|---------------|-------------|------------------|-------------------|------------------|
| 1 | 1 | VISA | Approved | 2020-01-17 | 20:32:02.0000000 | NO ERROR | 123456789 |
| 2 | 2 | VISA | Approved | 2020-02-11 | 10:35:02.0000000 | NO ERROR | 2222405343248877 |
| 3 | 3 | VISA | Pending | 2020-01-01 | 09:35:02.0000000 | Pending | 2222990905257051 |
| 4 | 4 | MASTERCARD | Failed | 2020-01-17 | 12:35:02.0000000 | Card Invalid | 2223007648726984 |
| 5 | 5 | APPEX | Approved | 2020-01-21 | 21:30:02.0000000 | NO ERROR | 2223577120017656 |
| 6 | 6 | VISA | Pending | 2020-05-01 | 13:10:52.0000000 | Pending | 378282246310005 |
| 7 | 7 | MASTERCARD | Approved | 2020-02-26 | 15:12:02.0000000 | NO ERROR | 5105105105105100 |
| 8 | 8 | APPEX | Failed | 2020-03-10 | 16:32:02.0000000 | Server Time Out | 5111010030175156 |
| 9 | 9 | APPEX | Approved | 2020-01-06 | 20:32:02.0000000 | NO ERROR | 5185540810000019 |
| 10 | 11 | VISA | Failed | 2020-04-29 | 18:20:40.0000000 | Unable to connect | 5204230080000017 |
| 11 | 13 | MASTERCARD | Approved | 2020-07-29 | 11:45:02.0000000 | NO ERROR | 5420823878724339 |
| 12 | 14 | APPEX | Approved | 2020-05-02 | 10:20:04.0000000 | NO ERROR | 5455330760000018 |
| 13 | 15 | VISA | Failed | 2020-08-02 | 09:08:13.0000000 | Time Out | NULL |

Inserting into product table:

INSERT INTO product (productID, productName, categoryID, productPrice, productColor, productSize, discount, productWeight, productPicture, productDescription)

VALUES (1,'Mustard T-Shirt',1,35,'yellow','Small','10%','120gms',
'/Users/ritz/documents/Database/Homeworks/Project/9b375b94dd6c9f3f9c6079cb8e8111a8.jpg',
'88% Polyester, 12% Spandex, Machine Wash');

INSERT INTO product (productID, productName, categoryID, productPrice, productColor, productSize, discount, productWeight, productPicture, productDescription)

VALUES (2,'Mustard T-Shirts',1,40,'yellow','Large','10%','130gms',
'/Users/ritz/documents/Database/Homeworks/Project/T-shirt.jpg','88% polyester,12%
spandex,machine wash.');

INSERT INTO product (productID, productName, categoryID, productPrice, productColor, productSize, discount, productWeight, productPicture, productDescription)

VALUES (3,'Roadster Shirts',2,103,'blue','Medium','10%','130gms',
'/Users/ritz/documents/Database/Homeworks/Project/RoadsterShirtSmall.jpg','88%
polyester,12% spandex,machine wash.');

INSERT INTO product (productID, productName, categoryID, productPrice, productColor, productSize, discount, productWeight, productPicture, productDescription)

VALUES (4,'Forever Sweaters',3,40,'pink','large','10%','120gms',
'/Users/ritz/documents/Database/Homeworks/Project/ForeverSweaterslarge.jpg','88%
polyester,12% wool, Hand wash.');

INSERT INTO product (productID, productName, categoryID, productPrice, productColor, productSize, discount, productWeight, productPicture, productDescription)

```
VALUES (5,'Forever Sweatshirts',4,39,'white','Medium','10%','130gms',  
'/Users/ritz/documents/Database/Homeworks/Project/ForeverSweatshirtsWhiteMedium.jpg','90%  
cotton, machine wash.');
```

```
INSERT INTO product (productID, productName, categoryID, productPrice, productColor,  
productSize, discount, productWeight, productPicture, productDescription)
```

```
VALUES (6,'Forever Sweatshirts',4,39,'black','Medium','10%','130gms',  
'/Users/ritz/documents/Database/Homeworks/Project/ForeverSweatshirtsBlackMedium.jpg','90%  
cotton, machine wash.');
```

```
INSERT INTO product (productID, productName, categoryID, productPrice, productColor,  
productSize, discount, productWeight, productPicture, productDescription)
```

```
VALUES (7,'Forever Sweatshirts',4,42,'pink','large','10%','130gms',  
'/Users/ritz/documents/Database/Homeworks/Project/ForeverSweatshirtsPinkLarge.jpg','90%  
cotton, machine wash.');
```

```
INSERT INTO product (productID, productName, categoryID, productPrice, productColor,  
productSize, discount, productWeight, productPicture, productDescription)
```

```
VALUES (8,'Polo Jackets',5,40,'blue','medium','10%','150gms',  
'/Users/ritz/documents/Database/Homeworks/Project/ForeverSweatshirtsPinkLarge.jpg','90%  
Denim, 10% Cotton machine wash.');
```

```
INSERT INTO product (productID, productName, categoryID, productPrice, productColor,  
productSize, discount, productWeight, productPicture, productDescription)
```

```
VALUES (9,'Casual Trousers',6,70,'beige','medium','20%','130gms',  
'/Users/ritz/documents/Database/Homeworks/Project/CasualTrousers.jpg','90% cotton, machine  
wash.');
```

```
INSERT INTO product (productID, productName, categoryID, productPrice, productColor,  
productSize, discount, productWeight, productPicture, productDescription)
```

```
VALUES (10,'Jaylane Shorts',7,70,'black','medium','20%','130gms',  
'/Users/ritz/documents/Database/Homeworks/Project/JaylaneBlackShorts.jpg','90% cotton,  
machine wash.');
```

```
INSERT INTO product (productID, productName, categoryID, productPrice, productColor,  
productSize, discount, productWeight, productPicture, productDescription)
```

```
VALUES (11,'Joggers',8,60,'black','medium','20%','130gms',  
'/Users/ritz/documents/Database/Homeworks/Project/BlackJoggers.jpg','90% cotton, machine  
wash.');
```

```
INSERT INTO product (productID, productName, categoryID, productPrice, productColor,  
productSize, discount, productWeight, productPicture, productDescription)
```

```
VALUES (12,'Dresses',9,60,'red','medium','20%','130gms',
'/Users/ritz/documents/Database/Homeworks/Project/RedDresses.jpg','90% cotton, machine
wash.');
```

```
INSERT INTO product (productID, productName, categoryID, productPrice, productColor,
productSize, discount, productWeight, productPicture, productDescription)
```

```
VALUES (13,'Jumpsuits',10,30,'blue print on white','medium','20%','130gms',
'/Users/ritz/documents/Database/Homeworks/Project/Jumpsuits.jpg','90% cotton, machine
wash.');
```

```
INSERT INTO product (productID, productName, categoryID, productPrice, productColor,
productSize, discount, productWeight, productPicture, productDescription)
```

```
VALUES (14,'Skirts',11,35,'brown','medium','20%','130gms',
'/Users/ritz/documents/Database/Homeworks/Project/brownSkirts.jpg','90% cotton, machine
wash.');
```

```
INSERT INTO product (productID, productName, categoryID, productPrice, productColor,
productSize, discount, productWeight, productPicture, productDescription)
```

```
VALUES (15,'Shrugs',12,35,'off white','medium','20%','130gms',
'/Users/ritz/documents/Database/Homeworks/Project/OffWhiteShrugs.jpg','90% cotton, machine
wash.');
```

Displaying product table: The columns are also displayed in the Object Explorer where the Primary and Foreign keys are depicted.

| productID | categoryID | productName | productPrice | productColor | productSize | discount | productWeight | productDescription | productPicture |
|-----------|------------|---------------------|--------------|---------------------|-------------|----------|---------------|--|--|
| 1 | 1 | Mustard T-Shirt | 0 | yellow | Small | 10% | 120gms | 88% Polyester, 12% Spandex, Machine Wash | /Users/ritz/documents/Database/Homeworks/Project/... |
| 2 | 1 | Mustard T-Shirts | 0 | yellow | Large | 10% | 130gms | 88% polyester, 12% spandex, machine wash | /Users/ritz/documents/Database/Homeworks/Project/... |
| 3 | 2 | Roadster Shirts | 0 | blue | Medium | 10% | 130gms | 88% polyester, 12% spandex, machine wash | /Users/ritz/documents/Database/Homeworks/Project/... |
| 4 | 3 | Forever Sweatshirts | 0 | pink | large | 10% | 120gms | 88% polyester, 12% wool, Hand wash | /Users/ritz/documents/Database/Homeworks/Project/... |
| 5 | 4 | Forever Sweatshirts | 0 | white | Medium | 10% | 130gms | 90% cotton, machine wash | /Users/ritz/documents/Database/Homeworks/Project/... |
| 6 | 4 | Forever Sweatshirts | 0 | black | Medium | 10% | 130gms | 90% cotton, machine wash | /Users/ritz/documents/Database/Homeworks/Project/... |
| 7 | 4 | Forever Sweatshirts | 0 | pink | large | 10% | 130gms | 90% cotton, machine wash | /Users/ritz/documents/Database/Homeworks/Project/... |
| 8 | 5 | Polo Jackets | 0 | blue | medium | 10% | 150gms | 90% Denim, 10% Cotton machine wash | /Users/ritz/documents/Database/Homeworks/Project/... |
| 9 | 6 | Casual Trousers | 0 | beige | medium | 20% | 130gms | 90% cotton, machine wash | /Users/ritz/documents/Database/Homeworks/Project/... |
| 10 | 7 | Jaylane Shorts | 0 | black | medium | 20% | 130gms | 90% cotton, machine wash | /Users/ritz/documents/Database/Homeworks/Project/... |
| 11 | 8 | Joggers | 0 | black | medium | 20% | 130gms | 90% cotton, machine wash | /Users/ritz/documents/Database/Homeworks/Project/... |
| 12 | 9 | Dresses | 0 | red | medium | 20% | 130gms | 90% cotton, machine wash | /Users/ritz/documents/Database/Homeworks/Project/... |
| 13 | 10 | Jumpsuits | 0 | blue print on white | medium | 20% | 130gms | 90% cotton, machine wash | /Users/ritz/documents/Database/Homeworks/Project/... |
| 14 | 11 | Skirts | 0 | brown | medium | 20% | 130gms | 90% cotton, machine wash | /Users/ritz/documents/Database/Homeworks/Project/... |
| 15 | 12 | Shrugs | 0 | off white | medium | 20% | 130gms | 90% cotton, machine wash | /Users/ritz/documents/Database/Homeworks/Project/... |

Inserting into productStock table:

```
INSERT INTO productStock (productStockID, productID, unitsInStock, unitsInOrder) VALUES
(1,1,'10','4');
```

```
INSERT INTO productStock (productStockID, productID, unitsInStock, unitsInOrder) VALUES (2,2,'10','4');
```

```
INSERT INTO productStock (productStockID, productID, unitsInStock, unitsInOrder) VALUES (3,3,'20','6');
```

```
INSERT INTO productStock (productStockID, productID, unitsInStock, unitsInOrder) VALUES (4,4,'40','15');
```

```
INSERT INTO productStock (productStockID, productID, unitsInStock, unitsInOrder) VALUES (5,5,'10','2');
```

```
INSERT INTO productStock (productStockID, productID, unitsInStock, unitsInOrder) VALUES (6,6,'30','20');
```

```
INSERT INTO productStock (productStockID, productID, unitsInStock, unitsInOrder) VALUES (7,7,'35','25');
```

```
INSERT INTO productStock (productStockID, productID, unitsInStock, unitsInOrder) VALUES (8,8,'30','5');
```

```
INSERT INTO productStock (productStockID, productID, unitsInStock, unitsInOrder) VALUES (9,9,'20','14');
```

```
INSERT INTO productStock (productStockID, productID, unitsInStock, unitsInOrder) VALUES (10,10,'25','14');
```

```
INSERT INTO productStock (productStockID, productID, unitsInStock, unitsInOrder) VALUES (11,11,'30','24');
```

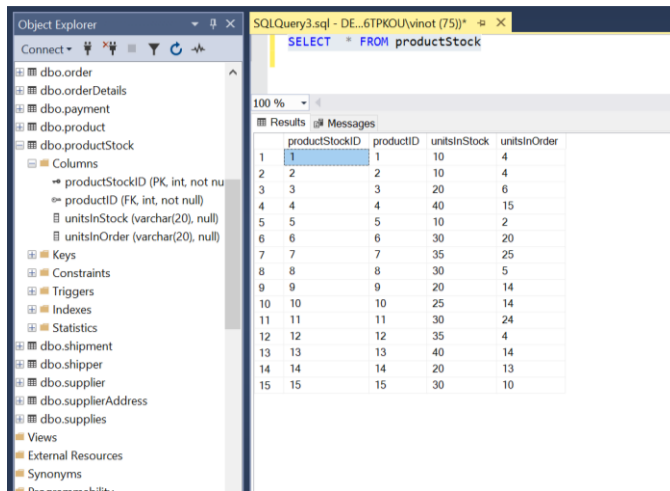
```
INSERT INTO productStock (productStockID, productID, unitsInStock, unitsInOrder) VALUES (12,12,'35','4');
```

```
INSERT INTO productStock (productStockID, productID, unitsInStock, unitsInOrder) VALUES (13,13,'40','14');
```

```
INSERT INTO productStock (productStockID, productID, unitsInStock, unitsInOrder) VALUES (14,14,'20','13');
```

```
INSERT INTO productStock (productStockID, productID, unitsInStock, unitsInOrder) VALUES (15,15,'30','10');
```

Displaying productStock table: The columns are also displayed in the Object Explorer where the Primary and Foreign keys are depicted.



Inserting into shipment table:

INSERT INTO shipment (shipmentID, customerAddressID, shippingDATE, shippingMethod)
VALUES (1,1,'01/18/2020','USPS priority shipping');

INSERT INTO shipment (shipmentID, customerAddressID, shippingDATE, shippingMethod)
VALUES (2,1,'02/18/2020','USPS priority shipping');

INSERT INTO shipment (shipmentID, customerAddressID, shippingDATE, shippingMethod)
VALUES (3,3,'02/20/2020','UPS Ground');

INSERT INTO shipment (shipmentID, customerAddressID, shippingDATE, shippingMethod)
VALUES (4,4,'02/01/2020','USPS First Class Package');

INSERT INTO shipment (shipmentID, customerAddressID, shippingDATE, shippingMethod)
VALUES (5,5,'03/02/2020','UPS Ground');

INSERT INTO shipment (shipmentID, customerAddressID, shippingDATE, shippingMethod)
VALUES (6,6,'01/23/2020','UPS 3-Day Select');

INSERT INTO shipment (shipmentID, customerAddressID, shippingDATE, shippingMethod)
VALUES (7,7,'07/01/2020','UPS NEXT DAY Air');

INSERT INTO shipment (shipmentID, customerAddressID, shippingDATE, shippingMethod)
VALUES (8,8,'05/03/2020','FedEX Ground');

INSERT INTO shipment (shipmentID, customerAddressID, shippingDATE, shippingMethod)
VALUES (9,9,'11/10/2020','UPS 2-Day Air');


```
INSERT INTO shipment (shipmentID, customerAddressID, shippingDate, shippingMethod)
VALUES (10,10,'08/06/2020','FedEx First Class Package');
```

```
INSERT INTO shipment (shipmentID, customerAddressID, shippingDate, shippingMethod)
VALUES (11,11,'06/04/2020','FedEx Next Day Air');
```

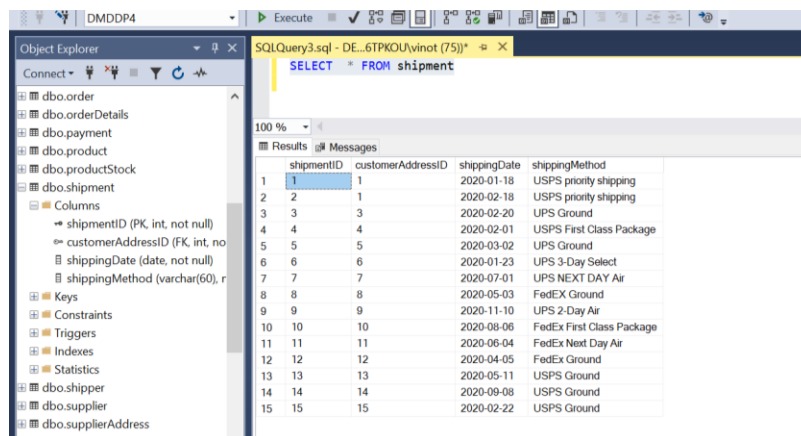
```
INSERT INTO shipment (shipmentID, customerAddressID, shippingDate, shippingMethod)
VALUES (12,12,'04/05/2020','FedEx Ground');
```

```
INSERT INTO shipment (shipmentID, customerAddressID, shippingDate, shippingMethod)
VALUES (13,13,'05/11/2020','USPS Ground');
```

```
INSERT INTO shipment (shipmentID, customerAddressID, shippingDate, shippingMethod)
VALUES (14,14,'09/08/2020','USPS Ground');
```

```
INSERT INTO shipment (shipmentID, customerAddressID, shippingDate, shippingMethod)
VALUES (15,15,'02/22/2020','USPS Ground');
```

Displaying shipment table: The columns are also displayed in the Object Explorer where the Primary and Foreign keys are depicted.



The screenshot shows the SQL Server Enterprise Manager interface. On the left, the Object Explorer displays the database structure, including tables like dbo.order, dbo.orderDetails, dbo.payment, dbo.product, dbo.productStock, and dbo.shipment. The dbo.shipment table is expanded, showing its columns: shipmentID (PK, int, not null), customerAddressID (FK, int, not null), shippingDate (date, not null), and shippingMethod (varchar(60), not null). The right pane shows the results of a SELECT query from the shipment table, displaying 15 rows of data.

| shipmentID | customerAddressID | shippingDate | shippingMethod |
|------------|-------------------|--------------|---------------------------|
| 1 | 1 | 2020-01-18 | USPS priority shipping |
| 2 | 1 | 2020-02-18 | USPS priority shipping |
| 3 | 3 | 2020-02-20 | UPS Ground |
| 4 | 4 | 2020-02-01 | USPS First Class Package |
| 5 | 5 | 2020-03-02 | UPS Ground |
| 6 | 6 | 2020-01-23 | UPS 3-Day Select |
| 7 | 7 | 2020-07-01 | UPS NEXT DAY Air |
| 8 | 8 | 2020-05-03 | FedEx Ground |
| 9 | 9 | 2020-11-10 | UPS 2-Day Air |
| 10 | 10 | 2020-08-06 | FedEx First Class Package |
| 11 | 11 | 2020-06-04 | FedEx Next Day Air |
| 12 | 12 | 2020-04-05 | FedEx Ground |
| 13 | 13 | 2020-05-11 | USPS Ground |
| 14 | 14 | 2020-09-08 | USPS Ground |
| 15 | 15 | 2020-02-22 | USPS Ground |

Inserting into shipper table:

```
INSERT INTO shipper (shipperID, shipmentID, shipperName, shipperPhoneNo) VALUES
(1,1,'Real Essentials','4312546565');
```

```
INSERT INTO shipper (shipperID, shipmentID, shipperName, shipperPhoneNo) VALUES
(2,15,'Real Essentials','4312546565');
```

```
INSERT INTO shipper (shipperID, shipmentID, shipperName, shipperPhoneNo) VALUES
(3,14,'Rowey','74623104362');
```

INSERT INTO shipper (shipperID, shipmentID, shipperName, shipperPhoneNo) VALUES (4,13,'Mayhem','84730654265');

INSERT INTO shipper (shipperID, shipmentID, shipperName, shipperPhoneNo) VALUES (5,12,'for-Ever','89734065245');

INSERT INTO shipper (shipperID, shipmentID, shipperName, shipperPhoneNo) VALUES (6,11,'Real clothing','12381521343');

INSERT INTO shipper (shipperID, shipmentID, shipperName, shipperPhoneNo) VALUES (7,10,'Essentials','893648724512');

INSERT INTO shipper (shipperID, shipmentID, shipperName, shipperPhoneNo) VALUES (8,9,'Corry Clothing','65434213121');

INSERT INTO shipper (shipperID, shipmentID, shipperName, shipperPhoneNo) VALUES (9,8,'Emma Boutique','12313435564');

INSERT INTO shipper (shipperID, shipmentID, shipperName, shipperPhoneNo) VALUES (10,7,'Femina','371287814432');

INSERT INTO shipper (shipperID, shipmentID, shipperName, shipperPhoneNo) VALUES (11,6,'Jay Cotton','64392745613');

INSERT INTO shipper (shipperID, shipmentID, shipperName, shipperPhoneNo) VALUES (12,5,'Cotton King','45623911243');

INSERT INTO shipper (shipperID, shipmentID, shipperName, shipperPhoneNo) VALUES (13,4,'Jane Clothes','18726372423');

INSERT INTO shipper (shipperID, shipmentID, shipperName, shipperPhoneNo) VALUES (14,3,'KBC Clothing','46378126436');

INSERT INTO shipper (shipperID, shipmentID, shipperName, shipperPhoneNo) VALUES (15,2,'lia Cottons','01923827897');

INSERT INTO shipper (shipperID, shipmentID, shipperName, shipperPhoneNo) VALUES (16,1,'Cali Clothing','76545321312');

Displaying shipper table: The columns are also displayed in the Object Explorer where the Primary and Foreign keys are depicted.

| shipperID | shipmentID | shipperName | shipperPhoneNo |
|-----------|------------|-----------------|----------------|
| 1 | 1 | Real Essentials | 4312546565 |
| 2 | 2 | Real Essentials | 4312546565 |
| 3 | 3 | Rowey | 74623104362 |
| 4 | 4 | Mayhem | 84730654265 |
| 5 | 5 | for-Ever | 89734065245 |
| 6 | 6 | Real clothing | 12381521343 |
| 7 | 7 | Essentials | 883648724512 |
| 8 | 8 | Cory Clothing | 65434213121 |
| 9 | 9 | Emma Boutique | 12313435564 |
| 10 | 10 | Femina | 371287814432 |
| 11 | 11 | Jay Colton | 64392745613 |
| 12 | 12 | Cotton King | 45623911243 |
| 13 | 13 | Jane Clothes | 18726372423 |
| 14 | 14 | KBC Clothing | 46378126436 |
| 15 | 15 | Iia Cottons | 01923827897 |
| 16 | 16 | Cali Clothing | 76545321312 |

Inserting into supplier table:

INSERT INTO supplier (supplierID, supplierFirstName, supplierLastName, supplierPhoneNo, supplierEmail, supplierURL, supplierDescription)

VALUES (1,'Tamara','Howe','1213431320','Tamara@gmail.com','www.THSuppliers.com','we supply best of clothing');

INSERT INTO supplier (supplierID, supplierFirstName, supplierLastName, supplierPhoneNo, supplierEmail, supplierURL, supplierDescription)

VALUES(2,'Owen','Babara','2233445566','owen@gmail.com','www.OwenSuppliers.com','we supply all kind of clothes');

INSERT INTO supplier (supplierID, supplierFirstName, supplierLastName, supplierPhoneNo, supplierEmail, supplierURL, supplierDescription)

VALUES(3,'Amara','welson','9087654321','amara@gmail.com','www.amaraBoutique.com','world standards clothing');

INSERT INTO supplier (supplierID, supplierFirstName, supplierLastName, supplierPhoneNo, supplierEmail, supplierURL, supplierDescription)

VALUES(4,'Neha','Kishore','4793284123','neha@gmail.com','www.nehaclathins.com','Best clothing');

INSERT INTO supplier (supplierID, supplierFirstName, supplierLastName, supplierPhoneNo, supplierEmail, supplierURL, supplierDescription)

VALUES(5,'Ria','Lamba','9283018349','ria@gmail.com','www.riaBoutique.com','Finest Clothes');

INSERT INTO supplier (supplierID, supplierFirstName, supplierLastName, supplierPhoneNo, supplierEmail, supplierURL, supplierDescription)

VALUES(6,'Mark','Mayer','8237138236','mark@gmail.com','www.markSupplies.com','best quality clothes');

INSERT INTO supplier (supplierID, supplierFirstName, supplierLastName, supplierPhoneNo, supplierEmail, supplierURL, supplierDescription)

VALUES(7,'Leo','Lama','1903892832','Leo@gmail.com','www.leoClothing.com','Finest clothings');

INSERT INTO supplier (supplierID, supplierFirstName, supplierLastName, supplierPhoneNo, supplierEmail, supplierURL, supplierDescription)

VALUES(8,'Jane','Corry','8278139217','jane@gmail.com','www.janeBoutique.com','Best Clothing');

INSERT INTO supplier (supplierID, supplierFirstName, supplierLastName, supplierPhoneNo, supplierEmail, supplierURL, supplierDescription)

VALUES(9,'Kristine','Walker','2837189782','Kristine@gmail.com','www.kristineBoutique.com','we supply best quality clothes');

INSERT INTO supplier (supplierID, supplierFirstName, supplierLastName, supplierPhoneNo, supplierEmail, supplierURL, supplierDescription)

VALUES(10,'Ariya','Sen','2918382321','ariya@gmail.com','www.ariyaClothing.com','best quality clothes');

INSERT INTO supplier (supplierID, supplierFirstName, supplierLastName, supplierPhoneNo, supplierEmail, supplierURL, supplierDescription)

VALUES(11,'Maureen','Den','8237923811','maureen@gmail.com','www.maureenClothing.com','finest Clothes');

INSERT INTO supplier (supplierID, supplierFirstName, supplierLastName, supplierPhoneNo, supplierEmail, supplierURL, supplierDescription)

VALUES(12,'Rachel','Doe','2371837927','rachel@gmail.com','www.rachelDaleClothing.com','best clothing');

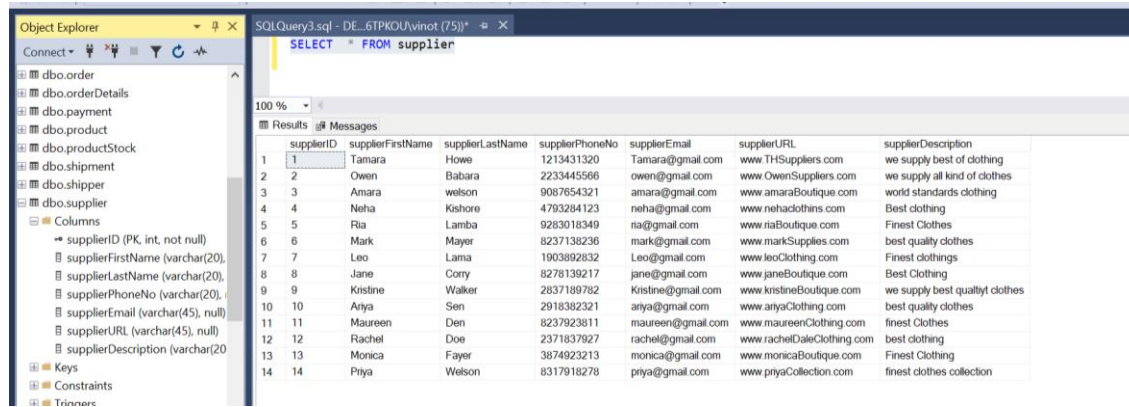
INSERT INTO supplier (supplierID, supplierFirstName, supplierLastName, supplierPhoneNo, supplierEmail, supplierURL, supplierDescription)

VALUES(13,'Monica','Fayer','3874923213','monica@gmail.com','www.monicaBoutique.com','Finest Clothing');

INSERT INTO supplier (supplierID, supplierFirstName, supplierLastName, supplierPhoneNo, supplierEmail, supplierURL, supplierDescription)

VALUES(14,'Priya','Welson','8317918278','priya@gmail.com','www.priyaCollection.com','finest clothes collection');

Displaying supplier table: The columns are also displayed in the Object Explorer where the Primary and Foreign keys are depicted.



| | supplierID | supplierFirstName | supplierLastName | supplierPhoneNo | supplierEmail | supplierURL | supplierDescription |
|----|------------|-------------------|------------------|-----------------|--------------------|----------------------------|--------------------------------|
| 1 | 1 | Tamara | Howe | 1213431320 | Tamara@gmail.com | www.THSuppliers.com | we supply best of clothing |
| 2 | 2 | Owen | Babara | 2233445566 | owen@gmail.com | www.OwenSuppliers.com | we supply all kind of clothes |
| 3 | 3 | Amara | welson | 9087654321 | amara@gmail.com | www.amaraBoutique.com | world standards clothing |
| 4 | 4 | Neha | Kishore | 4793284123 | neha@gmail.com | www.nehaClothins.com | Best clothing |
| 5 | 5 | Ria | Lamba | 9263018349 | na@gmail.com | www.naBoutique.com | Finest Clothes |
| 6 | 6 | Mark | Mayer | 8237138236 | mark@gmail.com | www.markSupplies.com | best quality clothes |
| 7 | 7 | Leo | Lama | 1903892832 | Leo@gmail.com | www.leoClothing.com | Finest clothings |
| 8 | 8 | Jane | Cory | 8278139217 | jane@gmail.com | www.janeBoutique.com | Best Clothing |
| 9 | 9 | Kristine | Walker | 2637189782 | Kristine@gmail.com | www.kristineBoutique.com | we supply best quality clothes |
| 10 | 10 | Ariya | Sen | 2918382321 | ariya@gmail.com | www.ariyaClothing.com | best quality clothes |
| 11 | 11 | Maureen | Den | 8237923811 | maureen@gmail.com | www.maureenClothing.com | finest Clothes |
| 12 | 12 | Rachel | Doe | 2371837927 | rachel@gmail.com | www.rachelDaleClothing.com | best clothing |
| 13 | 13 | Monica | Fayer | 3874923213 | monica@gmail.com | www.monicaBoutique.com | Finest Clothing |
| 14 | 14 | Priya | Welson | 8317918278 | priya@gmail.com | www.priyaCollection.com | finest clothes collection |

Inserting into supplierAddress table:

```
INSERT INTO supplierAddress (supplierAddressID, supplierID, street,city, postalCode)
VALUES (1,1,'AntonioStreet','RoseVille','11523');
```

```
INSERT INTO supplierAddress (supplierAddressID, supplierID, street,city, postalCode)
VALUES (2,2,'FirstStreet','Woburn','10923');
```

```
INSERT INTO supplierAddress (supplierAddressID, supplierID, street,city, postalCode)
VALUES (3,3,'Second Street','Framingham','19203');
```

```
INSERT INTO supplierAddress (supplierAddressID, supplierID, street,city, postalCode)
VALUES (4,4,'Cedar Street','SomerVille','10923');
```

```
INSERT INTO supplierAddress (supplierAddressID, supplierID, street,city, postalCode)
VALUES (5,5,'Parch Street','Mankota','10934');
```

```
INSERT INTO supplierAddress (supplierAddressID, supplierID, street,city, postalCode)
VALUES (6,6,'Third Street','Bessemer','29831');
```

```
INSERT INTO supplierAddress (supplierAddressID, supplierID, street,city, postalCode)
VALUES (7,7,'Long street','Atmore','37682');
```

```
INSERT INTO supplierAddress (supplierAddressID, supplierID, street,city, postalCode)
VALUES (8,8,'Sesame street','Auburn','19082');
```

```
INSERT INTO supplierAddress (supplierAddressID, supplierID, street,city, postalCode)
VALUES (9,9,'Fourth street','Clanton','92183');
```

```
INSERT INTO supplierAddress (supplierAddressID, supplierID, street,city, postalCode)
VALUES (10,10,'Marlboro','Arlington','92138');
```

```
INSERT INTO supplierAddress (supplierAddressID, supplierID, street,city, postalCode)
VALUES (11,11,'Pine Strret','Andover','92108');
```

```
INSERT INTO supplierAddress (supplierAddressID, supplierID, street,city, postalCode)
VALUES (12,12,'Basket Street','Bedford','28932');
```

```
INSERT INTO supplierAddress (supplierAddressID, supplierID, street,city, postalCode)
VALUES (13,13,'Baker Street','Braintree','29183');
```

```
INSERT INTO supplierAddress (supplierAddressID, supplierID, street,city, postalCode)
VALUES (14,14,'Mellow Strret','Csambridge','82719');
```

Displaying supplierAddress table: The columns are also displayed in the Object Explorer where the Primary and Foreign keys are depicted.

The screenshot shows the SQL Server Enterprise Manager interface. On the left, the Object Explorer displays the database structure, including the supplierAddress table. The table's columns are listed: supplierAddressID (PK, int, not null), supplierID (FK, int, not null), street (varchar(20), not null), city (varchar(20), null), and postalCode (varchar(20), null). The Keys section shows a primary key on supplierAddressID and a foreign key on supplierID. The right pane shows the query results for the query 'SELECT * FROM supplierAddress'. The results are displayed in a grid with 5 columns: supplierAddressID, supplierID, street, city, and postalCode. The data rows are numbered 1 through 14.

| supplierAddressID | supplierID | street | city | postalCode |
|-------------------|------------|---------------|-------------|------------|
| 1 | 1 | AntonioStreet | RoseVile | 11523 |
| 2 | 2 | FirstStreet | Woburn | 10923 |
| 3 | 3 | Second Street | Frammingham | 19203 |
| 4 | 4 | Cedar Street | SomerVile | 10923 |
| 5 | 5 | Parch Street | Mankola | 10934 |
| 6 | 6 | Third Street | Bessemer | 29831 |
| 7 | 7 | Long street | Altmore | 37682 |
| 8 | 8 | Sesame street | Auburn | 19082 |
| 9 | 9 | Fourth street | Clanton | 92183 |
| 10 | 10 | Marlboro | Arlington | 92138 |
| 11 | 11 | Pine Street | Andover | 92108 |
| 12 | 12 | Basket Street | Bedford | 28932 |
| 13 | 13 | Baker Street | Braintree | 29183 |
| 14 | 14 | Mellow Street | Csambridge | 82719 |

Inserting into supplies table:

```
INSERT INTO supplies (supplierID, productID) VALUES (1,1);
```

```
INSERT INTO supplies (supplierID, productID) VALUES (2,2);
```

```
INSERT INTO supplies (supplierID, productID) VALUES (3,3);
```

```
INSERT INTO supplies (supplierID, productID) VALUES (4,4);
```

```
INSERT INTO supplies (supplierID, productID) VALUES (5,5);
```

```
INSERT INTO supplies (supplierID, productID) VALUES (6,6);
```

```
INSERT INTO supplies (supplierID, productID) VALUES (7,7);
```

```
INSERT INTO supplies (supplierID, productID) VALUES (8,8);
```

```
INSERT INTO supplies (supplierID, productID) VALUES (9,9);
```

```
INSERT INTO supplies (supplierID, productID) VALUES (10,10);
```

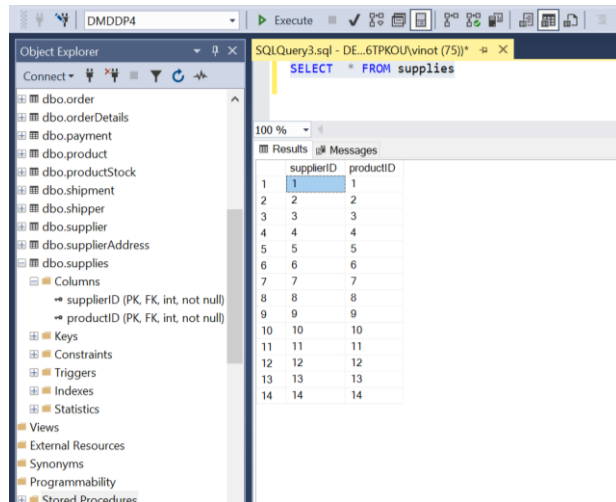
```
INSERT INTO supplies (supplierID, productID) VALUES (11,11);
```

INSERT INTO supplies (supplierID, productID) VALUES (12,12);

INSERT INTO supplies (supplierID, productID) VALUES (13,13);

INSERT INTO supplies (supplierID, productID) VALUES (14,14);

Displaying supplies table: The columns are also displayed in the Object Explorer where the Primary and Foreign keys are depicted.



DATA ENCRYPTION:

--CHECK IF ANY KEY EXISTS--

```
SELECT *  
FROM sys.symmetric_keys  
WHERE name = '##MS_ServiceMasterKey##';  
GO
```

-- Create database Key

```
CREATE MASTER KEY ENCRYPTION BY PASSWORD = 'DMDDP4Encrypt';  
GO
```

-- Create self signed certificate

```
CREATE CERTIFICATE Certificate1  
WITH SUBJECT = 'EncryptCreditCardData';  
GO
```

-- Create symmetric Key

```
CREATE SYMMETRIC KEY SymmetricKey1  
WITH ALGORITHM = AES_128  
ENCRYPTION BY CERTIFICATE Certificate1;  
GO
```

ALTER TABLE creditCard

```
ADD credit_card_no_encrypt varbinary(MAX) NULL  
GO
```


-- Opens the symmetric key for use

OPEN SYMMETRIC KEY SymmetricKey1

DECRYPTION BY CERTIFICATE Certificate1;

GO

-- Populating encrypted credit card no into new column

UPDATE creditCard

SET Credit_card_number_encrypt = EncryptByKey
(Key_GUID('SymmetricKey1'),creditCardNo)

FROM creditCard;

GO

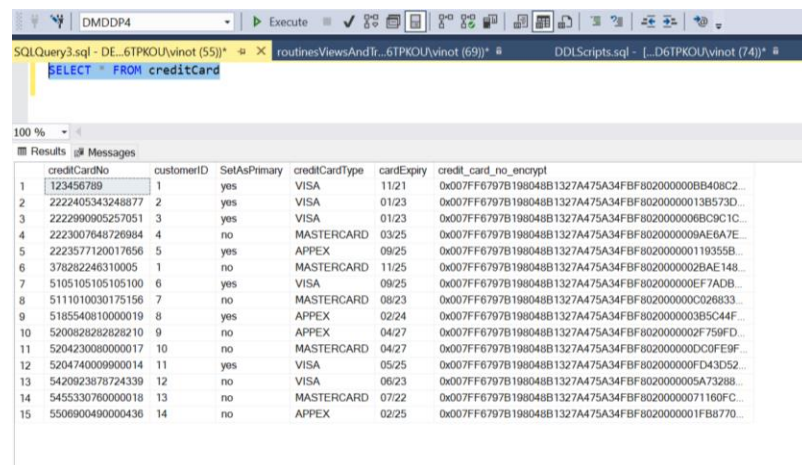
-- Closes the symmetric key

CLOSE SYMMETRIC KEY SymmetricKey1;

GO

----CHECK THE NEW ENCRYPTED DATA-----

SELECT * FROM creditCard



| | creditCardNo | customerID | SetAsPrimary | creditCardType | cardExpiry | credit_card_no_encrypt |
|----|-------------------|------------|--------------|----------------|------------|--|
| 1 | 123456789 | 1 | yes | VISA | 11/21 | 0x007FF6797B198048B1327A475A34FBF80200000BB408C2... |
| 2 | 2222405343248877 | 2 | yes | VISA | 01/23 | 0x007FF6797B198048B1327A475A34FBF80200000013B573D... |
| 3 | 2222990905257051 | 3 | yes | VISA | 01/23 | 0x007FF6797B198048B1327A475A34FBF8020000006BC9C1C... |
| 4 | 2223007648726984 | 4 | no | MASTERCARD | 03/25 | 0x007FF6797B198048B1327A475A34FBF8020000009AE6A7E... |
| 5 | 2223577120017656 | 5 | yes | APPEX | 09/25 | 0x007FF6797B198048B1327A475A34FBF80200000019355B... |
| 6 | 378282246310005 | 1 | no | MASTERCARD | 11/25 | 0x007FF6797B198048B1327A475A34FBF8020000002BAE148... |
| 7 | 5105105105105100 | 6 | yes | VISA | 09/25 | 0x007FF6797B198048B1327A475A34FBF802000000EF7ADB... |
| 8 | 5111010030175156 | 7 | no | MASTERCARD | 08/23 | 0x007FF6797B198048B1327A475A34FBF802000000C026833... |
| 9 | 5185540810000019 | 8 | yes | APPEX | 02/24 | 0x007FF6797B198048B1327A475A34FBF8020000003B5C44F... |
| 10 | 5200828282828210 | 9 | no | APPEX | 04/27 | 0x007FF6797B198048B1327A475A34FBF8020000002F759FD... |
| 11 | 5204230080000017 | 10 | no | MASTERCARD | 04/27 | 0x007FF6797B198048B1327A475A34FBF802000000C0FE9F... |
| 12 | 5204740009000014 | 11 | yes | VISA | 05/25 | 0x007FF6797B198048B1327A475A34FBF802000000D43D52... |
| 13 | 5420923878724339 | 12 | no | VISA | 06/23 | 0x007FF6797B198048B1327A475A34FBF8020000005A73288... |
| 14 | 5455330760000018 | 13 | no | MASTERCARD | 07/22 | 0x007FF6797B198048B1327A475A34FBF80200000071160FC... |
| 15 | 55069004900000436 | 14 | no | APPEX | 02/25 | 0x007FF6797B198048B1327A475A34FBF8020000001FB8770... |

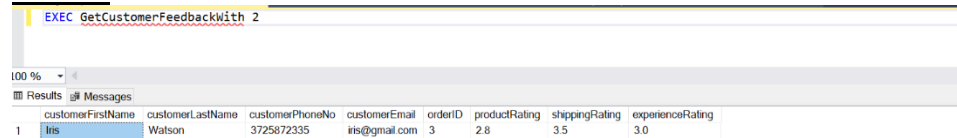
STORED PROCEDURES:

STORED PROCEDURE NO:1

Explanation: Gets CustomerID as parameter and displays CUSTOMER INFORMATION and FEEDBACK ON ORDER ID based on the @customer_ID as the input parameter.

```
CREATE PROCEDURE GetCustomerFeedbackWith @customer_ID INT AS
BEGIN
SELECT customerFirstName, customerLastName, customerPhoneNo,
customerEmail, orderID, productRating, shippingRating,
experienceRating
FROM customer, customerFeedback
WHERE [customerFeedback].[customerID] = @customer_ID
AND [customer].[customerID]= @customer_ID;
END
```

Result:



EXEC GetCustomerFeedbackWith 2

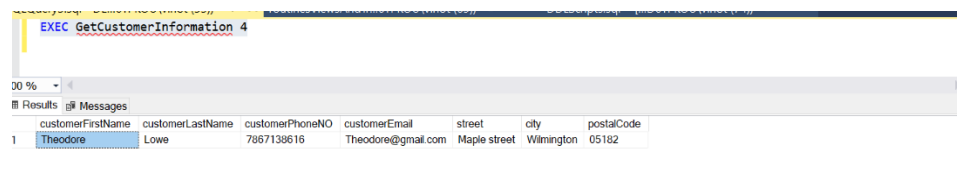
| | customerFirstName | customerLastName | customerPhoneNo | customerEmail | orderID | productRating | shippingRating | experienceRating |
|---|-------------------|------------------|-----------------|----------------|---------|---------------|----------------|------------------|
| 1 | Iris | Watson | 3725872335 | iris@gmail.com | 3 | 2.8 | 3.5 | 3.0 |

STORED PROCEDURE NO:2

Explanation: Gets CustomerID as parameter and displays CUSTOMER INFORMATION and ADDRESS BASED ON THE @customer_ID input parameter

```
CREATE PROCEDURE GetCustomerInformation @customer_ID INT AS
BEGIN
Select customerFirstName, customerLastName, customerPhoneNO,
customerEmail, street, city, postalCode
FROM Customer, customerAddress
WHERE [Customer].[customerID] = @customer_ID and
[customerAddress].[customerID] = @customer_ID;
END
```

Result:



EXEC GetCustomerInformation 4

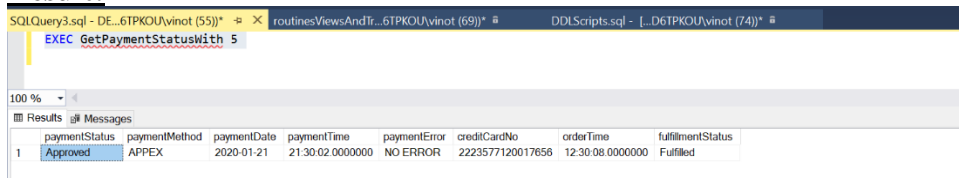
| | customerFirstName | customerLastName | customerPhoneNO | customerEmail | street | city | postalCode |
|---|-------------------|------------------|-----------------|--------------------|--------------|------------|------------|
| 1 | Theodore | Lowe | 7867138616 | Theodore@gmail.com | Maple street | Wilmington | 05182 |

STORED PROCEDURE NO:3

Explanation: GETS orderID as parameter and displays PAYMENT STATUS INFORMATION BASED ON THE @order_ID input parameter.

```
CREATE PROCEDURE GetPaymentStatusWith @order_ID INT AS
BEGIN
SELECT paymentStatus, paymentMethod, paymentDate, paymentTime,
paymentError, creditCardNo, orderTime, fulfillmentStatus
FROM orderDetails, payment, [order]
WHERE [orderDetails].[orderId] = @order_ID and [payment].[orderId] =
@order_ID and [order].orderId = @order_ID;
END
```

Result:



| | paymentStatus | paymentMethod | paymentDate | paymentTime | paymentError | creditCardNo | orderTime | fulfillmentStatus |
|---|---------------|---------------|-------------|------------------|--------------|------------------|------------------|-------------------|
| 1 | Approved | APPEX | 2020-01-21 | 21:30:02.0000000 | NO ERROR | 2223577120017656 | 12:30:08.0000000 | Fulfilled |

STORED PROCEDURE NO:4

Explanation: Gets productID and new productPrice as parameters and UPDATES PRODUCT PRICE.

```
CREATE PROCEDURE updateProductPrice @product_ID INT, @product_Price
VARCHAR(10) AS
BEGIN
DECLARE @currProductPrice VARCHAR(10);
SET @currProductPrice = (SELECT productPrice from product where
productID = @product_ID);
Update product SET productPrice = @product_Price where productID =
@product_ID;
SELECT productName, productPrice, productDescription, unitsInStock,
unitsInOrder FROM product,
productStock WHERE [productStock].[productID] = @product_ID and
[product].[productID] = @product_ID;
END
```

RESULT:

SQLQuery3.sql - DE_6TPKOU\vinot (55)* - X routinesViewsAndTr...6TPKOU\vinot (69)* - DDLScripts.sql - [...D6TPKOU\vinot (74)]* -

EXEC updateProductPrice 3,500

100 %

Results Messages

| | productName | productPrice | productDescription | unitsInStock | unitsInOrder |
|---|-----------------|--------------|---|--------------|--------------|
| 1 | Roadster Shirts | 500 | 88% polyester, 12% spandex, machine wash. | 20 | 6 |

STORED PROCEDURE NO:5

Explanation:

Gets Experience Rating as parameter and displays the CustomerID and the OrderID based on that Experience Rating.

```
CREATE PROCEDURE GetCustomerIDandOrderIDWithExpirenceRating
@Exp_Rating decimal(2,1) AS
BEGIN
SELECT customerID, orderID, ExperienceRating FROM customerFeedback
WHERE [customerFeedback].[ExperienceRating] = @Exp_Rating;
END
```

Result:

EXEC GetCustomerIDandOrderIDWithExpirenceRating 5.0

100 %

Results Messages

| | customerID | orderID | ExperienceRating |
|---|------------|---------|------------------|
| 1 | 3 | 4 | 5.0 |
| 2 | 6 | 7 | 5.0 |
| 3 | 7 | 8 | 5.0 |
| 4 | 10 | 11 | 5.0 |
| 5 | 12 | 13 | 5.0 |

TRIGGERS:

Explanation:

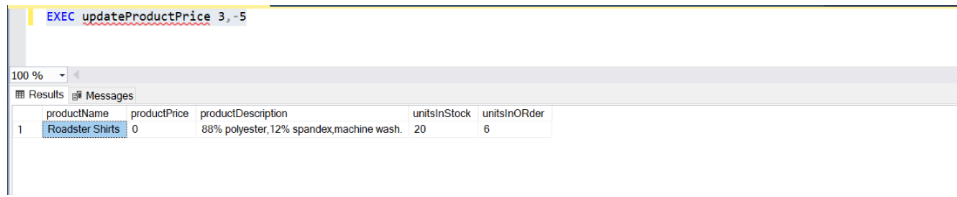
This trigger is called on update of the product price. Check if the product price is not less than 0 and not greater that specified limit.

```
CREATE TRIGGER CheckProductPriceChanges
ON product
AFTER UPDATE
AS
    DECLARE @productPrice INT
    SET @productPrice=(select productPrice from inserted)
    IF( @productPrice < 0)
        BEGIN
            UPDATE product SET productPrice = 0
        END
    IF(@productPrice > 10000)
        BEGIN
            UPDATE product SET productPrice=10000
        END
```

END

Result:


a. When the product price is given below 0, for example, say -5, the price gets updated as 0. This is because of the trigger “CheckProductPriceChanges” which checks the update on the price change of the product.



The screenshot shows the SQL Server Enterprise Manager interface. At the top, the command window displays the executed statement: `EXEC updateProductPrice 3,-5`. Below the command window, the 'Results' pane shows a table with the following data:

| | productName | productPrice | productDescription | unitsInStock | unitsInOrder |
|---|-----------------|--------------|---|--------------|--------------|
| 1 | Roadster Shirts | 0 | 88% polyester, 12% spandex, machine wash. | 20 | 6 |

b. When the product price is given above 10,000, for example, say 12,000, the price gets updated as 10,000. This is because of the trigger “CheckProductPriceChanges” which checks the update on the price change of the product.



The screenshot shows the SQL Server Enterprise Manager interface. At the top, the command window displays the executed statement: `EXEC updateProductPrice 3,12000`. Below the command window, the 'Results' pane shows a table with the following data:

| | productName | productPrice | productDescription | unitsInStock | unitsInOrder |
|---|-----------------|--------------|---|--------------|--------------|
| 1 | Roadster Shirts | 10000 | 88% polyester, 12% spandex, machine wash. | 20 | 6 |

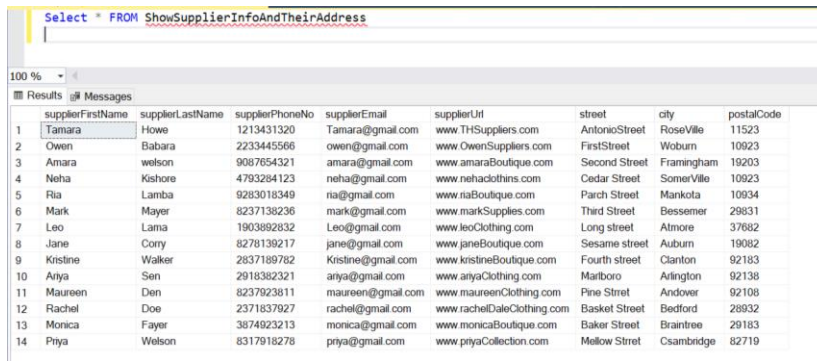
VIEWS:

VIEW 1:

Explanation: This view displays all supplier information with their address information

```
CREATE VIEW ShowSupplierInfoAndTheirAddress AS
SELECT supplierFirstName, supplierLastName, supplierPhoneNo,
supplierEmail, supplierUrl, street, city, postalCode
FROM supplier, supplierAddress
WHERE [supplier].[supplierID] = [supplierAddress].[supplierID];
```

Result:



The screenshot shows a SQL query window with the query: `Select * FROM ShowSupplierInfoAndTheirAddress`. Below the query, the results are displayed in a table with 14 rows and 8 columns. The columns are: supplierFirstName, supplierLastName, supplierPhoneNo, supplierEmail, supplierUrl, street, city, and postalCode. The data is as follows:

| | supplierFirstName | supplierLastName | supplierPhoneNo | supplierEmail | supplierUrl | street | city | postalCode |
|----|-------------------|------------------|-----------------|--------------------|----------------------------|---------------|-------------|------------|
| 1 | Tamara | Howe | 1213431320 | Tamara@gmail.com | www.THSuppliers.com | AntonioStreet | RoseVile | 11523 |
| 2 | Owen | Babara | 2233445566 | owen@gmail.com | www.OwenSuppliers.com | FirstStreet | Woburn | 10923 |
| 3 | Amara | welson | 9067654321 | amara@gmail.com | www.amaraBoutique.com | Second Street | Frammingham | 19203 |
| 4 | Neha | Kishore | 4793284123 | neha@gmail.com | www.nehadotlins.com | Cedar Street | SomerVile | 10923 |
| 5 | Ria | Lamba | 9263018349 | ria@gmail.com | www.riaBoutique.com | Parch Street | Mankota | 10934 |
| 6 | Mark | Mayer | 8237138236 | mark@gmail.com | www.markSupplies.com | Third Street | Bessemer | 29831 |
| 7 | Leo | Lama | 1903892832 | Leo@gmail.com | www.leoClothing.com | Long street | Almore | 37862 |
| 8 | Jane | Corry | 8278139217 | jane@gmail.com | www.janeBoutique.com | Sesame street | Auburn | 19082 |
| 9 | Kristine | Walker | 2837189782 | Kristine@gmail.com | www.kristineBoutique.com | Fourth street | Clanton | 92183 |
| 10 | Ariya | Sen | 2918382321 | ariya@gmail.com | www.ariyaClothing.com | Marlboro | Arlington | 92138 |
| 11 | Maureen | Den | 8237923811 | maureen@gmail.com | www.maureenClothing.com | Pine Strlet | Andover | 92108 |
| 12 | Rachel | Doe | 2371837927 | rachel@gmail.com | www.rachelDaleClothing.com | Basket Street | Bedford | 28932 |
| 13 | Monica | Fayer | 3874923213 | monica@gmail.com | www.monicaBoutique.com | Baker Street | Braintree | 29183 |
| 14 | Priya | Welson | 8317918278 | priya@gmail.com | www.priyaCollection.com | Mellow Strlet | Csambdige | 82719 |

VIEW 2:

Explanation: This view displays all product information

```
CREATE VIEW ViewProductInfoWithUnits AS
SELECT productName, categoryID, productPrice, productSize, discount,
productWeight, productPicture, productDescription, unitsInStock,
unitsInOrder
FROM product, productStock
WHERE [product].[productID] = [productStock].[productID];
```

Result:

Select * FROM ShowSupplierInfoAndTheirAddress

| productID | productName | categoryID | productPrice | productSize | discount | productWeight | productPicture | productDescription | unitsInStock | unitsInOrder |
|-----------|---------------------|------------|--------------|-------------|----------|---------------|---|--|--------------|--------------|
| 1 | Mustard T-Shirt | 1 | 0 | Small | 10% | 120gms | /Users/ntz/documents/Database/Homeworks/Project/... | 88% Polyester, 12% Spandex, Machine Wash | 10 | 4 |
| 2 | Mustard T-Shirts | 1 | 0 | Large | 10% | 130gms | /Users/ntz/documents/Database/Homeworks/Project/... | 88% polyester, 12% spandex,machine wash | 10 | 4 |
| 3 | Roadster Shirts | 2 | 0 | Medium | 10% | 130gms | /Users/ntz/documents/Database/Homeworks/Project/... | 88% polyester, 12% spandex,machine wash | 20 | 6 |
| 4 | Forever Sweaters | 3 | 0 | large | 10% | 120gms | /Users/ntz/documents/Database/Homeworks/Project/... | 88% polyester, 12% wool, Hand wash. | 40 | 15 |
| 5 | Forever Sweatshirts | 4 | 0 | Medium | 10% | 130gms | /Users/ntz/documents/Database/Homeworks/Project/... | 90% cotton, machine wash. | 10 | 2 |
| 6 | Forever Sweatshirts | 4 | 0 | Medium | 10% | 130gms | /Users/ntz/documents/Database/Homeworks/Project/... | 90% cotton, machine wash. | 30 | 20 |
| 7 | Forever Sweatshirts | 4 | 0 | large | 10% | 130gms | /Users/ntz/documents/Database/Homeworks/Project/... | 90% cotton, machine wash. | 35 | 25 |
| 8 | Polo Jackets | 5 | 0 | medium | 10% | 150gms | /Users/ntz/documents/Database/Homeworks/Project/... | 90% Denim, 10% Cotton machine wash. | 30 | 5 |
| 9 | Casual Trousers | 6 | 0 | medium | 20% | 130gms | /Users/ntz/documents/Database/Homeworks/Project/... | 90% cotton, machine wash. | 20 | 14 |
| 10 | Jaylane Shorts | 7 | 0 | medium | 20% | 130gms | /Users/ntz/documents/Database/Homeworks/Project/... | 90% cotton, machine wash. | 25 | 14 |
| 11 | Joggers | 8 | 0 | medium | 20% | 130gms | /Users/ntz/documents/Database/Homeworks/Project/... | 90% cotton, machine wash. | 30 | 24 |
| 12 | Dresses | 9 | 0 | medium | 20% | 130gms | /Users/ntz/documents/Database/Homeworks/Project/... | 90% cotton, machine wash. | 35 | 4 |
| 13 | Jumpsuits | 10 | 0 | medium | 20% | 130gms | /Users/ntz/documents/Database/Homeworks/Project/... | 90% cotton, machine wash. | 40 | 14 |
| 14 | Skirts | 11 | 0 | medium | 20% | 130gms | /Users/ntz/documents/Database/Homeworks/Project/... | 90% cotton, machine wash. | 20 | 13 |
| 15 | Shrugs | 12 | 0 | medium | 20% | 130gms | /Users/ntz/documents/Database/Homeworks/Project/... | 90% cotton, machine wash. | 30 | 10 |

VIEW 3:

Explanation: this view displays all customer information with their credit card information

```
CREATE VIEW CustomersAndTheirCreditCards AS
Select customerFirstName, customerLastName, customerPhoneNo,
customerEmail, creditCardNo, creditCardType, setAsPrimary, cardExpiry
FROM Customer, creditCard
WHERE [Customer].[customerID] = [creditCard].[customerID];
```

Result:

Execute

SQLQuery4.sql - DE...6TPKOU\vinot (55)* routinesViewsAndTr...6TPKOU\vinot (60)

Select * from CustomersAndTheirCreditCards

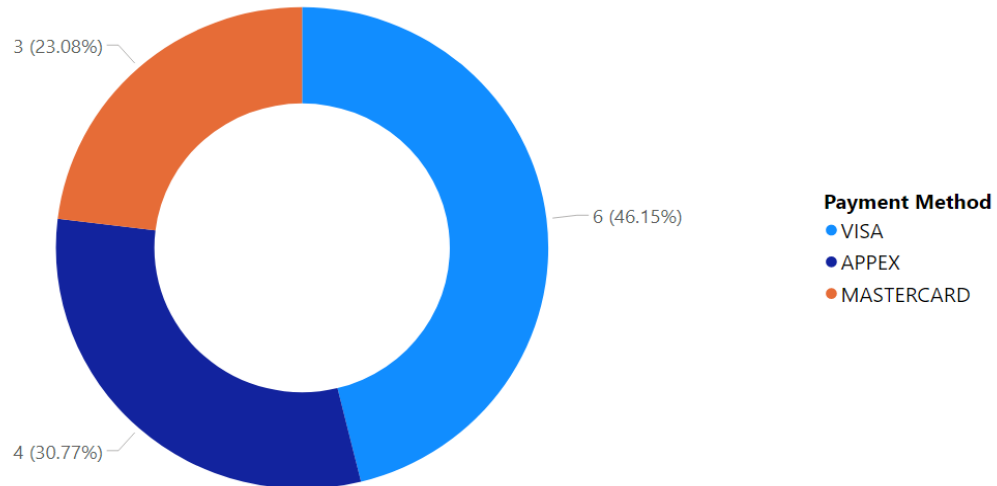
| customerID | customerFirstName | customerLastName | customerPhoneNo | customerEmail | creditCardNo | creditCardType | setAsPrimary | cardExpiry |
|------------|-------------------|------------------|-----------------|--------------------|------------------|----------------|--------------|------------|
| 1 | Cecelia | Chapman | 8493221093 | cecelia@gmail.com | 123456789 | VISA | yes | 11/21 |
| 2 | Iris | Watson | 3725872335 | iris@gmail.com | 2222405343248877 | VISA | yes | 01/23 |
| 3 | Celeste | Slater | 7867138616 | celeste@gmail.com | 2222990905257051 | VISA | yes | 01/23 |
| 4 | Theodore | Lowe | 7867138616 | Theodore@gmail.com | 2223007648726984 | MASTERCARD | no | 03/25 |
| 5 | Kyla | Olsen | 6543935734 | kyla@gmail.com | 2223577120017656 | APPEX | yes | 09/25 |
| 6 | Cecelia | Chapman | 8493221093 | cecelia@gmail.com | 378282246310005 | MASTERCARD | no | 11/25 |
| 7 | Hiroko | Potter | 3142446306 | hiroko@gmail.com | 5105105105105100 | VISA | yes | 09/25 |
| 8 | Nyssa | Vazquez | 9472785929 | nyssa@gmail.com | 5111010030175156 | MASTERCARD | no | 08/23 |
| 9 | Lawrence | Moreno | 6845791879 | lawrence@gmail.com | 5185540810000019 | APPEX | yes | 02/24 |
| 10 | Ian | Somerhalder | 3142444006 | ian@gmail.com | 5200828282828210 | APPEX | no | 04/27 |
| 11 | Aaron | Hawkins | 6606634518 | aaron@gmail.com | 5204230080000017 | MASTERCARD | no | 04/27 |
| 12 | Hedy | Greene | 6082652215 | hedy@gmail.com | 5204740009900014 | VISA | yes | 05/25 |
| 13 | Melvin | Porter | 9591198364 | melvin@gmail.com | 5420923878724339 | VISA | no | 06/23 |
| 14 | Keefe | Sellers | 4683532641 | keefe@gmail.com | 5455330760000018 | MASTERCARD | no | 07/22 |
| 15 | Joan | Romero | 2486754007 | joan@gmail.com | 5506900490000436 | APPEX | no | 02/25 |

POWER BI VIEWS:

The server and the database were imported in the PowerBI which aided in creating several vies of visualization to present the database.

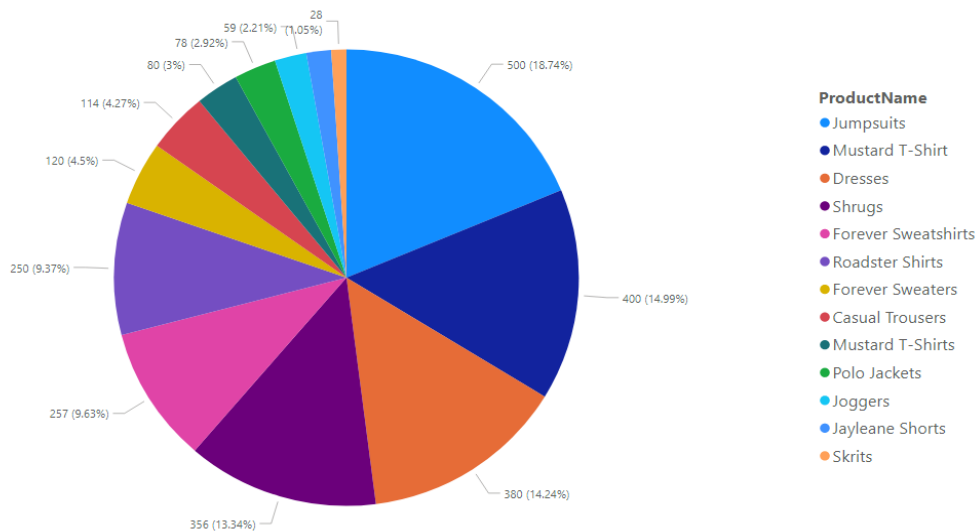
Visualization 1: Displaying the percentage of the payment methods (VISA, APPEX and MASTERCARD). This shows that most of the payments are made by VISA.

Grouping by Payment Method

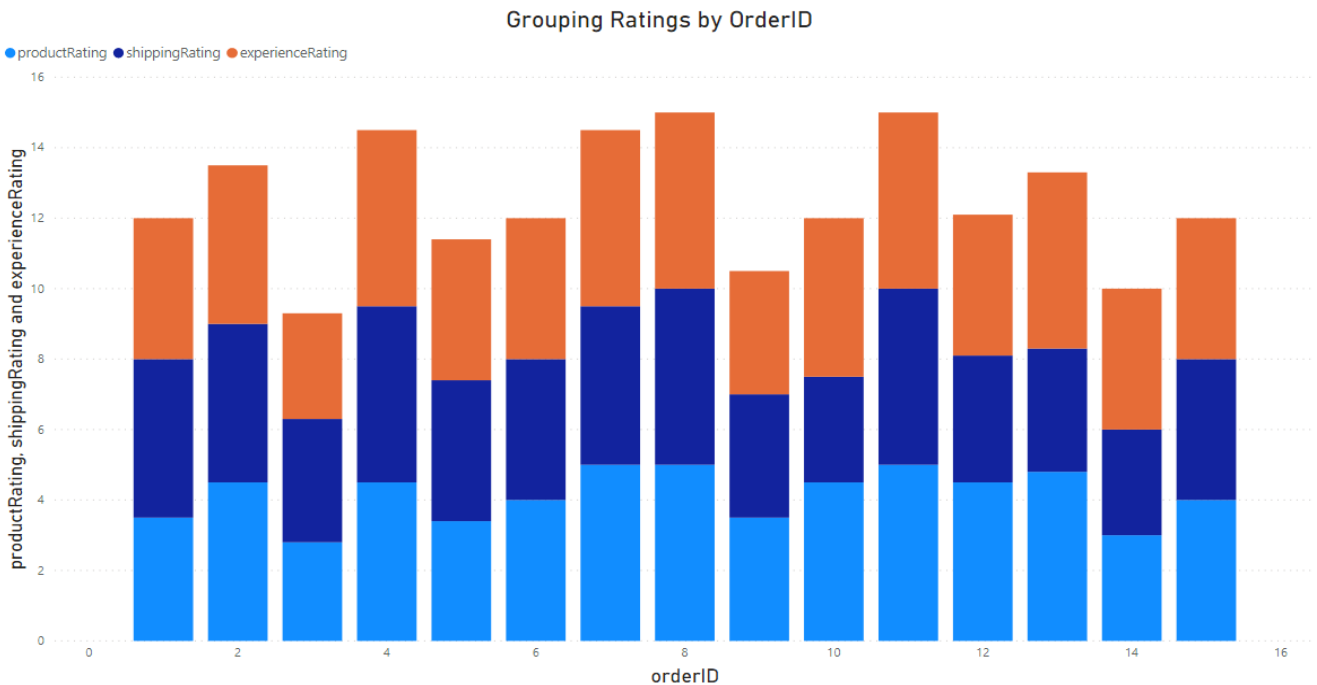


Visualization 2: Displaying the Pie chart of the product name based on the price of the product.

Grouping Product Price by Product Name



Visualization 3: This bar chart helps us to know the different ratings (according to product, shipping and experience) given by the customer , which is grouped by the orderID



Visualization 4: This bar chart helps us to know the count of the products grouped by the product size. We see that the medium size has the highest number (11) of products as per the given data.

