**Two possible use cases**

**Add product**

First one, a user wants to add a new product into the system. The user input all the information into the system, as the shown below.

User

add product

ProductID Name Price Quantity

(1) (apple) (1) (1)

Product added successfully!

Second, if the user lacks part information when he adds a new product, likes omitting the ProductID.

User

add product

ProductID Name Price Quantity

( ) (apple) (1) (1)

ProductID cannot be null!

**Add customer**

First one, a user wants to add a new customer into the system. The user input all the information into the system, as the shown below.

User

add customer

CustomerID Name Phone Address

(11) (jay) (334) (147H)

Customer added successfully!

Second, if the user lacks part information when he adds a new costumer, likes omitting the CustomerID.

User

add customer

CustomerID Name Phone Address

( ) (jay) (334) (147H)

CustomerID cannot be null!

**Add purchase**

First one, a user wants to add a new purchase into the system. The user input all the information into the system, as the shown below.

User

add purchase

PurchaseID CustomerID ProductID Quantity

(111) (11) (1) (1)

Purchase added successfully!

Second, if the user lacks part information when he adds a new purchase, likes omitting the PurchaseID.

User

add purchase

PurchaseID CustomerID ProductID Quantity

( ) (11) (1) (1)

PurchaseID cannot be null!

**Design the screens**

**Add product**

Case1

图片包含 屏幕截图

描述已自动生成 图片包含 屏幕截图

描述已自动生成

Case2

图片包含 屏幕截图

描述已自动生成 图片包含 屏幕截图

描述已自动生成

**Add customer**

Case1

图片包含 屏幕截图

描述已自动生成 图片包含 屏幕截图

描述已自动生成

Case2

**图片包含 屏幕截图

描述已自动生成** **图片包含 屏幕截图

描述已自动生成**

**Add purchase**

Case1

图片包含 屏幕截图

描述已自动生成 图片包含 屏幕截图

描述已自动生成

Case2

图片包含 屏幕截图

描述已自动生成 图片包含 屏幕截图

描述已自动生成

**Design the database physically and prepare data**

﻿

CREATE TABLE "Customers" (

"CustomerID" INTEGER,

"Name" TEXT,

"Phone" INTEGER,

"Address" TEXT

)

﻿CREATE TABLE "Products" (

"ProductID" INTEGER,

"Name" TEXT,

"Price" INTEGER,

"Quantity" INTEGER

)

﻿CREATE TABLE "Purchases" (

"PurchaseID" INTEGER,

"CustomerID" INTEGER,

"ProductID" INTEGER,

"Price" INTEGER,

"Quantity" INTEGER,

"Cost" INTEGER,

"Tax" INTEGER,

"Total" INTEGER,

"Data" INTEGER

)

|  |  |  |  |
| --- | --- | --- | --- |
| **ProductID** | **Name** | **Price** | **Quantity** |
| 1 | apple | 1 | 1 |
| 2 | bb | 2 | 2 |
| 3 | cc | 3 | 3 |
| 4 | dd | 4 | 4 |
| 5 | ee | 5 | 5 |

|  |  |  |  |
| --- | --- | --- | --- |
| **CustomerID** | **Name** | **Phone** | **Address** |
| 11 | jay | 334 | 147h |
| 22 | bb | 335 | 123q |
| 33 | cc | 336 | 1234z |
| 44 | dd | 337 | fewase |
| 55 | ee | 3345 | xewadeqw |
| **PurchaseID** | **CustomerID** | | **ProductID** | **Price** | **Quantity** |
| 111 | 11 | | 1 | 1 | 1 |
| 222 | 22 | | 2 | 2 | 2 |
| 333 | 33 | | 3 | 3 | 3 |
| 444 | 44 | | 4 | 4 | 4 |
| 555 | 55 | | 5 | 5 | 5 |
| 666 | 11 | | 2 | 2 | 1 |
| 777 | 22 | | 4 | 4 | 2 |
| 888 | 33 | | 5 | 5 | 3 |
| 888 | 44 | | 3 | 3 | 1 |
| 999 | 11 | | 2 | 2 | 2 |
| 100 | 55 | | 4 | 4 | 3 |

**Implement the use cases**

图片包含 屏幕截图

描述已自动生成

图片包含 屏幕截图

描述已自动生成

图片包含 屏幕截图

描述已自动生成

**Test the system**

图片包含 屏幕截图

描述已自动生成

图片包含 屏幕截图

描述已自动生成

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图片包含 屏幕截图

描述已自动生成