Project 1 / Gi Hong Lee

Design UI and write use case for "add a new product into the system".

1. Write two possible use cases for each user story: one is the common case and one is the exception.
2. Design the screens (UI windows and widgets) the system should display in each use case.

ADD PRODUCT USE CASES

1. Common case for “Add Product”

|  |  |
| --- | --- |
| 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: | 1. Hide “Add Product” Screen and display “Add product successfully” screen:   “Add product successfully” screen: |
| 1. Click on “OK” | 1. Display “Main” screen |

1. Exception case for “Add Product”

|  |  |
| --- | --- |
| 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: | 1. Hide “Add Product” Screen and display “exception” screen:   Price is Invalid!  OK |
| 1. Click on “OK”   Price is Invalid!  OK | 1. Display “Main” screen |

ADD CUSTOMER USE CASES

* 1. Common Case for Add Customer

|  |  |
| --- | --- |
| 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 product” Screen with data: | 1. Hide “Add Product” Screen and display “Add product successfully” screen:   Product added successfully!(1,”asd”,”11”,”11”)  Customer ID: 1  Customer Name: asd  Customer Phone: 11  Customer Address: 11  OK |
| 1. Click on “OK”   Product added successfully!(1,”asd”,”11”,”11”)  Customer ID: 1  Customer Name: asd  Customer Phone: 11  Customer Address: 11  OK | 1. Display “Main” screen |

* 1. Exception Case for Add Customer

|  |  |
| --- | --- |
| 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 product” Screen with data: | 1. Hide “Customer” Screen and display “exception” screen:   CustomerID is invalid!  Customer Address: 11  OK |
| 1. Click on “OK”   OK  CustomerID is invalid! | 1. Display “Main” screen |

ADD PURCHASE USE CASES

* 1. Common Case for Add Purchase

|  |  |
| --- | --- |
| Actor | System |
| 1. Choose command “Add Purchase”   Main screen: | 1. Display “Add Purchase” Screen   “Purchase” screen |
| 1. Input data then click “add” button   “Add purchase” Screen with data: | 1. Hide “Customer” Screen and display “exception” screen:   Purchase added successfully!(1,1,1,10.0,1.0,10.0,)  Purchase ID: 1 Customer ID: 1 Product ID : 1 Product Quantity: 1.0 Purchase Cost : 10.0 Purchase Tax: 0.8999 Purchase Total : 10.9 Purchase Date: Tue Oct 15 16:16:!6 CDT 2019  OK |
| 1. Click on “OK”   Purchase added successfully!(1,1,1,10.0,1.0,10.0,)  Purchase ID: 1 Customer ID: 1 Product ID : 1 Product Quantity: 1.0 Purchase Cost : 10.0 Purchase Tax: 0.8999 Purchase Total : 10.9 Purchase Date: Tue Oct 15 16:16:!6 CDT 2019  OK | 1. Display “Main” screen |

* 1. Exception for Add Purchase

|  |  |
| --- | --- |
| Actor | System |
| 1. Choose command “Add Purchase”   Main screen: | 1. Display “Add Purchase” Screen   “Purchase” screen |
| 1. Input data then click “add” button   “Add purchase” Screen with data: | 1. Hide “Customer” Screen and display “exception” screen:   Error Message  Error : Invalid PurchaseID  OK |
| 1. Click on “OK”   Error Message  Error : Invalid PurchaseID  OK | 1. Display “Main” screen |

1. Design the database physically and prepare data for the tables, with at least 5 products, 5 customers, and 10 purchases.

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CREATE TABLE Customers(

CustomerID INTEGER not null PRIMARY key,

Name TEXT,

PhoneNumber TEXT,

Address TEXT);

CREATE TABLE Products (

ProductID INTEGER not null PRIMARY key,

Name TEXT,

Price REAL,

Quantity REAL,

TaxRate REAL);

CREATE TABLE Purchases(

PurchaseID INTEGER not null PRIMARY key,

CustomerID INTEGER,

ProductID INTEGER,

DateTime TEXT,

Quantity REAL,

Price REAL,

Tax REAL,

TotalCost REAL);

INSERT INTO Customers

VALUES

(1, 'Tung', ' 334-555-5555', 'Vietnam'),

(2, 'Lee', '334-504-8401 ', 'Korea'),

(3, 'Tim', '334-504-0000', 'China'),

(4, 'Nugyen, '123-456-7899 ', 'Vietnam'),

(5, 'Jiyeon', '334-122-3333', 'Greens, Auburn');

INSERT INTO Products

VALUES

(1, 'Apple', 0.99, 100.0, 0.09),

(2, 'Orange', 1.99, 200.0, 0.09),

(3, 'iPhone X', 1199.99, 100.0, 0.09),

(4, 'Lemon', 1.99, 50.0, 0.09),

(5, 'Soju', 10.99, 30.0, 0.15);

INSERT INTO Purchases

VALUES

(1, 1, 1, '09/09/19 10:48', 1, 0.99, 0.09, 1.08),

(2, 2, 2, '09/02/19 04:56', 3, 5.97, 0.54, 6.51),

(3, 3, 3, '09/03/19 08:33', 2, 2399.98, 216.00, 2615.98),

(4, 4, 4, '09/05/19 12:12', 7, 3.50, 0.315, 3.815),

(5, 5, 5, '09/10/19 02:38', 5, 24.0, 2.16, 26.16),

(6, 1, 1, '09/10/19 03:24', 10, 9.90, 0.89, 10.79),

(7, 2, 2, '09/10/19 04:58', 15, 9.95, 0.90, 10.85),

(8, 3, 3, '09/11/19 22:33', 1, 1199.99, 108.00, 1307.99),

(9, 4, 4, '09/12/19 23:40', 20, 10.00, 0.90, 10.90),

(10, 5, 5, '09/13/19 14:43', 6, 5.94, 0.53, 6.50);