Name: Adding a new product into the system

Steps:

|  |  |
| --- | --- |
| **Actor** | **System** |
| 1. Choose command “Add Product”   “Main” Screen: | 1. Display “Add Product” Screen   “Add Product” Screen: |
| 1. Input data then click “Add” button   “Add Product” Screen with data and “Add” selected | 1. Hide “Add Product” Screen and display “Add Product Successfully” Screen or display “Product Already in System” Screen if the product has been added previously   “Add Product Successfully” Screen    “Product Already in System” Screen |
| 1. Click on the “OK” button   “Add Product Successfully” Screen with “OK” selected    “Product Already in System” Screen with “OK” selected | 1. Display “Main” Screen   “Main” Screen |

Name: Adding a new customer into the system

Steps:

|  |  |
| --- | --- |
| **Actor** | **System** |
| 1. Choose command “Add Customer”   “Main” Screen: | 1. Display “Add Customer” Screen   “Add Customer” Screen: |
| 1. Input data then click “Add” button   “Add Customer” Screen with data and “Add” selected | 1. Hide “Add Customer” Screen and display “Add Customer Successfully” Screen or display “Customer Already in System” Screen if the customer has been added previously   “Add Customer Successfully” Screen    “Customer Already in System” Screen |
| 1. Click on the “OK” button   “Add Customer Successfully” Screen with “OK” selected    “Customer Already in System” Screen with “OK” selected | 1. Display “Main” Screen   “Main” Screen |

Name: Adding a new purchase into the system

Steps:

|  |  |
| --- | --- |
| **Actor** | **System** |
| 1. Choose command “Add Purchase”   “Main” Screen: | 1. Display “Add Purchase” Screen   “Add Purchase” Screen: |
| 1. Input data then click “Add” button   “Add Purchase” Screen with data and “Add” selected | 1. Hide “Add Purchase” Screen and display “Add Purchase Successfully” Screen or display “Purchase Already in System” Screen if the purchase has been added previously   “Add Purchase Successfully” Screen    “Purchase Already in System” Screen |
| 1. Click on the “OK” button   “Add Purchase Successfully” Screen with “OK” selected    “Purchase Already in System” Screen with “OK” selected | 1. Display “Main” Screen   “Main” Screen |

Entity-Relationship Diagram



Relationships:

Products(**productID**, name, price, taxRate, quantity, vendor, description, expiration)

Customers(**customerID**, name, address, phone, payment)

Purchases(**purchaseID**, customerID, productID, date, quantity, price, tax, totalCost)

Design:

﻿ ﻿CREATE TABLE "Products" (

"productID" INTEGER NOT NULL,

"name" TEXT NOT NULL,

"price" REAL NOT NULL,

"taxRate" REAL NOT NULL,

"quantity" INTEGER NOT NULL,

"vendor" TEXT,

"description" TEXT,

"expiration" TEXT,

PRIMARY KEY("productID")

);

﻿ ﻿CREATE TABLE "Customers" (

"customerID" INTEGER NOT NULL,

"name" TEXT NOT NULL,

"address" TEXT,

"phone" INTEGER,

"payment" TEXT,

PRIMARY KEY("customerID")

);

﻿ ﻿CREATE TABLE "Purchases" (

"purchaseID" INTEGER NOT NULL,

"customerID" INTEGER NOT NULL,

"productID" INTEGER NOT NULL,

"date" TEXT NOT NULL,

"quantity" INTEGER NOT NULL,

"price" REAL NOT NULL,

"tax" REAL NOT NULL,

"totalCost" REAL NOT NULL,

PRIMARY KEY("purchaseID")

);

﻿﻿

INSERT INTO Products(productID, name, price, taxRate, quantity, vendor, description, expiration)

VALUES

(00000001, "Red Fish", 3.99, 0.09, 15, "The Lonely Island", "Red. Not blue.", "9/23/19"),

(00000002, "Blue Fish", 4.99, 0.09, 15, "The Lonely Island", "Blue. Not red.", "9/24/19"),

(00000003, "Paper", 9.99, 0.04, 100, "Dunder Mifflin", "The People Person’s Paper People.", NULL),

(00000004, "A Big Fork", 14.79, 0.09, 1, "The Big Fork Company", "For big pasta.", NULL),

(00000005, "Refrigerator", 250.99, 0.03, 50, "Vance Refrigeration", "Keep your food cold.", NULL);

﻿﻿INSERT INTO Customers(customerID, name, address, phone, payment)

VALUES

(00000001, "Jim Halpert", "123 Circle Street", 1234567890, "Visa"),

(00000002, "Michael Scott", "123 Square Street", 1234567891, "MasterCard"),

(00000003, "Dwight Schrute", "123 Triangle Street", 1234567892, "American Express"),

(00000004, "Pam Beesly", "123 Circle Street", 1234567893, "Visa"),

(00000005, "Andy Bernard", "123 Rhombus Street", 1234567894, "Capital One");

INSERT INTO Purchases(purchaseID, customerID, productID, date, quantity, price, tax, totalCost)

VALUES

(00000001, 00000001, 00000001, "9/13/2019", 5, 3.99, 0.36, 21.75),

(00000002, 00000001, 00000002, "9/13/2019", 5, 4.99, 0.45, 27.20),

(00000003, 00000002, 00000004, "10/09/2019", 1, 14.79, 1.33, 16.12),

(00000004, 00000002, 00000005, "10/10/2019", 1, 250.99, 7.53, 258.52),

(00000005, 00000003, 00000003, "9/27/2019", 50, 9.99, 0.40, 10.39),

(00000006, 00000003, 00000003, "9/30/2019", 50, 9.99, 0.40, 10.39),

(00000007, 00000004, 00000001, "9/13/2019", 5, 3.99, 0.36, 21.75),

(00000008, 00000004, 00000002, "9/13/2019", 5, 4.99, 0.45, 27.20),

(00000009, 00000005, 00000005, "10/10/2019", 1, 250.99, 7.53, 258.52),

(00000010, 00000005, 00000002, "9/13/2019", 5, 4.99, 0.45, 27.20);