Information Systems and Data Modeling – IT1090

Assignment

Title: Online Fashion Store	
Batch Number: 24/Y1/S2/MTR-13	Group Number: 24/Y1/S2/MTR-13

Declaration:

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Contents

1.Introduction

Our online retail emporium offers a unique blend of technology and commerce, transforming the traditional shopping experience. With an extensive selection of products, including fashion, we partner with reputable brands and suppliers to provide high-quality merchandise. Our commitment to quality assurance is evident in every aspect of the shopping experience, from product selection to delivery.

Our team of professionals is dedicated to customer satisfaction, offering personalized assistance and prompt resolution of concerns. We strive to create a seamless shopping journey for every visitor. Our intuitive interface, optimized for various devices and platforms, allows for easy exploration and navigation.

Our commitment to innovation and adaptation is unwavering, as we continuously iterate and refine our offerings to stay ahead of industry trends. As a pioneer in digital retail, we are poised to shape the future of online shopping, pioneering innovative approaches that redefine convenience, accessibility, and consumer empowerment.

Our online shopping store serves as a testament to the transformative potential of technology-driven commerce, offering a superior amalgamation of choice, quality, and customer-centricity. We invite you to a realm where consumer satisfaction transcends boundaries, and the possibilities of digital commerce are boundless.

2.Requirement Analysis

The Online Fashion Store requirement analysis ensures efficiency and convenience for the customers.

The fashion items should be easily browsed by customers and easily purchased through a user-friendly interface. The system should provide a secure payment gateway, ensuring that transactions occur security.

Access control should be implemented, it will help maintain security throughout the system. Even when the user is allowed to view products, the system can restrict access to certain areas as required.

There should be flexibility in the navigation of the website so that the users can move from pages such as the home page to the product listings and vice versa. This will ensure that the navigation is smooth and enjoyable for the customers. Confidential information of the customers should be maintained by the system, and it should be maintained by the system, and it should fetch data only when required for the protection of the sensitive data. The system should be user-friendly, so customers can easily utilize it.

The service must be accessible for the registered customers all over country, and for the unregistered customers, access to the website must be open for browsing and registration. The registration members must have the option to verify their status of registration using their credentials.

After registration, the customers should have the freedom to select their choice of fashion items and purchase securely. It includes booking items and purchasing securely. It includes booking items and selecting the delivery dates. The system must facilitate these operations and the service should be allowed only after the payment is approved.

The Online Fashion Store Requirement Analysis aims to give a comprehensive solution for efficient and secure fashion shopping experiences.

2.1 Overview

In antecedence, multitudinous corporations were reliant on system based on files for the purpose of data reservation, which manifested deficiencies in the stewardship of datasets of considerable magnitudes. Subsequently, the inception of database system was recognized as a rectification to these limitations. The quintessential intention of this virtual boutique entailed the amplification of the shopping trajectory of its clientele. To consummate this objective, the establishment operationalizes an encompassing database containing diverse classifications of data inclusive of product inventories, profiles of consumers, records administratively oriented, and database correlating thereto. By exploiting this repository, the emporium enhances user experience through the utilization of pertinent data. Additionally, stakeholders encompassing administrators and members of the staff accrue benefits from the prerogative of enlightened decision-making procured through the accessibility to this centralized database.

2.2 Functional Requirements

1. There exists the capability for users to perform navigational operation within the confines of the product catalog.

2. It is within the realm of possibility for user to engage in the registration of an account concomitant within the system.

3. Functionality pertaining to the management of accounts is present and accessible for user utilization.

4. The completion of acquisition concerning products can be executed by users in a manner that lacks interruptions.

5. The modalities for remuneration extend to encompass the utilization of credit card, debit card and mechanism provided by pay pal.

6. The protocol for transactions empowers the user with the faculty to both initiate and cease orders according to necessity.

7. The shopping cart mechanism permits alterations by users in the quantitative measures of items besides enabling the addition or excision of products.

8. Facilities are in place for users to establish communicative likes with customer support in instances deemed necessary.

9. Users are endowed with the ability to submit inquiries regarding the availability of concession on prices.

10. Those holding administrative jurisdiction possess the ability to implement reduction in pricing on products within the operational boundaries of the system.

11. The oversight of user account management resides within the capabilities of administrators.

12. The administrative echelon has the authority to effectuate both the addition of products to and the removal of products from the inventory manifest on the website.

13. Information that has been articulated in considerable detail alongside profound descriptions for items listed is accessible to users.

14. After placing an order successfully, users receive emails or notifications as confirmation, which guarantees openness and confidence.

15. In order to promote community involvement and assist other users in making decisions about what to buy, users can leave comments and reviews on the things they have purchased.

16. To improve the shopping experience, the system offers customized product recommendations based on customer preferences, browsing history, and purchase behavior.

17. To meet a range of requirements and tastes, users can select from a number of shipping alternatives, including standard, expedited, and same-day delivery.

18. The website is made to be as functional and easy to access as possible on a range of devices, including smartphones, tablets, and PCs.

19. For effective order fulfillment, shipment tracking, and delivery management, the system integrates with third-party logistics providers.

20. To maximize sales chances, administrators can dynamically modify product prices and manage discounts based on variables like demand, inventory levels, and seasonal promotions.

2.3 Non-functional Requirements

1. Performance
    - Our online fashion store platform is efficiently managed with our fast system, ensuring quick page loading times and minimal latency.

    - The system can handle many concurrent users without experiencing performance degradation or slowing down.

2. Usability
    - Our system offers a user friendly, elegant, and flexible interface that enhances the overall user experience.

    - The interface is user-friendly, allowing users to easily browse purchase, and manage their accounts.

3. Security
    - Our system is designed with robust security measures to safeguard client information and maintain confidentiality.

    - The use of strong encryption functions will ensure the safety of data transit and storage, maintaining confidentiality and integrity.

4. Reliability
    - Our system expedites user requests, ensuring that appointments and services are promptly provided as per their specific needs.

    - Our system is highly reliable and robust, minimizing the risk of unavailability and unforeseen circumstances, ensuring uninterrupted service provision.

5. Performance
    - Regular system updates are conducted to mitigate performance issues and bottlenecks.
    - The admin can modify, add, remove, and update system components to improve performance and functionality.

6. Availability
    - The online fashion store system is seven days a week, from 8:00 a.m. to 10:00 p.m., available to users to ensure the availability of services at peak usage times.
    - Measures will be taken for ensuring a high level of availability, such as redundant servers, load balancing, and recovery plans against disasters, to minimize downtime.

3. Data Requirements

- **Login**
  - Login ID (Loging_ID)
  - Password (Password)
  - Username (Username)
  - Account Status (Account_Status)
- **Customer**
  - Customer ID (Customer_ID)
  - Customer Phone Number (Phone)
  - Customer Age (Age)
  - Customer Email (Email)
  - Customer First Name (First_Name)
  - Customer Last Name (Last_Name)
- **Item**
  - Item ID (Item_ID)
  - Discount Item (Discount)
  - Item Name (Name)
  - Item Unit Price (Unit Price)
- **Cart**
  - Cart ID (Cart_ID)
- **Cart Item**
  - Cart Item ID (CartItem_ID)
  - Number of Cart Items (Number_of_item)
  - Cart Item Quantity (Quantity)
  - Total Price (Total_Price)

- **Order**
    - Order ID (Order_ID)
    - Number of Order (No_Oders)
    - Order date (Order_Date)
    - Order Name (Order_Name)
- **Payment**
    - Payment ID (Payment_ID)
    - Card (Card)
    - Paypal (Paypal)
    - Debit (Debit)
- **Receipt**
    - Receipt ID (Receipt_ID)
    - Receipt Type (R_Type)
    - Total Payment (Total_Payment)
    - Discount (Discount)
- **Deliver**
    - Deliver ID (Deliver_ID)
    - Deliver Name (Name)
    - Deliver Age (Age)
    - Deliver Address (Address)
    - Deliver Phone Number (Phone)
    - Delivery Date (Delivery_date)
- **Delivery Company**
    - Delivery Company ID (Delivery_ID)
    - Delivery Company Name (Name)
    - Delivery Company Phone Number (Phone_no)

- **Supplier**

  - Supplier ID (Supplier_ID)
  - Supplier Name (Name)
  - Supplier Address (Address)
  - Supplier Phone Number (Phone)
  - Supplier First Name (F_name)
  - Supplier Last Name(L_name)

- **Supplier Company**

  - Supplier Company ID (Supplier_Company_ID)
  - Supplier Company Name (Name)
  - Supplier Company Phone Number (Phone_no)
  - Supplier Company City (City)
  - Supplier Company Twon (Twon)

- **Admin**

  - Admin NIC Number (NIC)
  - Admin First Name (First_Name)
  - Admin Last Name (Last_Name)
  - Admin Address (Address)

- **Account**

  - Account ID(Account_ID)
  - Account Username (Username)
  - Account Password (Password)
  - Account Type (Type)

4.” NOURA” Online Fashion Store

Most people in current society use online shopping gateways to purchase different kinds of items that they need in day today’s life. “NOURA” online fashion platform providing them many different features such as convenience time saving features, large variety of products to purchase and secure payment methods are just few of them.

Customer is logging to the system by providing their customer Id, name (first name, last name), email and age. The customer Id is unique for the customer and age is dependent on the customer’s date of birth. The customer has one or more contact numbers. Customer can only login once, but login can hold many customers when login is completed.

Login has unique login Id, username, password, and account status. After the login customer can view many items. Items have once login. Items have Item Id, name and unit price and discount. Item belongs to many customers and customers belongs to many items.

When a customer finds an items, they wish to purchase, they add it to their shopping cart. Each shopping cart has a unique cart Id. One item can add one cart and one cart can add to many cart items.

One cart is made of many cart items and cart items have one cart. Cart items have unique cart Id, number of items, quantity, and total price. The cart keeps track of the selected and calculates the total price.

Order has unique order Id, order name, order date and number of orders. One order adds to many cart items and cart items have one order. Once the payment is successful an order is orated. At the checkout stage, the customer chooses a payment type. It has a card and PayPal. It provides necessary details for processing the payment like amount. Each payment has a unique payment Id. Once order has one payment and once payment verifies many orders.

After the payment is issue the receipt. Then the receipt has a unique receipt Id, total payment, discount, and payment types. Once payment is issued one receipt. One receipt has one payment.

Once the receipt is issued, the message will be sent to the deliverer. The deliverer has unique Id, delivery date, address, name, many phone numbers and age. The deliverer's age is dependent on his Date of Birth. The deliverer has many receipts and receipt has one deliverer.

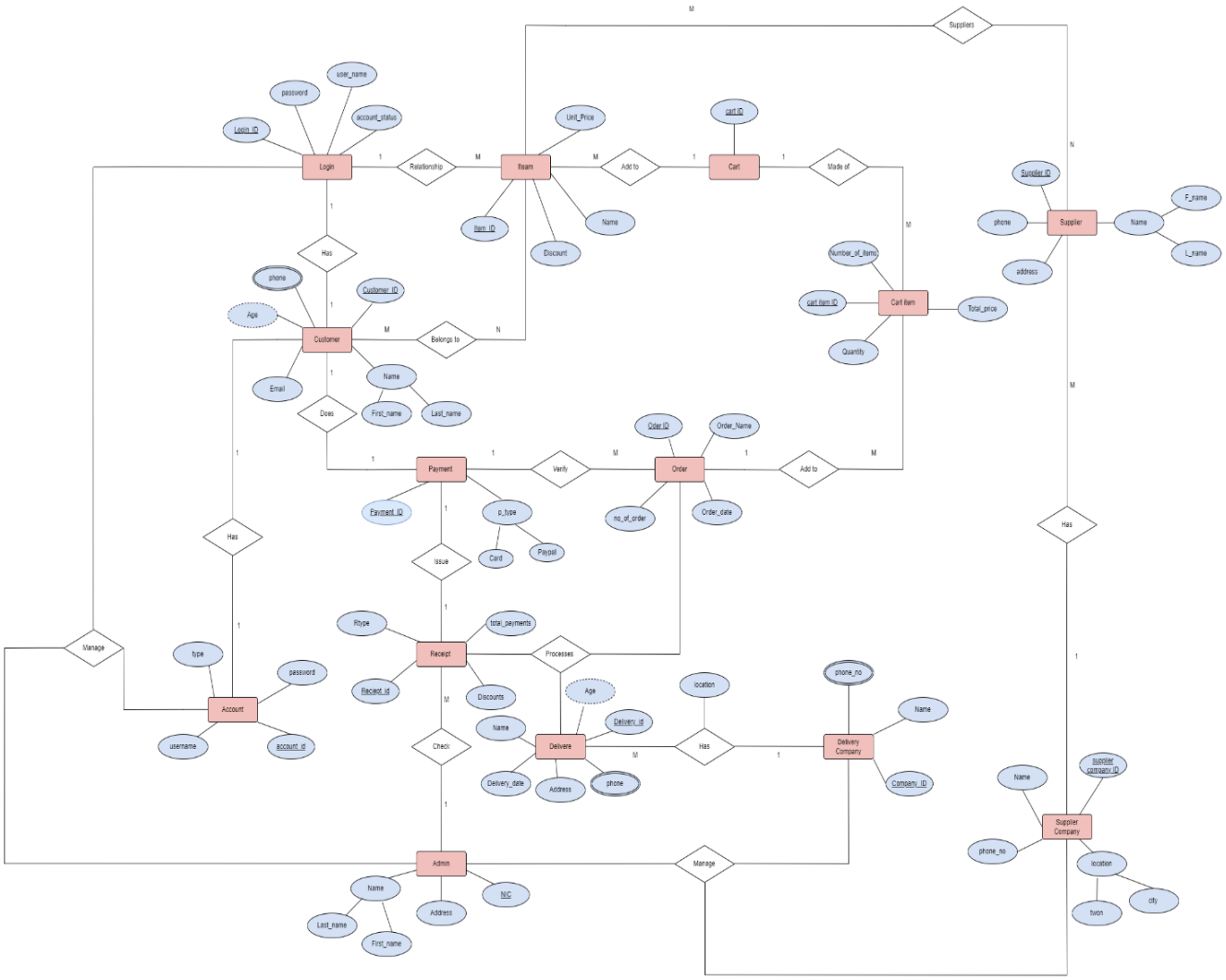
"NOURA" Company collaborates with various delivery companies. Each delivery company has a company Id, name, and many phone numbers. Deliverer has many delivery companies and Delivery Company has many deliverers. When delivery processing, delivery company and deliverer in same location.

Admins manage Delivery Company, Supplier Company, account, and login. Admin has unique NIC Number, address, last name and first name. Once admin manages many Delivery companies, Supplier companies, Accounts and Logins. Account, Login, Delivery Company and Supplier Company have once admin.

A customer has one Account and Account has one customer. Then the customer has unique account Id, account type, username, and password.

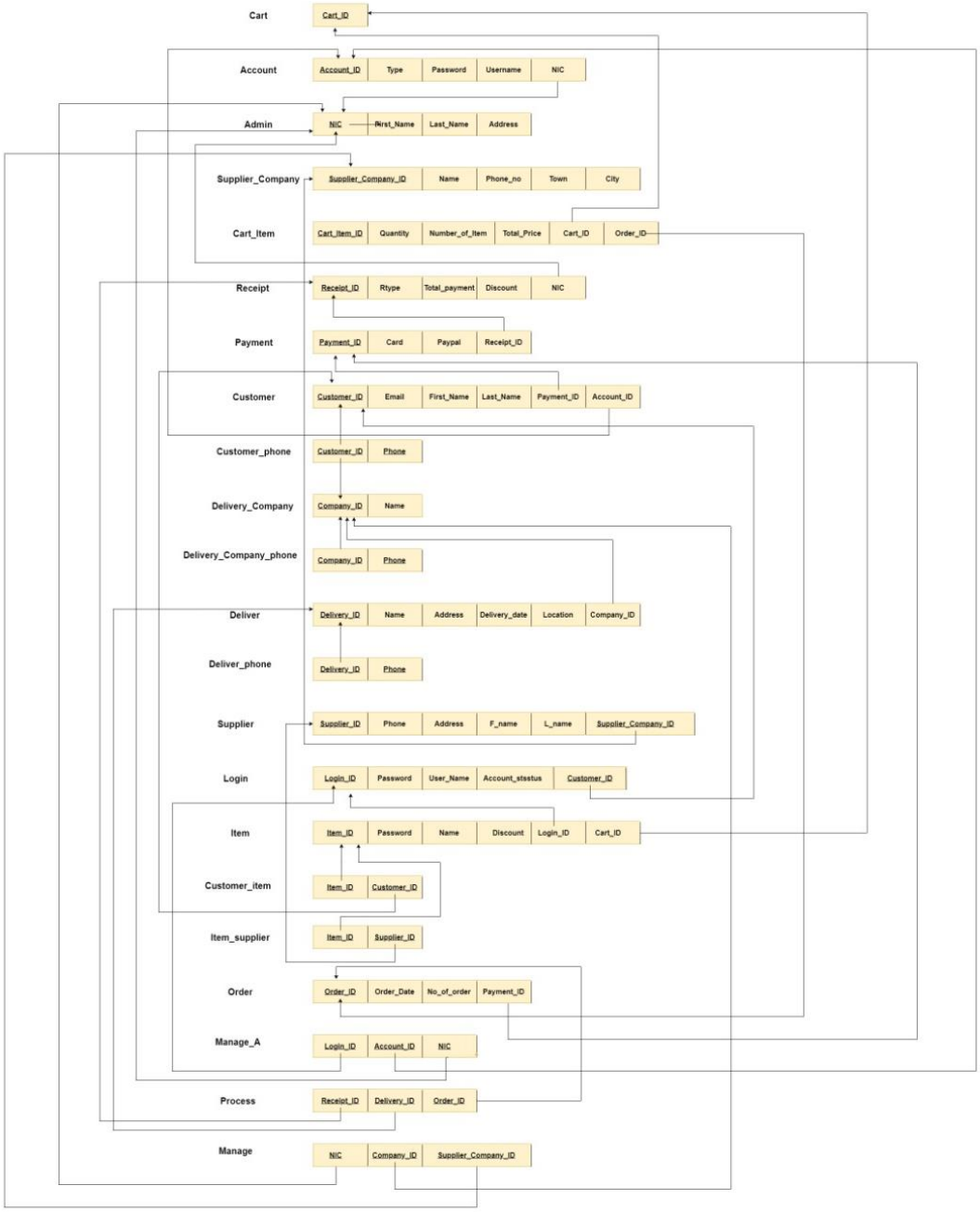
Item is supplied by many suppliers and suppliers supply many items. Supplier has unique supplier Id, phone number, address, last name and first name. Then supplier has Supplier Company. Once Supplier Company has many suppliers. Supplier Company has unique supplier Id, phone number, supplier name and location. The location has a town and city.

5.ER Diagram



Link –https://drive.google.com/file/d/1-lgNsfBUUDVwuFgWH2RcFhzs0mMQyhmZ/view?usp=sharing

6.Relational Schema



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https://drive.google.com/file/d/19G41t_cCGLCnt4hmdSM3tLJ7RbdITtbo/view?usp=drive_link

7.SQL Commands

CREATE TABLE

```
 /*Online Fashion Store Database*/

 /*Cart*/

CREATE TABLE Cart (
           Cart_ID int,        /*PRIMARY KEY*/
           constraint Cart_PK PRIMARY KEY (Cart_ID),
);

 /*Cart*/

 insert into Cart values ('1000');
 insert into Cart values ('1001');
 insert into Cart values ('1002');
 insert into Cart values ('1003');
 insert into Cart values ('1004');

SELECT * FROM Cart;

/*Account*/

CREATE TABLE Account(
      account_ID int,             /*PRIMARY KEY*/
      a_type char(6),
      a_password char(10),
      username char(20),
      constraint Account_PK PRIMARY KEY (account_ID),
      constraint Account_check CHECK (account_ID LIKE ('[0-9] [0-9] [0-9] [0-9] [0-9] [0-9] [0-9] ')),

      );
```

```
      );

 insert into Account values ('0000001','VIP','@#$123','Nimal');
 insert into Account values ('0000002','ADMIN','HTU7849','Kamal');
 insert into Account values ('0000003','VIP','H&%849','Kasun');
 insert into Account values ('0000004','ADMIN','#&89FN','Nadun');
 insert into Account values ('0000005','VIP','H&@MKd123','Kamal');

 SELECT * FROM Account;


/*Admin*/

CREATE TABLE Admin(
      NIC char(10), /*PRIMARY KEY*/
      address char (50),
      firstName char(10),
      lastName char(10),
      constraint Admin_PK PRIMARY KEY (NIC),
      );
 insert into Admin values ('20026201V','13/A Colombo 7' ,'Amila','Shamika');
 insert into Admin values ('20016201V','Boralasgamuwa colombo','Amila','Shamika');
 insert into Admin values ('20026711V','14A Marata Paburana','Kumudu','perera');
 insert into Admin values ('19656631V','Palatuwa Matara','Kasuni','Chamalka');
 insert into Admin values ('92345011V','50/A Colombo 4' ,'Pramila','Gunasekara');

 SELECT * FROM Admin;
```

```sql
/*Supplier Company*/

CREATE TABLE Supplier_Company(
      supplierCompanyId char(6),/*PRIMARY KEY*/
      name char(20),
      phone_no int,
      town char(10),
      city char(10),
      constraint Supplier_Company_PK PRIMARY KEY (supplierCompanyId),
      constraint supplierCompanyId_CK CHECK (supplierCompanyId LIKE ('[0-9] [0-9] [0-9] [0-9] [0-9] [0-9]  ')),
      );

insert into Supplier_Company values ('100001','ABC','077419795','Matara','Hakmana');
insert into Supplier_Company values ('100011','DEF','071036720','Galle','Ahangama');
insert into Supplier_Company values ('100111','GHI','071499332','Colombo','Kotte');
insert into Supplier_Company values ('101111','JKL','076312463','Kandy','polgolla');
insert into Supplier_Company values ('111111','MOP','041476963','Badulla','Walimada');

SELECT * FROM Supplier_Company ;
```

```sql
/*Receipt*/

CREATE TABLE Receipt(
      Receipt_ID int,/*PRIMARY KEY*/
      Rtype char(6),
      total_Payment float,
      Discount float,
      NIC char(10),/*FOREIGN KEY*/
      constraint Receipt_PK PRIMARY KEY (Receipt_ID),
      constraint Receipt_PK_FK FOREIGN KEY(NIC) REFERENCES Admin(NIC),
      );

insert into Receipt values ('20001','typeA','15000.00','2000.00','20026201V');
insert into Receipt values ('20002','typeB','10000.00','500.00','20026201V');
insert into Receipt values ('20003','typeB','1700.00','100.00','20026201V');
insert into Receipt values ('20004','typeA','1450.00','200.00','20026201V');
insert into Receipt values ('20005','typeA','1850.00','300.00','20026201V');

SELECT * FROM Receipt;
```

```sql
/*Payment*/

CREATE TABLE Payment(
       Payment_ID char(6),/*PRIMARY KEY */
       card char(6),
       payPal char(6),
       Receipt_ID int,/*FOREIGN KEY*/
       constraint Payment_PK PRIMARY KEY (Payment_ID),
       constraint Payment_PK_FK FOREIGN KEY(Receipt_ID) REFERENCES Receipt(Receipt_ID),
       );

insert into Payment values ('30001','Visa','NO','20001');
insert into Payment values ('30002',' ','YES','20002');
insert into Payment values ('30003','Debit','NO','20003');
insert into Payment values ('30004','Visa','NO','20004');
insert into Payment values ('30005','Debit','NO','20005');

SELECT * FROM Payment;
```

```sql
/*Order*/

CREATE TABLE Orders(
      Order_ID char(6),/*PRIMARY KEY*/
      Order_date int,
      no_of_order int,
      order_name char(20),
      Payment_ID char(6),/*FOREIGN KEY*/
      constraint Order_PK PRIMARY KEY ( Order_ID),
      constraint Order_PK_FK FOREIGN KEY (Payment_ID) REFERENCES Payment(Payment_ID),
      );
```

```sql
insert into Orders values ('40001','02052024','05','Order A','30001');
insert into Orders values ('40002','03062024 ','10','Order B','30002');
insert into Orders values ('40003','05072024','02','Order C','30003');
insert into Orders values ('40004','06122024','03','Order D','30004');
insert into Orders values ('40005','07032024','07','Order E','30005');

SELECT * FROM Orders;

/*Cart_Item*/

CREATE TABLE Cart_Item(
        CartItem_ID char(6),/*PRIMARY KEY*/
        Quantity int,
        Number_of_items int,
        Total_price float,
        Order_ID char(6),/*FOREIGN KEY*/
        Cart_ID int,/*FOREIGN KEY*/
        constraint Cart_Item_PK2 PRIMARY KEY (CartItem_ID),
        constraint Cart_Item_PK1_FK FOREIGN KEY(Cart_ID) REFERENCES Cart(Cart_ID),
        constraint Cart_Item_PK2_FK FOREIGN KEY(Order_ID) REFERENCES Orders(Order_ID),
        );

insert into Cart_Item values ('50001','05','05','12000.00','40001','1000');
insert into Cart_Item values ('50002','10 ','10','13000.00','40002','1001');
insert into Cart_Item values ('50003','02','02','600.00','40003','1002');
insert into Cart_Item values ('50004','03','03','800.00','40004','1003');
insert into Cart_Item values ('50005','07','07','10000.00','40005','1004');

SELECT * FROM Cart_Item ;
```


```sql
insert into Orders values ('40001','02052024','05','Order A','30001');
insert into Orders values ('40002','03062024 ','10','Order B','30002');
insert into Orders values ('40003','05072024','02','Order C','30003');
insert into Orders values ('40004','06122024','03','Order D','30004');
insert into Orders values ('40005','07032024','07','Order E','30005');

SELECT * FROM Orders;

/*Cart_Item*/

CREATE TABLE Cart_Item(
        CartItem_ID char(6),/*PRIMARY KEY*/
        Quantity int,
        Number_of_items int,
        Total_price float,
        Order_ID char(6),/*FOREIGN KEY*/
        Cart_ID int,/*FOREIGN KEY*/
        constraint Cart_Item_PK2 PRIMARY KEY (CartItem_ID),
        constraint Cart_Item_PK1_FK FOREIGN KEY(Cart_ID) REFERENCES Cart(Cart_ID),
        constraint Cart_Item_PK2_FK FOREIGN KEY(Order_ID) REFERENCES Orders(Order_ID),
        );

insert into Cart_Item values ('50001','05','05','12000.00','40001','1000');
insert into Cart_Item values ('50002','10 ','10','13000.00','40002','1001');
insert into Cart_Item values ('50003','02','02','600.00','40003','1002');
insert into Cart_Item values ('50004','03','03','800.00','40004','1003');
insert into Cart_Item values ('50005','07','07','10000.00','40005','1004');

SELECT * FROM Cart_Item ;
```

```sql
/*Customer*/

CREATE TABLE Customer (
       Customer_ID char(6),/*PRIMARY KEY*/
       Email varchar(20),
       firstname char(10),
       lastname char(10),
       account_ID int,/*FOREIGN KEY*/
       Payment_ID char(6),/*FOREIGN KEY*/
       constraint Customer_PK PRIMARY KEY (Customer_ID),
       constraint Customer_PK_FK FOREIGN KEY(Payment_ID) REFERENCES Payment(Payment_ID),
       constraint Customer_PK_FK1 FOREIGN KEY(account_ID) REFERENCES Account(account_ID),
       );

       drop table Customer;

insert into Customer values ('60001','thari@gmail.com','Amaa','perera','0000001','30001');
insert into Customer values ('60002','nadee@gmail.com ','Nayomi','fernando','0000002','30002');
insert into Customer values ('60003','sara@gmail.com','Sara','Bimalka','0000003','30003');
insert into Customer values ('60004','kila@gmail.com','kilaa','Sudeepa','0000003','30004');
insert into Customer values ('60005','anju@gmail.com','Anju','Mihiran','0000004','30005');

SELECT * FROM Customer;

 /*Customer_phone*/

CREATE TABLE Customer_phone (
       Customer_ID char(6),/*PRIMARY KEY*//*FOREIGN KEY*/
       phone int,/*PRIMARY KEY*//*FOREIGN KEY*/
       constraint Customer_phone_PK PRIMARY KEY (Customer_ID, phone),
```

```sql
insert into Supplier values ('70001','077419790','Matara','Nayomi','perera','100001');
insert into Supplier values ('70002','041223546 ','Galle','Sara','fernando','100011');
insert into Supplier values ('70003','074631124','Kandy','Amaa','kalpani','100111');
insert into Supplier values ('70004','041222030','Badulla','Sudeepa','Bimalka','101111');
insert into Supplier values ('70005','076394678','Collombo','Mihirangi','Laksini','111111');


SELECT * FROM Supplier ;

/*Delivery Company*/

CREATE TABLE Delivery_Company(
       Company_ID char(6),/*PRIMARY KEY*/
       Name char(20),
       constraint Delivery_Company_PK PRIMARY KEY (Company_ID),
       );

insert into Delivery_Company values ('80001','ABCD');
insert into Delivery_Company values ('80002','EFGH');
insert into Delivery_Company values ('80003','IJKL');
insert into Delivery_Company values ('80004','MNOP');
insert into Delivery_Company values ('80005','QRST');

SELECT * FROM Delivery_Company;
```

```sql
insert into Supplier values ('70001','077419790','Matara','Nayomi','perera','100001');
insert into Supplier values ('70002','041223546 ','Galle','Sara','fernando','100011');
insert into Supplier values ('70003','074631124','Kandy','Amaa','kalpani','100111');
insert into Supplier values ('70004','041222030','Badulla','Sudeepa','Bimalka','101111');
insert into Supplier values ('70005','076394678','Collombo','Mihirangi','Laksini','111111');


SELECT * FROM Supplier ;

/*Delivery Company*/

CREATE TABLE Delivery_Company(
       Company_ID char(6),/*PRIMARY KEY*/
       Name char(20),
       constraint Delivery_Company_PK PRIMARY KEY (Company_ID),
       );

insert into Delivery_Company values ('80001','ABCD');
insert into Delivery_Company values ('80002','EFGH');
insert into Delivery_Company values ('80003','IJKL');
insert into Delivery_Company values ('80004','MNOP');
insert into Delivery_Company values ('80005','QRST');

SELECT * FROM Delivery_Company;
```

```sql
/*Delivery Company Phone*/

CREATE TABLE Delivery_Company_phone(
       Company_ID char(6),/*PRIMARY KEY*//*FOREIGN KEY*/
       phone int,/*PRIMARY KEY*//*FOREIGN KEY*/
       constraint Dcompany_PK PRIMARY KEY (Company_ID, phone),
       constraint Dcompany_phone_PK_FK FOREIGN KEY (Company_ID) REFERENCES Delivery_Company(Company_ID),
       );

insert into Delivery_Company_phone values ('80001','0714337645');
insert into Delivery_Company_phone values ('80002','0725537641');
insert into Delivery_Company_phone values ('80003','0713425674');
insert into Delivery_Company_phone values ('80004','0763425667');
insert into Delivery_Company_phone values ('80005','0712231456');


SELECT * FROM Delivery_Company_phone;

/*Deliverer*/

CREATE TABLE Deliverer(
        Delivery_ID char(20),/*PRIMARY KEY*/
        Address char(20),
        Name char(20),
        Delivery_date int,
        location char(20),
        Company_ID char(6),/*FOREIGN KEY*/
        constraint Deliverer_PK PRIMARY KEY (Delivery_ID),
        constraint Deliverer_PK_FK FOREIGN KEY (Company_ID) REFERENCES Delivery_Company(Company_ID),
        );

insert into Deliverer values ('90001','Matara hakmana','Amal','02052024','Matara','80001');
insert into Deliverer values ('90002','Galle thalpe','Nimal','09072024','Galle','80002');
insert into Deliverer values ('90003','Kandy polgolla','Sunil','08042024','Kandy','80003');
insert into Deliverer values ('90004','Colombo kotte','Kamal','06062024','Kotte','80004');
insert into Deliverer values ('90005','Badulla welimada','Amara','08072024','Badulla','80005');

SELECT * FROM Deliverer;

/*Deliverer phone*/

CREATE TABLE Deliverer_phone(
       Delivery_ID char(20),/*PRIMARY KEY*//*FOREIGN KEY*/
       phone int,/*PRIMARY KEY*//*FOREIGN KEY*/
       constraint Deliverer_Phone_PK PRIMARY KEY ( Delivery_ID),
       constraint Deliverer_phone_PK_FK FOREIGN KEY ( Delivery_ID) REFERENCES Deliverer( Delivery_ID),
       );

insert into Deliverer_phone values ('90001','041564545');
insert into Deliverer_phone values ('90002','077419797');
insert into Deliverer_phone values ('90003','077139005');
insert into Deliverer_phone values ('90004','041225033');
insert into Deliverer_phone values ('90005','077546412');


SELECT * FROM Deliverer_phone;

/*Login*/

CREATE TABLE login(
      login_ID int,/*PRIMARY KEY*/
```

```sql
/*Login*/
CREATE TABLE login(
	login_ID int,/*PRIMARY KEY*/
	password varchar(10),
	Username char(20),
	account_status varchar(10),
	customer_ID char(6),/*FOREIGN KEY*/
	constraint login_PK PRIMARY KEY (login_ID),
	constraint login_PK_FK FOREIGN KEY (customer_ID) REFERENCES Customer(customer_ID),
	);
insert into login values ('200001','ABS@#$','ASD','Status1','60001');
insert into login values ('200002','AHJ#52','SND','Status2','60002');
insert into login values ('200003','ND%$36','WND','Status3','60003');
insert into login values ('200004','THE84#','QND','Status4','60004');
insert into login values ('200005','IB64@$','MKD','Status5','60005');

SELECT * FROM login;

/*Item*/

CREATE TABLE Item(
	Item_ID char(10),/*PRIMARY KEY */
	Unit_Price float,
	Name char(20),
	Discount float,
	Cart_ID int,/*FOREIGN KEY*/
	login_ID int,/*FOREIGN KEY*/
	constraint Item_PK PRIMARY KEY (Item_ID),
	constraint Item_PK_FK FOREIGN KEY (login_ID) REFERENCES login(login_ID),
	constraint Item_PK_FK1 FOREIGN KEY (Cart_ID) REFERENCES Cart(Cart_ID),

	);

insert into Item values ('300001','700.00','KIDS F', '20.00','1000','200001');
insert into Item values ('300002','1700.00','WOMEN B', '100.00','1001','200002');
insert into Item values ('300003','1000.00','MEN T', '80.00','1002','200003');
insert into Item values ('300004','800.00','WOMEN F', '50.00','1003','200004');
insert into Item values ('300005','650.00','MEN T', '30.00','1004','200005');

SELECT * FROM Item;
drop table Item;


/*Customer_Item*/

CREATE TABLE Customer_Item (
	Item_ID char(10),/*PRIMARY KEY*//*FOREIGN KEY */
	Customer_ID char(6),/*PRIMARY KEY*//*FOREIGN KEY */
	constraint Customer_Item_PK PRIMARY KEY (Item_ID , Customer_ID),
	constraint Customer_Item_FK FOREIGN KEY ( Customer_ID) REFERENCES Customer(Customer_ID),
	constraint Customer_Item_FK1 FOREIGN KEY ( Item_ID) REFERENCES Item(Item_ID),
	);

 insert into Customer_Item  values ('300001','60001');
 insert into Customer_Item  values ('300002','60002');
 insert into Customer_Item  values ('300003','60003');
 insert into Customer_Item  values ('300004','60004');
 insert into Customer_Item  values ('300005','60005');


SELECT * FROM Customer_Item;
```

```sql
/*Item_Supplier*/

CREATE TABLE Item_Supplier(
      Item_ID char(10),/*PRIMARY KEY*//*FOREIGN KEY*/
      SupplierId char(10),/*PRIMARY KEY*//*FOREIGN KEY*/
      constraint Item_Supplier_PK PRIMARY KEY (Item_ID , SupplierId),
      constraint Item_Supplier_FK FOREIGN KEY ( Item_ID) REFERENCES Item(Item_ID),
      constraint Item_Supplier_FK1 FOREIGN KEY ( SupplierId) REFERENCES Supplier(SupplierId),
      );


 insert into Item_Supplier  values ('300001','70001');
 insert into Item_Supplier  values ('300002','70002');
 insert into Item_Supplier  values ('300003','70003');
 insert into Item_Supplier  values ('300004','70004');
 insert into Item_Supplier  values ('300005','70005');

SELECT * FROM Item_Supplier;
drop table Item_Supplier;
```

```sql
/*Manage*/

CREATE TABLE Manage_A(
      login_ID int,/*PRIMARY KEY*//*FOREIGN KEY*/
      account_ID int,/*PRIMARY KEY*//*FOREIGN KEY*/
      NIC char(10),/*PRIMARY KEY*//*FOREIGN KEY*/
      constraint Manage_A_PK PRIMARY KEY (login_ID , account_ID,NIC),
      constraint Manage_A_FK FOREIGN KEY ( login_ID) REFERENCES login(login_ID),
      constraint Manage_A_FK1 FOREIGN KEY ( account_ID) REFERENCES Account(account_ID),
      constraint Manage_A_FK2 FOREIGN KEY ( NIC) REFERENCES Admin(NIC),
      );

insert into Manage_A values ('200001','0000001','20026201V');
insert into Manage_A values ('200002','0000002','20016201V');
insert into Manage_A values ('200003','0000003','20026711V');
insert into Manage_A values ('200004','0000004','19656631V');
insert into Manage_A values ('200005','0000005','92345011V');


SELECT * FROM Manage_A ;

/*Process*/

CREATE TABLE Process(
      Receipt_ID int,/*PRIMARY KEY*//*FOREIGN KEY*/
      Order_ID char(6),/*PRIMARY KEY*//*FOREIGN KEY*/
      Delivery_ID char(20),/*PRIMARY KEY*//*FOREIGN KEY*/
      constraint  Process_PK PRIMARY KEY (Receipt_ID,Order_ID,Delivery_ID ),
      constraint  Process_FK FOREIGN KEY ( Receipt_ID) REFERENCES Receipt(Receipt_ID),
      constraint  Process_FK1 FOREIGN KEY ( Order_ID) REFERENCES Orders(Order_ID),
      constraint  Process_FK2 FOREIGN KEY ( Delivery_ID) REFERENCES Deliverer(Delivery_ID),
```

```sql
/*Process*/

CREATE TABLE Process(
      Receipt_ID int,/*PRIMARY KEY*//*FOREIGN KEY*/
      Order_ID char(6),/*PRIMARY KEY*//*FOREIGN KEY*/
      Delivery_ID char(20),/*PRIMARY KEY*//*FOREIGN KEY*/
      constraint  Process_PK PRIMARY KEY (Receipt_ID,Order_ID,Delivery_ID ),
      constraint  Process_FK FOREIGN KEY ( Receipt_ID) REFERENCES Receipt(Receipt_ID),
      constraint  Process_FK1 FOREIGN KEY ( Order_ID) REFERENCES Orders(Order_ID),
      constraint  Process_FK2 FOREIGN KEY ( Delivery_ID) REFERENCES Deliverer(Delivery_ID),
      );

insert into Process values ('20001','40001','90001');
insert into Process values ('20002','40002','90002');
insert into Process values ('20003','40003','90003');
insert into Process values ('20004','40004','90004');
insert into Process values ('20005','40005','90005');

SELECT * FROM Process ;

/*Manage*/

CREATE TABLE Manage(
      NIC char(10),/*PRIMARY KEY*//*FOREIGN KEY*/
      Company_ID char(6),/*PRIMARY KEY*//*FOREIGN KEY*/
      supplierCompanyId char(6),/*PRIMARY KEY*//*FOREIGN KEY*/
      constraint Manage_PK PRIMARY KEY (NIC,Company_ID,supplierCompanyId ),
      constraint Manage_FK FOREIGN KEY ( NIC) REFERENCES Admin(NIC),
      constraint Manage_FK1 FOREIGN KEY ( Company_ID) REFERENCES Delivery_Company(Company_ID),
      constraint Manage_FK2 FOREIGN KEY ( supplierCompanyId) REFERENCES Supplier_Company(supplierCompanyId),
      );
```

```sql
/*Manage*/

CREATE TABLE Manage(
	NIC char(10),/*PRIMARY KEY*//*FOREIGN KEY*/
	Company_ID char(6),/*PRIMARY KEY*//*FOREIGN KEY*/
	supplierCompanyId char(6),/*PRIMARY KEY*//*FOREIGN KEY*/
	constraint Manage_PK PRIMARY KEY (NIC,Company_ID,supplierCompanyId ),
	constraint Manage_FK FOREIGN KEY ( NIC) REFERENCES Admin(NIC),
	constraint Manage_FK1 FOREIGN KEY ( Company_ID) REFERENCES Delivery_Company(Company_ID),
	constraint Manage_FK2 FOREIGN KEY ( supplierCompanyId) REFERENCES Supplier_Company(supplierCompanyId),
	);

insert into Manage values ('20026201V','80001','100001');
insert into Manage values ('20016201V','80002','100011');
insert into Manage values ('20026711V','80003','100111');
insert into Manage values ('19656631V','80004','101111');
insert into Manage values ('92345011V','80005','111111');

SELECT * FROM Manage ;
```

READ TABLE

```sql
SELECT * FROM Cart;
SELECT * FROM Account;
SELECT * FROM Admin ;
SELECT * FROM Supplier_Company ;
SELECT * FROM Cart_Item;
SELECT * FROM Receipt;
SELECT * FROM Customer;
SELECT * FROM Customer_phone;
SELECT * FROM Payment;
SELECT * FROM Delivery_Company;
SELECT * FROM Delivery_Company_phone;
SELECT * FROM Deliverer;
SELECT * FROM Deliverer_phone;
SELECT * FROM Supplier ;
SELECT * FROM login;
SELECT * FROM Item ;
SELECT * FROM Customer_Item ;
SELECT * FROM Item_Supplier;
SELECT * FROM Orders;
SELECT * FROM Manage ;
SELECT * FROM Process ;
SELECT * FROM Manage_A ;
```

INSERT DATA

100 %

Results | Messages

	Cart_ID
1	1000
2	1001
3	1002
4	1003
5	1004

	account_ID	a_type	a_password	username
1	1	VIP	@#$123	Nimal
2	2	ADMIN	HTU7849	Kamal
3	3	VIP	H&%849	Kasun
4	4	ADMIN	#&89FN	Nadun
5	5	VIP	H&@MKd...	Kamal

	NIC	address	firstName	lastName
1	19656631V	Palatuwa Matara	Kasuni	Chamalka
2	20016201V	Boralasgamuwa colombo	Amila	Shamika
3	20026201V	13/A Colombo 7	Amila	Shamika
4	20026711V	14A Marata Paburana	Kumudu	perera
5	92345011V	50/A Colombo 4	Pramila	Gunase...

	supplierCompanyId	name	phone_no	town	city
1	100001	ABC	77419795	Matara	Hakmana
2	100011	DEF	71036720	Galle	Ahangama
3	100111	GHI	71499332	Colo...	Kotte
4	101111	JKL	76312463	Kandy	polgolla
5	111111	MOP	41476963	Badu...	Walimada

100 %

Results | Messages

	CartItem_ID	Quantity	Number_of_items	Total_price	Order_ID	Cart_ID
1	50001	5	5	12000	40001	1000
2	50002	10	10	13000	40002	1001
3	50003	2	2	600	40003	1002
4	50004	3	3	800	40004	1003
5	50005	7	7	10000	40005	1004

	Receipt_ID	Rtype	total_Payment	Discount	NIC
1	20001	typeA	15000	2000	20026201V
2	20002	typeB	10000	500	20026201V
3	20003	typeB	1700	100	20026201V
4	20004	typeA	1450	200	20026201V
5	20005	typeA	1850	300	20026201V

	Customer_ID	Email	firstname	lastname	account_ID	Payment_ID
1	60001	thari@gmail.com	Amaa	perera	1	30001
2	60002	nadee@gmail.com	Nayomi	fernando	2	30002
3	60003	sara@gmail.com	Sara	Bimalka	3	30003
4	60004	kila@gmail.com	kilaa	Sudeepa	3	30004
5	60005	anju@gmail.com	Anju	Mihiran	4	30005

	Customer_ID	phone
1	60001	714338497
2	60002	710367205
3	60003	775682044
4	60004	719872233
5	60005	713815610

100 %

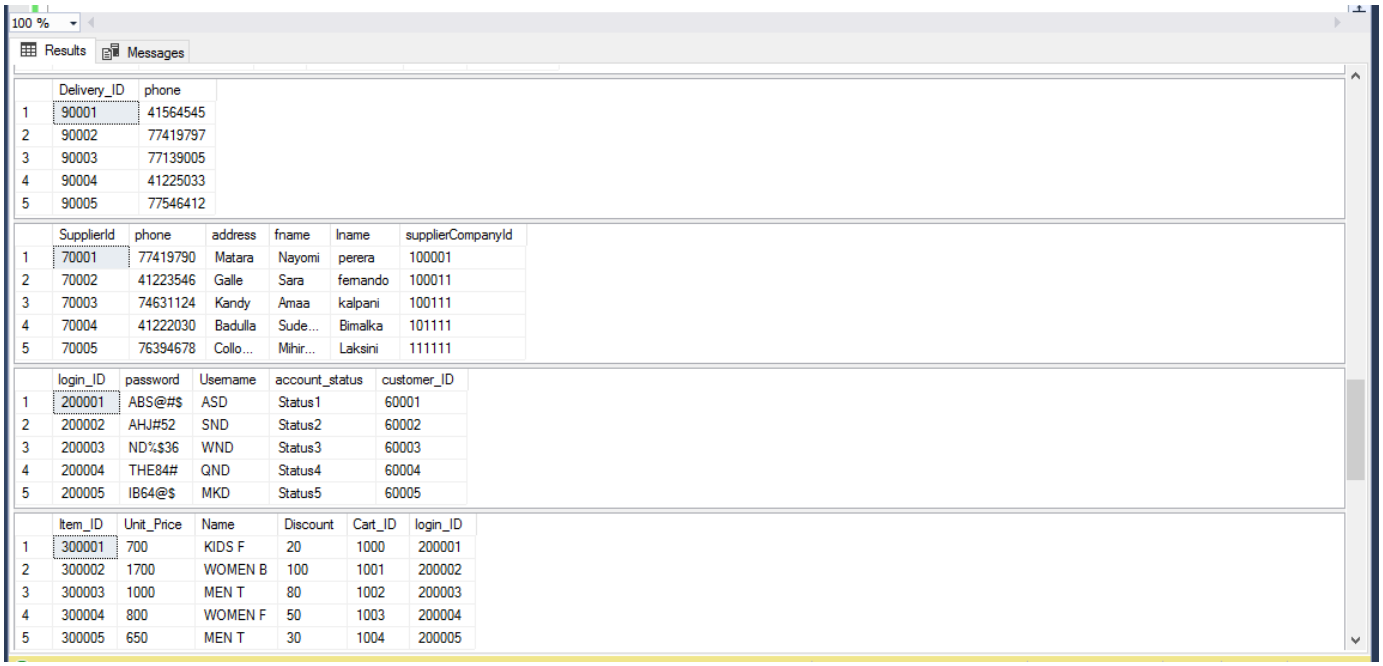
Results | Messages

	Payment_ID	card	payPal	Receipt_ID
1	30001	Visa	NO	20001
2	30002		YES	20002
3	30003	D...	NO	20003
4	30004	Visa	NO	20004
5	30005	D...	NO	20005

	Company_ID	Name
1	80001	ABCD
2	80002	EFGH
3	80003	IJKL
4	80004	MN...
5	80005	QRST

	Company_ID	phone
1	80001	714337645
2	80002	725537641
3	80003	713425674
4	80004	763425667
5	80005	712231456

	Delivery_ID	Address	Name	Delivery_date	location	Company_ID
1	90001	Matara hakmana	Amal	2052024	Matara	80001
2	90002	Galle thalpe	Nimal	9072024	Galle	80002
3	90003	Kandy polgolla	Sunil	8042024	Kandy	80003
4	90004	Colombo kotte	Kamal	6062024	Kotte	80004
5	90005	Badulla welima...	Am...	8072024	Badulla	80005

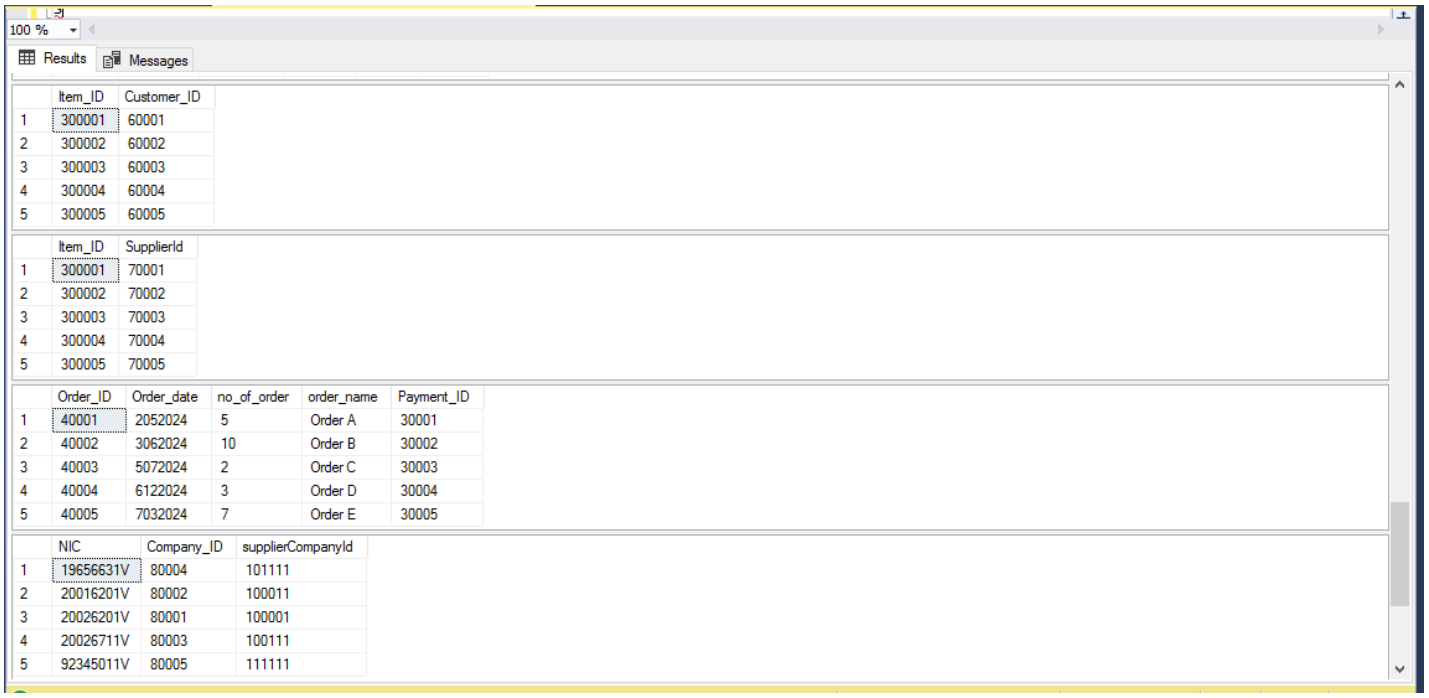


	Delivery_ID	phone
1	90001	41564545
2	90002	77419797
3	90003	77139005
4	90004	41225033
5	90005	77546412

	SupplierId	phone	address	fname	lname	supplierCompanyId
1	70001	77419790	Matara	Nayomi	perera	100001
2	70002	41223546	Galle	Sara	fernando	100011
3	70003	74631124	Kandy	Amaa	kalpani	100111
4	70004	41222030	Badulla	Sude...	Bimalka	101111
5	70005	76394678	Collo...	Mihir...	Laksini	111111

	login_ID	password	Username	account_status	customer_ID
1	200001	ABS@#$	ASD	Status1	60001
2	200002	AHJ#52	SND	Status2	60002
3	200003	ND%$36	WND	Status3	60003
4	200004	THE84#	QND	Status4	60004
5	200005	IB64@$	MKD	Status5	60005

	Item_ID	Unit_Price	Name	Discount	Cart_ID	login_ID
1	300001	700	KIDS F	20	1000	200001
2	300002	1700	WOMEN B	100	1001	200002
3	300003	1000	MEN T	80	1002	200003
4	300004	800	WOMEN F	50	1003	200004
5	300005	650	MEN T	30	1004	200005



100 %

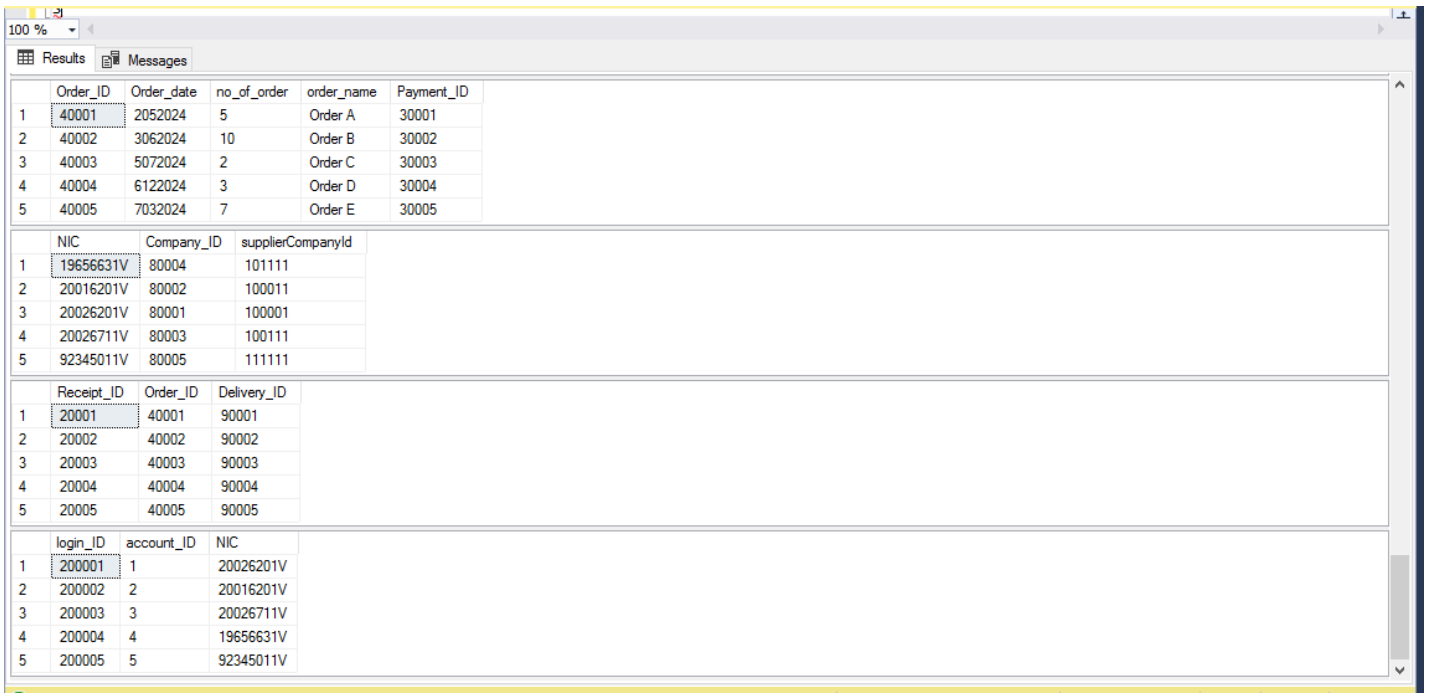
Results Messages

	Item_ID	Customer_ID
1	300001	60001
2	300002	60002
3	300003	60003
4	300004	60004
5	300005	60005

	Item_ID	SupplierId
1	300001	70001
2	300002	70002
3	300003	70003
4	300004	70004
5	300005	70005

	Order_ID	Order_date	no_of_order	order_name	Payment_ID
1	40001	2052024	5	Order A	30001
2	40002	3062024	10	Order B	30002
3	40003	5072024	2	Order C	30003
4	40004	6122024	3	Order D	30004
5	40005	7032024	7	Order E	30005

	NIC	Company_ID	supplierCompanyId
1	19656631V	80004	101111
2	20016201V	80002	100011
3	20026201V	80001	100001
4	20026711V	80003	100111
5	92345011V	80005	111111



100 %

Results Messages

	Order_ID	Order_date	no_of_order	order_name	Payment_ID
1	40001	2052024	5	Order A	30001
2	40002	3062024	10	Order B	30002
3	40003	5072024	2	Order C	30003
4	40004	6122024	3	Order D	30004
5	40005	7032024	7	Order E	30005

	NIC	Company_ID	supplierCompanyId
1	19656631V	80004	101111
2	20016201V	80002	100011
3	20026201V	80001	100001
4	20026711V	80003	100111
5	92345011V	80005	111111

	Receipt_ID	Order_ID	Delivery_ID
1	20001	40001	90001
2	20002	40002	90002
3	20003	40003	90003
4	20004	40004	90004
5	20005	40005	90005

	login_ID	account_ID	NIC
1	200001	1	20026201V
2	200002	2	20016201V
3	200003	3	20026711V
4	200004	4	19656631V
5	200005	5	92345011V

8. Special Performance

The Online Fashion Store has some Special Performance.

- Efficient User Profile Creation: Through the platform's administrator interface, users may quickly and easily build their user profiles, which expedites the registration process and improves user experience.

- Scalability: Before using the system, users frequently think about its security. For instance, it's critical to safeguard client privacy. The following security requirements are satisfied by this Online Fashion Store.

- Quick checkout process: Customer can finish their transactions swiftly and securely with improved checkout procedure, which lowers cart abandonment rates.

- Personalized recommendations: The store improves the shopping experience and boosts customer happiness by using sophisticated algorithms to deliver personalized product recommendations based on consumer preferences, browsing history, and purchase behavior.

- Transparent Ratings: Clients are able to rate service according to how satisfied they are, which aids in upholding quality standards and aids prospective clients in making decisions.

- Quick online Payment: Customer may easily and confidently complete speedy transactions on the platform thank to its efficient and safe online payment solutions

- Social Media Integration: Use social media interact with customer, advertise your products, and increase traffic to your online store. Use social media sites such as pinterest and instagram to promote products and creative visual content

9. Special Security Requirements

Before using the system, users frequently think about its security.

For instance, it's critical to safeguard client privacy. The following security requirements are satisfied by Online Fashion Store.

1. High level security: The online fashion store prioritizes maintaining a high level of security to protect customer data and sensitive information from unauthorized access.
2. Tight Access Management
3. Database should have a backup of all the data in the system.
4. Robust Firewall Defense
5. Encryption of Data in Transit
6. Personal details of users should be encrypted before send to the database.
7. Unauthorized users should be unable to access restricted features.
8. Only the admins can access and modify the data of the system.
9. For one email address, there should be only one user account.
10. Database server must maintain with redundant server.