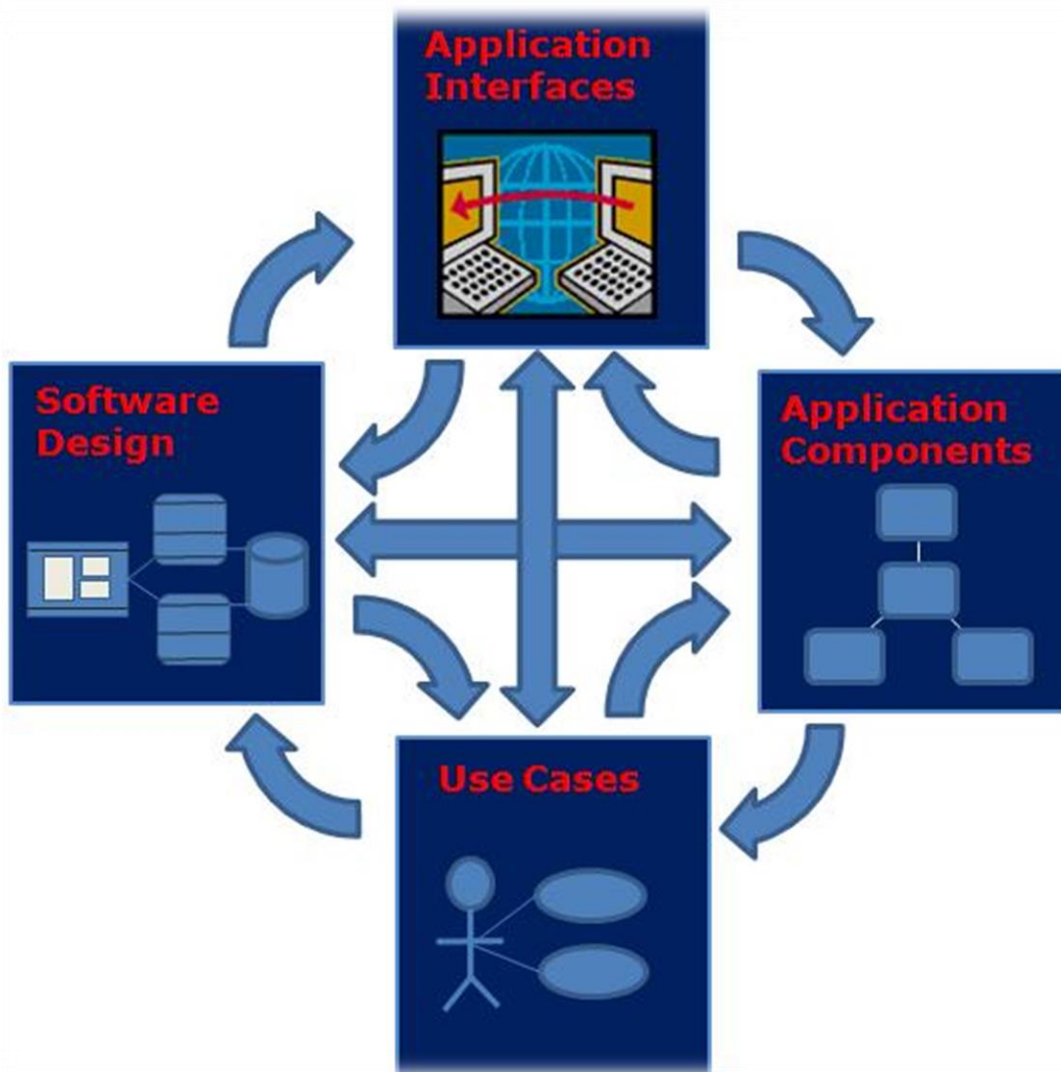


# Smart Shopping App

## Design Manual

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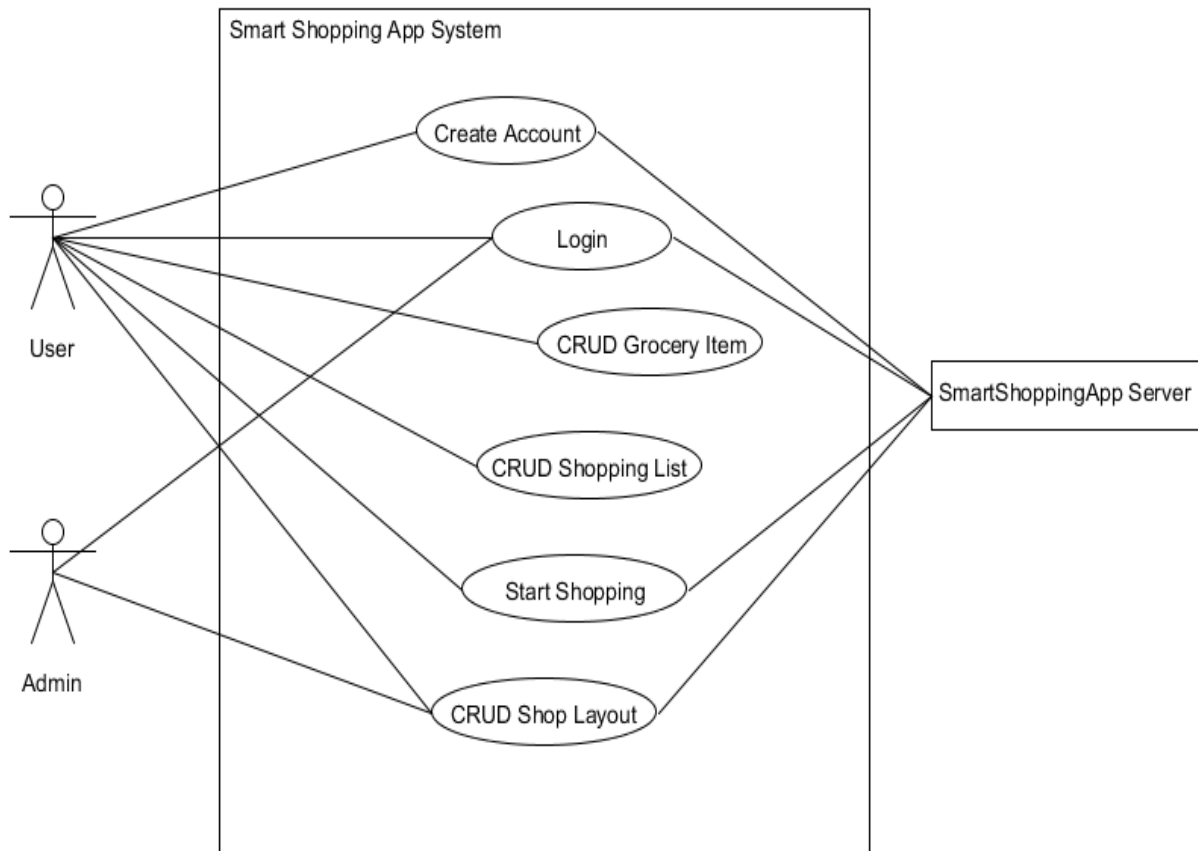
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# 1 Introduction

The goal of this document is to show the design of the interaction between the User and application. In this document you will find many diagrams showing the connection between the user and the application, these diagrams can be Use Cases, Detail Use Cases, Domain Model, System Sequence Diagram, The Contracts, The Sequence Diagram, Contract and Design Class Diagram.

## 2 Architecture Design

### 2.1 Use Case Diagram



Create Account

**Actors:** User

**Description:** This use case start when the user wants to create account. The user enters all of the information that is required and then the user click confirm button. The user will receive an email that is requiring verifying their account.

Login

**Actors:** User, Admin

**Description:** The use case begin when the user want to login. The user enters their information and then he/she click login button.

CRUD Grocery Item

**Actors:** User

**Description:** The user case begin when the user want to add in a grocery item into the grocery item list. The user input a unique item name and then he/she click on the button add on cart. When the grocery item is created successfully, it will be display within the screen.

CRUD Shopping List

**Actors:** User

**Description:** The user begin when the user want to create a Shopping list. The user enter the information into the textbox and click the create button. When the shopping list is creating successfully, it will be display within the screen.

CRUD Shop Layout

**Actors:** User, Admin

**Description:** The user begin when the user want to create a shop layout. The user click on the button creates and then the user input the information into the pop up screen. The user then click on create shop layout when all information are filled. The shop layout will be created in the cloud database and will be retrieve and display within that screen.

Start Shopping

**Actors:** User

**Description:** This use case start when the user wants to start shopping. When the user has already create and shopping list and select all the grocery item, the user then click on the start shopping option in the Shopping List Screen.

## 2.2 Detail Use Case

### Create Account

**Actors:** User

**Main Success Scenario:**

1. The use case begin when the user click on the sign up links.
2. The user enters the username.
3. The user enters the password.
4. The user enters the re-password.
5. The user enters his email address.
6. The user click confirm button.
7. The information is record in the cloud server pending database.
8. The user login their email and click on link to verify their account.
9. The user account is register into the cloud server user account database.

**Alternative Scenario:**

3a.The password is too short.

1. The user enters a longer password.
2. The user click on the confirm button again.

3b.The password and re-password don't match.

1. The user re-enter the password for password and re-password.
2. The user click on the confirm button again.

6a.The user username already exist.

1. The user enters a different username.
2. The user click on the confirm button again.

## Login

**Actors:** User, Admin

### **Main Success Scenario:**

1. The use case begin when the use click on login button in the main menu.
2. The user enters their username.
3. The user enters their password.
4. The user click on the login button.

### **Alternative Scenario**

4a.The user enters the wrong password/username.

1. The user re-enter their username and password.
2. The click on the login button again.

## CRUD Grocery Item

**Actors:** User

### **Main Success Scenario:**

1. The use case begin when the user click on the add grocery item button in the main menu.
2. The user enters the grocery item.
3. The user click adds to cart.
4. The item is been display within the screen.

### **Alternative Scenario**

3. The grocery item already exists.

1. The alert pop up screen will display the error.
2. The user re-enter another grocery item.

## CRUD Shopping List

**Actors:** User

### **Main Success Scenario:**

1. The user case begin when the user click on add shopping list in the main menu screen.
2. The user enters the shopping list.
3. The user click on the create button.
4. The shopping list display within the screen.
5. The user click on the Shopping list.
6. The user selects the grocery item that she/he wants.
7. The user input information for each grocery item.
8. The user click save when she/he finish.

### **Alternative Scenario**

7a.The user forgot enter the information for the item.

8a.The user forgot to click save after selecting items.

## CRUD Shop Layout

**Actors:** User, Admin

### **Main Success Scenario:**

1. The use case begin when the user click on add shop layout button from the main menu screen.
2. The user click on the create shop layout screen.
3. The user input shop name in the pop up screen.
4. The user input shop location in the pop up screen.
5. The user click create button in the pop up screen.
6. The shop layout is created in the database.
7. The shop layout is retrieve from the database and display within the screen.
8. The user selects the shop layout and fills in the Aisle information.
9. The user click on the save button.
10. The shop layout is then update into the database.

### **Alternative Scenario**

3a.The user forgot to fill in the information.

9a.The user forgot to click save.

Start Shopping

**Actors:** User

**Main Success Scenario:**

1. The use case begin when the user click on Start Shopping in the Shopping List pop up Option.
2. The entire selected item in the shopping list is been retrieve and display within the screen.
3. The user selects whatever item that she had just bought.
4. The selected item is been set to true and highlight to indicate it had been bought.
5. The database is then been update.

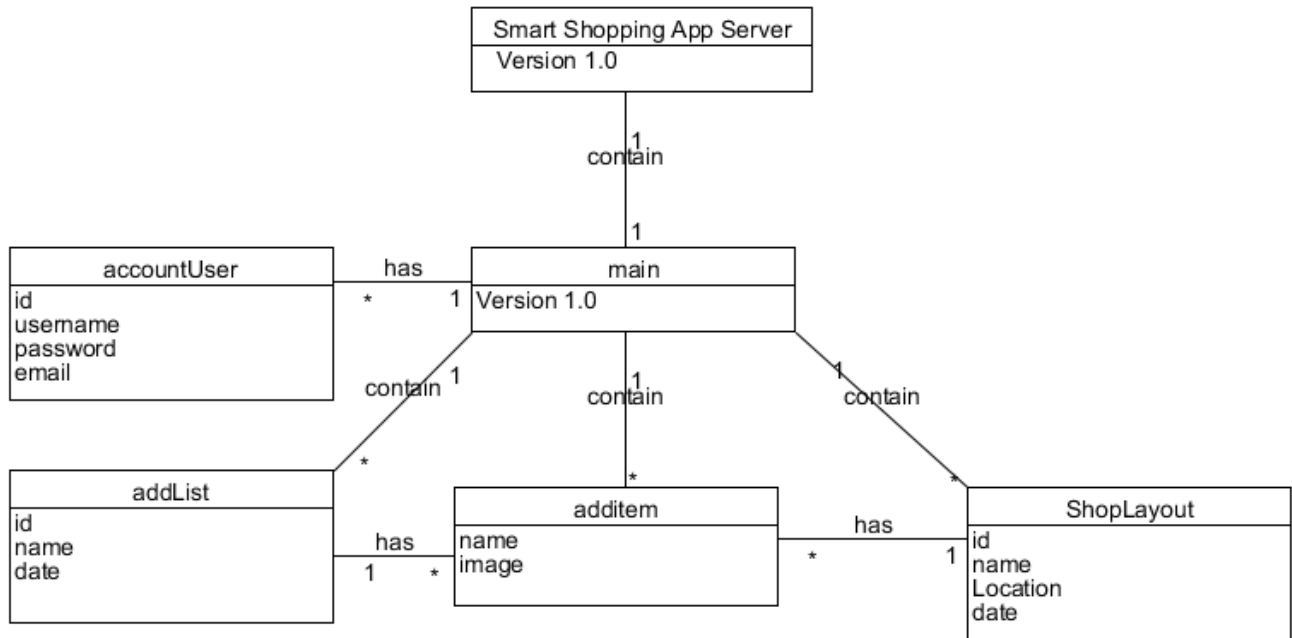
**Alternative Scenario**

3a.The user selects the wrong item.

1. The user deselects the wrong item.
2. The user selects another item.

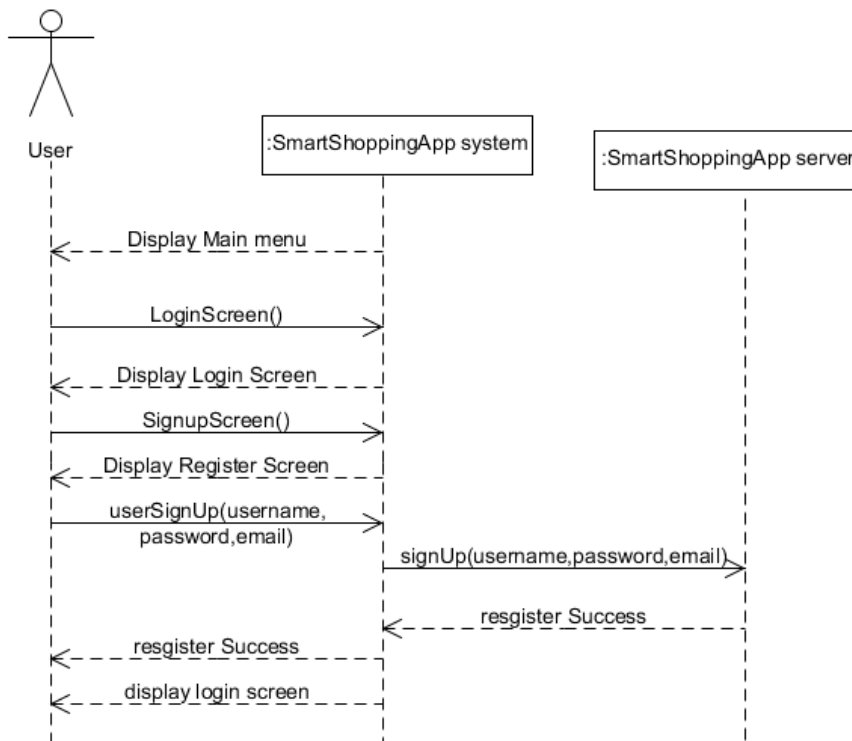


## 2.3 Domain Model

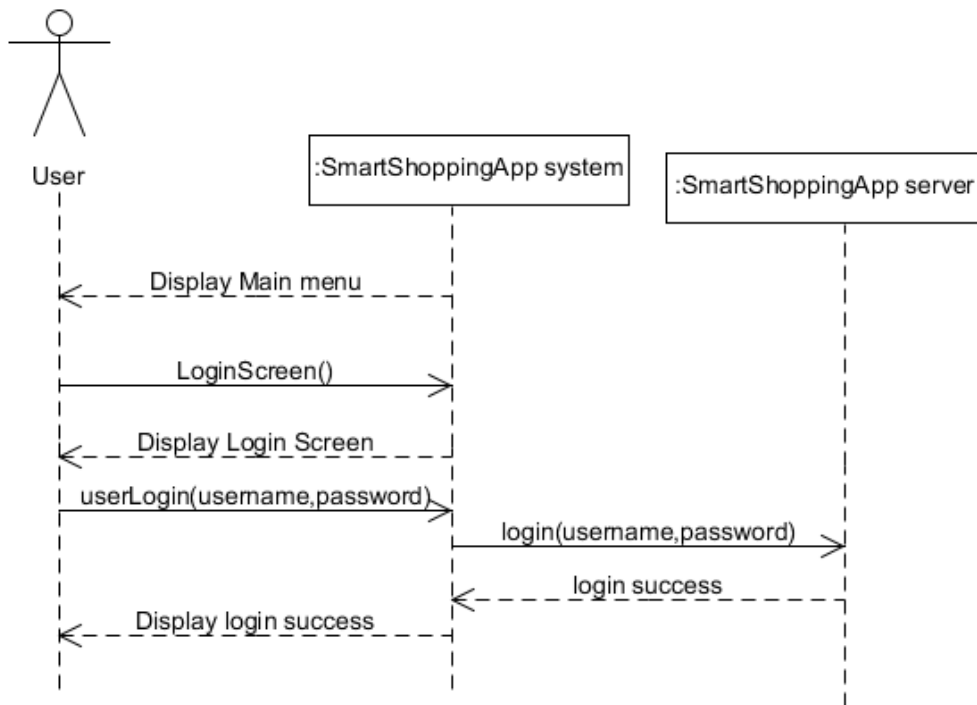


## 2.4 System Sequence Diagram

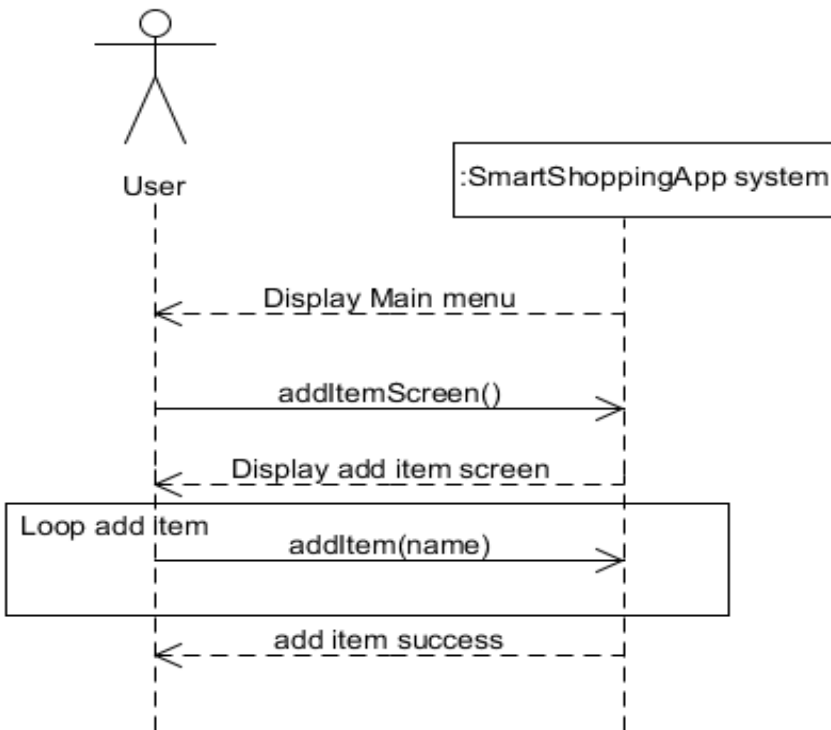
### Register



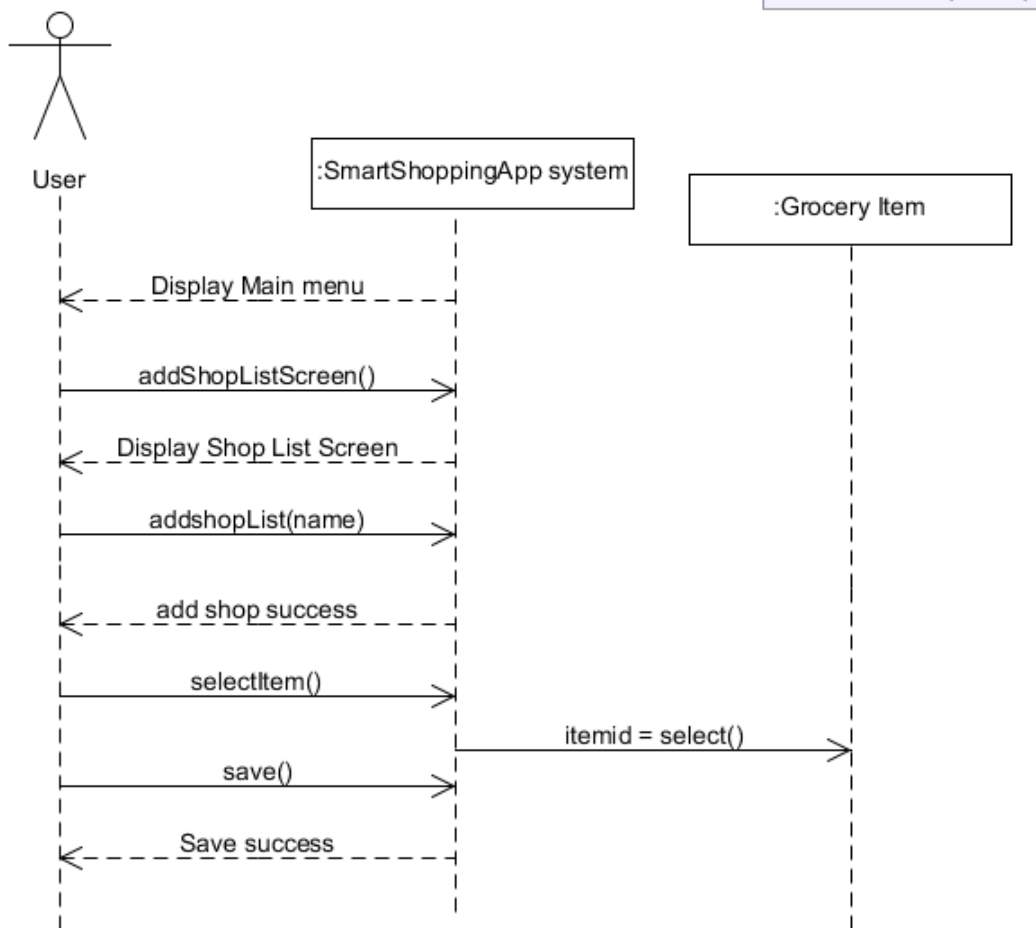
### User Login



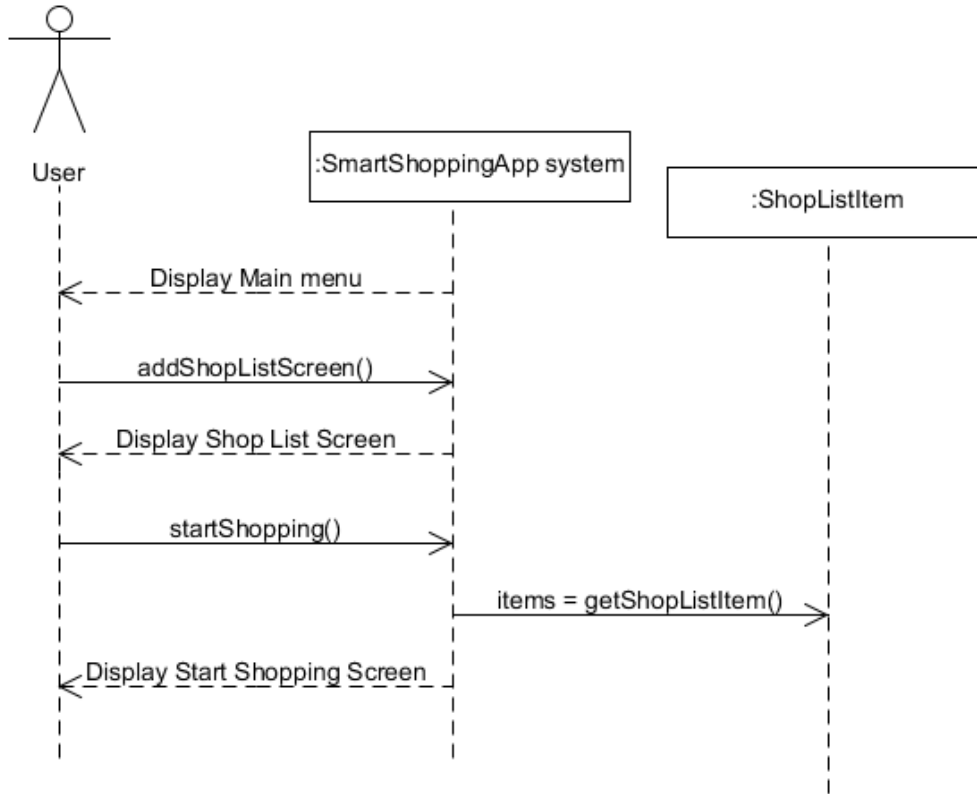
**Add item**



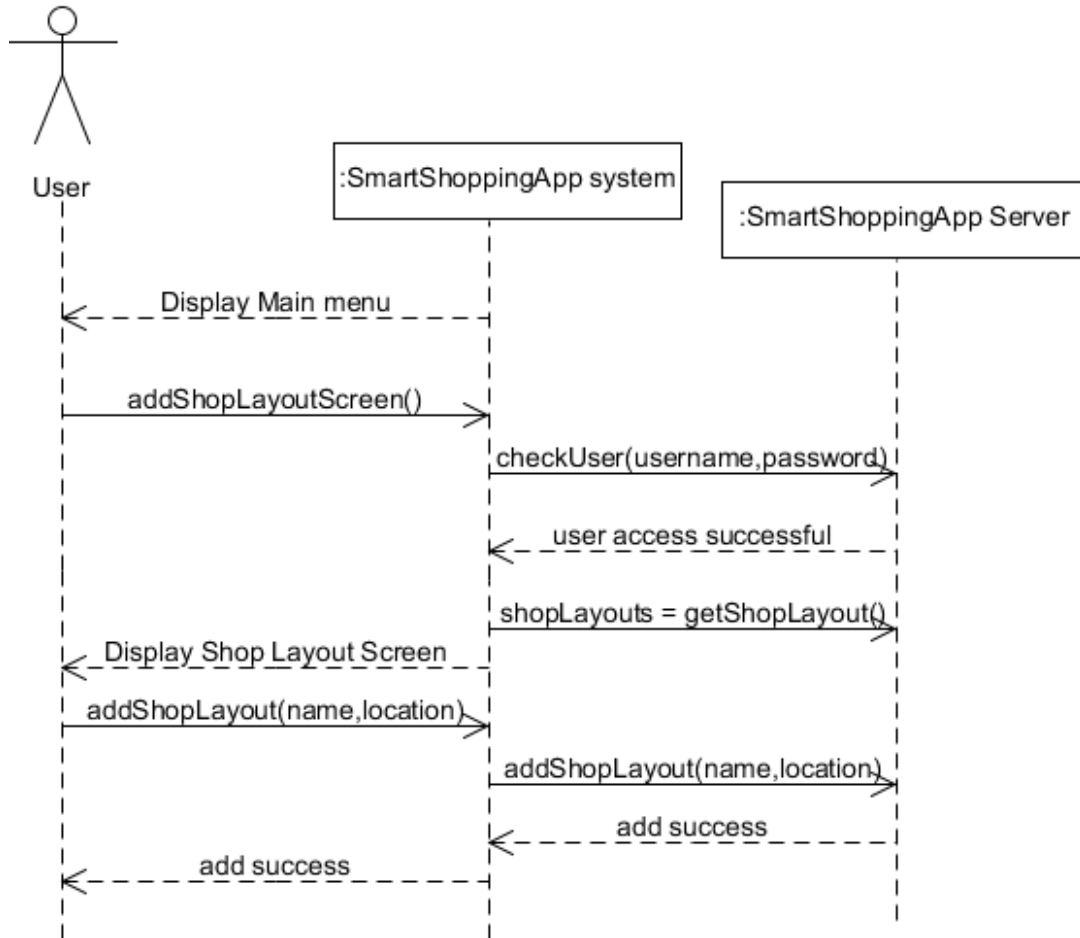
## Add Shop



## Start Shopping



## addShopLayout



### 3 Data Structure

#### 3.1 User Account

Primary Key	Property	Data Type
✓	id	integer
	username	string
	password	string
	email	string

#### 3.2 Shopping List

Primary Key	Property	Data Type
✓	id	integer
	name	string
	date	date

#### 3.3 Shopping Item List

Primary Key	Property	Data Type
✓	name	string
	quantity	integer
	price	float

#### 3.4 Item List

Primary Key	Property	Data Type
✓	name	string
	image	string

#### 3.5 Shop Layout

Primary Key	Property	Data Type
✓	id	integer
	name	string
	location	string
	date	date