|  |  |  |
| --- | --- | --- |
| **Actor** | **System** | |
| 1. Choose command “Add Product”  Main screen: | 2. Display “Add Product” screen  “Add Product” screen | |
| 3. Input data then click “Add” button  “Add Product” Screen with data: | | 4. Hide “Add Product” Screen and display “Add Product Successfully”  Screen: |
| 5. Click on “OK” button | | 6. Display “Main” Screen |

Name: Adding a new customer into the system

Steps: Describe each step using a 2-column format

|  |  |  |
| --- | --- | --- |
| **Actor** | **System** | |
| 1. Choose command “Add Customer”  Main screen: | 2. Display “Add Customer” screen  “Add Customer” screen | |
| 3. Input data then click “Add” button  “Add Product” Screen with data: | | 4. Hide “Add Customer” Screen and display “Add Customer Successfully”  Screen: | |
| 5. Click on “OK” button | | 6. Display “Main” Screen |

Name: Adding a new purchase into the system

Steps: Describe each step using a 2-column format

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| --- | --- | --- |
| **Actor** | **System** | |
| 1. Choose command “Add Purchase”  Main screen: | 2. Display “Add Purchase” screen  “Add Purchase” screen | |
| 3. Input data then click “Add” button  “Add Purchase” Screen with data: | | 4. Hide “Add Purchase” Screen and display “Add Purchase Successfully”  Screen: | |
| 5. Click on “OK” button | | 6. Display “Main” Screen |

Entities:

Customers(CustomerID, Name, PaymentMethod, PhoneNumber)

Products(ProductID, Name, Price, Stock)

Relationship:

Purchase(ProductID, CustomerID, QuantityBought, TotalCharge, PaymentMethod)

2.)

ProductID

CustomerID

QuantityBought

TotalCharge

PaymentMethod

CustomerID

Name

Payment Method

Phone Number

Customers

Purchase

ProductID

Name

Price  
Stock

Products

3.) Customers

|  |  |  |  |
| --- | --- | --- | --- |
| CustomerID | Name | Payment Method | Phone Number |
| 0 | Joe Smith | Credit Card | 5555555555 |
| 1 | Sue Brown | Cash | 5551111111 |
| 2 | Adam Brown | Debit Card | 5552222222 |
| 3 | Joe Campbell | Cash | 5553333333 |
| 4 | Mason Hassan | Check | 5554444444 |

Products

|  |  |  |  |
| --- | --- | --- | --- |
| ProductID | Name | Price | Stock |
| 0 | Apple | 2 | 1000 |
| 1 | Orange | 2.5 | 750 |
| 2 | Banana | 1 | 500 |
| 3 | Grapes | 4 | 120 |
| 4 | Lemon | 3 | 400 |

Purchase

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ProductID | CustomerID | QuantityBought | TotalCharge | PaymentMethod |
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Keys:

Customers(CustomerID, Name, PaymentMethod, PhoneNumber)

Products(ProductID, Name, Price, Stock)

Purchase(ProductID, CustomerID, QuantityBought, TotalCharge, PaymentMethod)

4.)

Customers(CustomerID, Name, PaymentMethod, PhoneNumber)

CREATE TABLE Customers (

CustomerID int not null primary key,

Name varchar(100),

PaymentMethod varchar(100),

PhoneNumber int

);

Products(ProductID, Name, Price, Stock)

CREATE TABLE Products (

ProductID int not null primary key,

Name varchar(100),

Price int,

Stock int

);

Purchase(ProductID, CustomerID, QuantityBought, TotalCharge, PaymentMethod)

CREATE TABLE Purchase (

ProductID int not null primary key,

CustomerID int not null primary key,

QuantityBought int,

TotalCharge float,

PaymentMethod varchar(100)

);

INSERT INTO Customers (CustomerID, Name, PaymentMethod, PhoneNumber)

VALUES

(0, Joe Smith, Credit card, 5555555555),

(1, Sue Brown, cash, 5551111111),

(2, Adam Brown, debit card, 5552222222),

(3, Joe Campbell, cash, 5553333333),

(4, Mason Hassen, check, 5554444444);

INSERT INTO Products (ProductID, Name, Price, Stock)

VALUES

(0, Apple, 2, 1000),

(1, Orange, 2.5, 750),

(2, Banana, 1, 500),

(3, Grape, 4, 120),

(4, Lemon, 3, 400);

INSERT INTO Purchase(ProductID, CustomerID, QuantityBought, TotalCharge, PaymentMethod)

VALUES

(0, 1, 2, 4, cash),

(3, 4, 3, 12, check),

(1, 1, 1, 2.5, cash),

(4, 4, 4, 12, check),

(2, 0, 1, 1, credit card),

(0, 3, 2, 4, cash),

(3, 2, 3, 12, cash),

(0, 4, 1, 2, check),

(2, 2, 2, 2, debit card),

(1, 3, 2, 5, cash);