**User Story 1:**

As a user, I want to add a new Product into the system.

Use Case 1: User enters data that will be stored in the database.

|  |  |
| --- | --- |
| **Actor** | **Action** |
| 1. Click button “Add Product”   Main screen: | 1. Display “Add Products” screen   “Add Products” screen: |
| 1. Input data & click button “Add Product” “Add Product” screen with input data: | 1. Confirmation box: |
| 1. Click “OK” | 1. Display Main screen |

Use Case 2: User will enter invalid Product ID.

|  |  |
| --- | --- |
| **Actor** | **Action** |
| 1. Click button “Add Product”   Main screen: | 1. Display “Add Products” screen   “Add Products” screen: |
| 1. Input data & click button “Add Product” “Add Product” screen with input data: | 1. Error box: |
| 1. Click “OK” | 1. Display Main screen |

**User Story 2:**

As a user, I want to add a new Customer into the system.

Use Case 1: User enters data that will be stored in the database.

|  |  |
| --- | --- |
| **Actor** | **Action** |
| 1. Click button “Add Customer”   Main screen: | 1. Display “Add Customer” screen   “Add Customer” screen: |
| 1. Input valid data & click “Add” | 1. Confirmation box: |
| 1. Click “OK” | 1. Display Main screen |

Use Case 2: User enters invalid Customer Phone.

|  |  |
| --- | --- |
| **Actor** | **Action** |
| 1. Click button “Add Customer”   Main screen: | 1. Display “Add Customer” screen   “Add Customer” screen: |
| 1. Input valid data & click “Add” | 1. Error box: |
| 1. Click “OK” | 1. Display Main screen |

**User Story 3:**

As a user, I want to add a new Purchase into the system.

Use Case 1: User enters data that will be stored in the database.

|  |  |
| --- | --- |
| **Actor** | **Action** |
| 1. Click button “Add Purchase”   Main screen: | 1. Display “Add Purchase” screen   “Add Purchase” screen: |
| 1. Input valid data & click “Add” | 1. Confirmation box: |
| 1. Click “OK” | 1. Display Main screen |

Use Case 2: User enters invalid Customer ID.

|  |  |
| --- | --- |
| **Actor** | **Action** |
| 1. Click button “Add Purchase”   Main screen: | 1. Display “Add Purchase” screen   “Add Purchase” screen: |
| 1. Input valid data & click “Add” | 1. Error box: |
| 1. Click “OK” | 1. Display Main screen |

**Task 2**

Design database logical

Customers(**CustomerID** name, Phone, Address)

Products(**ProductID**, Name, Price, Quantity, Vendor, TaxRate)

Orders(**OrderID**, *CustomerID*, *ProductID*, Quantity, Price, TotalTax, TotalCost)

[*https://sqlitebrowser.org/blog/version-3-11-2-released/*](https://sqlitebrowser.org/blog/version-3-11-2-released/) *DB.Browser.for.SQLite-3.11.2-win64.zip*



**Task 3**

**CREATE TABLE "Customers" (**

"CustomerID" INTEGER NOT NULL,

"Name" TEXT DEFAULT 'Guest',

"Phone" TEXT DEFAULT '(334) 444-7865',

"Address" TEXT DEFAULT 'Magnolia Avenue',

PRIMARY KEY("CustomerID")

**);**

**CREATE TABLE "Products"** (

"ProductID" INTEGER NOT NULL,

"Name" TEXT NOT NULL DEFAULT ‘Batteries’,

"Price" REAL NOT NULL,

"Quantity" INTEGER NOT NULL DEFAULT 1,

"Vendor" TEXT NOT NULL DEFAULT ‘Energizer Inc.’,

"TaxRate" REAL NOT NULL DEFAULT 0.09,

PRIMARY KEY("ProductID")

);

**CREATE TABLE "Orders"** (

"OrderID" INTEGER NOT NULL PRIMARY KEY AUTOINCREMENT,

"CustomerID" INTEGER NOT NULL,

"ProductID" INTEGER NOT NULL,

"Price" REAL,

"Quantity" REAL DEFAULT 1,

"TotalTax" REAL DEFAULT 0.09,

"TotalCost" REAL,

FOREIGN KEY("CustomerID") REFERENCES "Customers"("CustomerID"),

FOREIGN KEY("ProductID") REFERENCES "Products"("ProductID")

);