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Comp 3700

10/16/2019

Project 1 Design Document

“Adding a new product into the system” common use case:

|  |  |
| --- | --- |
| **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    “Add Product Successfully” screen: |
| 5. Click on “Ok” button: | Display “Main” screen: |

“Adding a new product into the system” exception use case:

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

“Adding a new customer into the system” common use case:

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| --- | --- |
| **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 Customer” screen with data: | 4. Hide “Add Customer” screen and display “Add Customer Successfully” screen    “Add Customer Successfully” screen: |
| 5. Click on “Ok” button: | Display “Main” screen: |

“Adding a new customer into the system” exception use case:

|  |  |
| --- | --- |
| **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 Customer” screen with data: | 4. Hide “Add Customer” screen and display “Add Customer Failed” screen    “Add Customer Failed” screen: |
| 5. Click on “Ok” button: | Display “Add Customer” screen: |

“Add a new purchase into the system” common use case:

|  |  |
| --- | --- |
| **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    “Add Purchase Successfully” screen: |
| 5. Click on “Ok” button: | Display “Main” screen: |

“Add a new purchase into the system” exception use case:

|  |  |
| --- | --- |
| **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 Failed” screen    “Add Purchase Failed” screen: |
| 5. Click on “Ok” button: | Display “Add Purchase” screen: |

Entity-Relationship Diagram:

A close up of a map

Description automatically generated

SQL code:

Products(**productid**, Barcode, name, price, quantity)

CREATE TABLE "Products" (

"ProductID" INTEGER NOT NULL,

"Name" TEXT DEFAULT ' ',

"Price" INTEGER,

"Quantity" INTEGER DEFAULT 0,

PRIMARY KEY("ProductID")

);

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

VALUES (1, 'Apple', 0.99, 10), (2, 'Headphones', 9.99, 20), (3, 'Gum', 2.99, 50), (4, ‘Banana’, 1.99, 100), (5, ‘Carrot’, 0.59, 30)

Customers(**customerid**, name, address, phone)

CREATE TABLE "Customers" (

"CustomerID" INTEGER NOT NULL,

"Name" TEXT DEFAULT ' ',

"Address" TEXT DEFAULT ' ',

"Phone" TEXT DEFAULT ' ',

PRIMARY KEY("CustomerID")

);

INSERT INTO Customers(CustomerID, Name, Address, Phone)

VALUES (1, 'John Smith', 'Auburn,AL', '(257) 123-4567'), (2, 'Jane Doe', 'Opelika,AL', '(527) 356-7634'),

(3, 'Carl Sanders', 'Atlanta,GA', '(770) 476-2398'), (4, ‘Jim Carrolton’, ‘Huntsville,AL 36805’, ‘(256) 285-4567'), (5, ‘Lando Calrissian’, ‘Columbus,GA’, ‘(762) 483-0295')

Purchases(Purchaseid, Customerid, Productid, "Date/Time", Quantity, "Total Cost")

CREATE TABLE "Purchases" (

"PurchaseID" INTEGER NOT NULL,

"CustomerID" INTEGER NOT NULL,

"ProductID" INTEGER NOT NULL,

"Date/Time" INTEGER NOT NULL,

"Quantity" INTEGER,

"Total Cost" INTEGER,

PRIMARY KEY("PurchaseID")

);

INSERT INTO Purchases(PurchaseID, CustomerID, ProductID, "Date/Time", Quantity, "Total Cost")

VALUES (1, 2, 4, '8/4/2019 11:10:03', 4, 8.52), (2, 5, 3, '8/7/2019 16:25:43', 1, 3.20), (3, 3, 2, '8/10/2019 12:59:59', 1, 10.69), (4, 1, 4, '8/20/2019 15:47:52', 2, 4.26), (5, 1, 1, '8/20/2019 15:47:52', 3, 3.19), (6, 3, 1, '9/3/2019 11:40:00', 5, 5.30), (7, 1, 3, '9/5/2019 15:42:05', 1, 3.20), (8, 2, 2, '9/10/2019 4:35:32', 1, 10.69), (9, 4, 5, '9/13/2019 10:26:04', 3, 1.89), (10, 3, 4, '9/14/2019 14:59:39', 2, 4.26)