

# **System Development Report**

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**PROJECT NAME: SMART VENDING MACHINE**

**COURSE NAME: INTEGRATED DESIGN PROJECT-02**

**COURSE CODE: CSE-460**

**GROUP NO: JULIETT (08)**

**SECTION: A**

**GROUP MEMBERS:**





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## Required Platforms:

Name	Description
<p>MIT App Inventor</p> 	<p>MIT App Inventor is a free and open-source web application integrated development environment to create apps for Android and iOS. For this project the version for Android has been used to make the Smart Vending Machine (SVM) app.</p>
<p>Firebase</p> 	<p>Firebase is an online database platform developed by Google for creating mobile and web applications. Up to 1GB data can be stored in this platform. This platform has been used to connect with the backend database for our app.</p>
<p>GitHub</p> 	<p>GitHub, Inc. is a provider of Internet hosting for software development and version control using Git. It has been used for access control, task management, continuous integration to collaborate the whole project remotely.</p>
<p>Arduino IDE</p> 	<p>The Arduino Integrated Development Environment (IDE) is a cross-platform application written in functions from C and C++. It is used to write and burn the codes to interact among different hardware parts and the app of our project.</p>

## UI Snapshots:

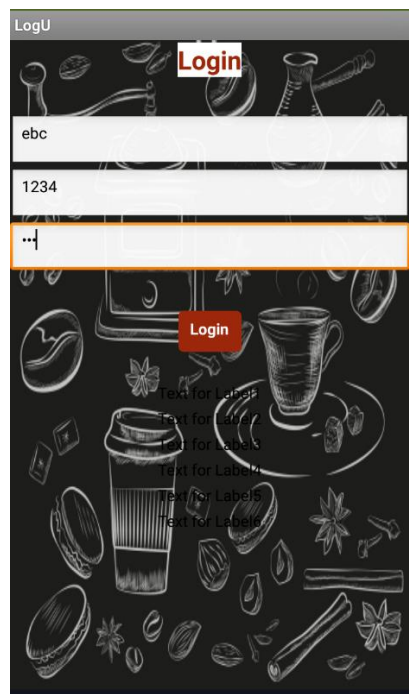
### Start Page:



### Sign Up Page:



Login Page:



User Account Information Page:



## Recharge page for user:

LogU

Account Info Recharge Buy Now

### Recharge Account

Please give your credit card information

Card Number

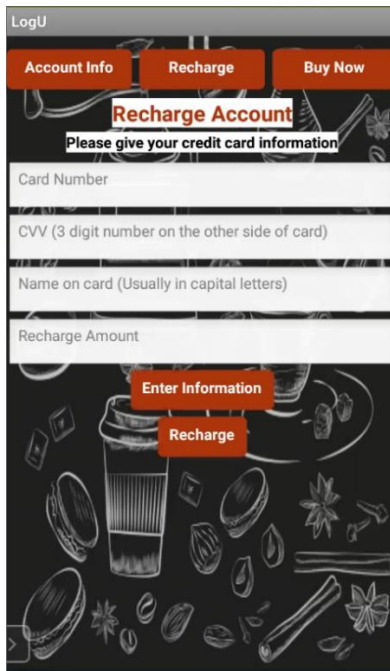
CVV (3 digit number on the other side of card)

Name on card (Usually in capital letters)

Recharge Amount

Enter Information

Recharge



## Buy Now for user:


LogU

Account Info Recharge Buy Now


Turn on your Bluetooth

Connect your phone to Vending Machine


Bluetooth Connection




**Mr. Twist Chips**  
Unit Price: 15  
[Buy](#)




**Lays**  
Unit Price: 20  
[Buy](#)



**Perk**  
Unit Price: 10  
[Buy](#)



**Coca Cola**  
Unit Price: 30  
[Buy](#)



## Login page for admin:



AdminSL

**Enter as Admin**

Admin Name

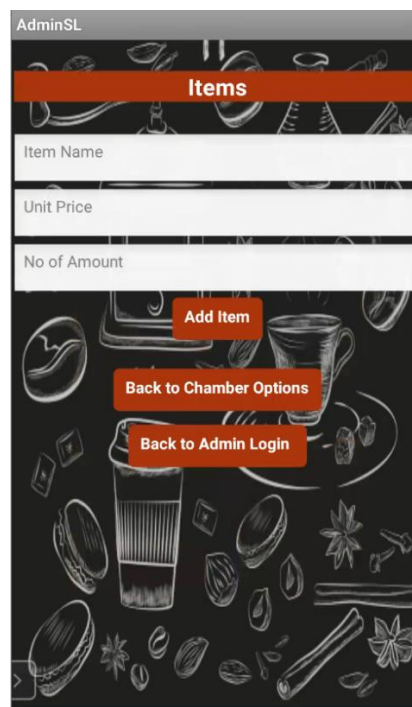
Admin Password

**Admin Login**

**Go To Home**

The background of the page features a dark, chalkboard-style illustration with various coffee-related items: coffee beans, a coffee grinder, a cup of coffee on a saucer, a coffee capsule, and coffee pods.

## Add Item page for admin:



AdminSL

**Items**

Item Name

Unit Price

No of Amount

**Add Item**

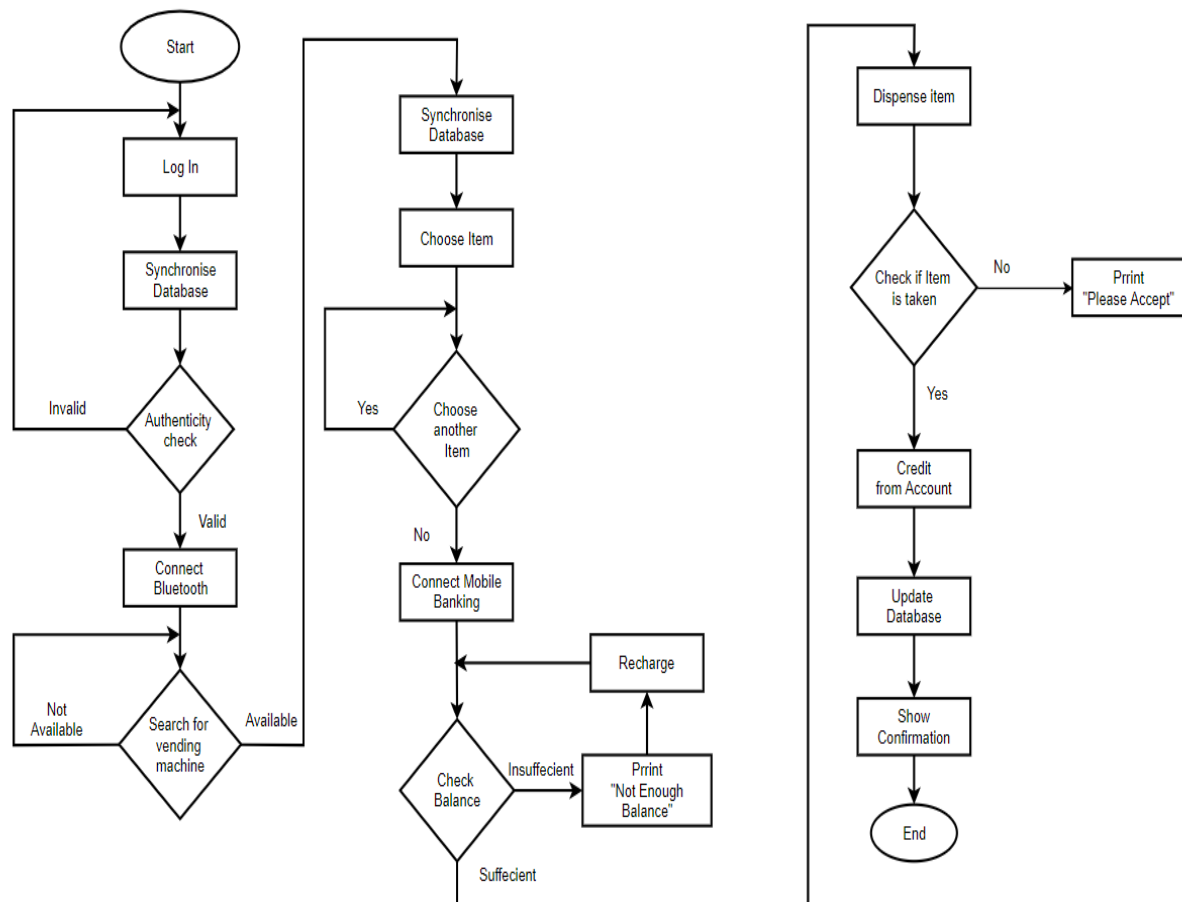
**Back to Chamber Options**

**Back to Admin Login**

The background of the page features a dark, chalkboard-style illustration with various coffee-related items: coffee beans, a coffee grinder, a cup of coffee on a saucer, a coffee capsule, and coffee pods.

## Scenario 1:

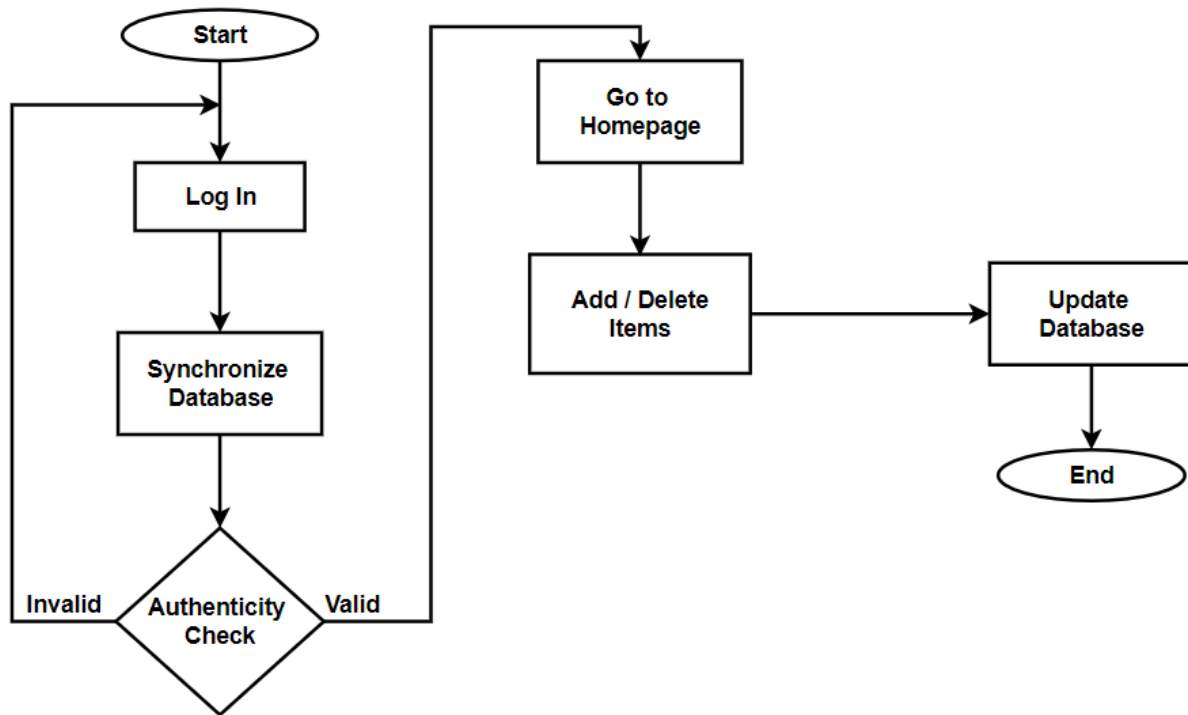
A user can buy an item from this Smart Vending Machine using SVM app. First, he has to register in the app then he will be automatically logged in. After that, he has to connect his mobile to Bluetooth and connect the vending machine with the phone. Then he can choose items from the vending machine using the app. The app will check if his online mobile banking account is sufficient or not. If it is not sufficient then the app will tell the user to recharge his account. If the balance is sufficient the item will get dispensed in the take-out port. The user will be requested to accept the item from the port. The balance will be credited and the purchase is complete.



**Fig:1: Flow diagram for scenario-1**

## Scenario 2:

The admin of the app can access the system by logging in. There are two options: vending machines and manage complaints. There are four options in the vending machine section. He can modify, add or delete any item in the system.



**Fig:2: Flow diagram for scenario-2**