4. Coffee Vending Machine

Problem Statement

To design a simple coffee vending machine with simple and straightforward features that minimize the interaction between the person and the machine and simplifies the coffee vending process to consume less time of the user.

Software Requirement Specification

Purpose

The purpose of this document is to describe the requirements to develop a coffee vending machine. It contains a description of the features required in the coffee vending machine and also the description of other requirements and factors needed to provide a convenient system.

Scope

This system will be a cloud-based system that will cater to the needs of a coffee vending machine. This system promises to make the process as convenient as possible. The benefit of this system is that it looks forward to providing better efficiency than most other similar systems.

Requirements

1. Functional Requirements

   a) Touch screen feature.
   b) Display a list of available items.
   c) Amount check.
   d) Ability to select the desired item.

2. Non-functional Requirements

   a) The database storing the details must be backed-up and secure.
   b) The system should always be powered.

3. User Requirements

   a) Item details should be displayed.
   b) Transaction cancellation and updation should be possible.

Customer Class : This class contains customer details.

VendingMachine Class : This class models the coffee vending machine. It is an aggregation of CoinDispenser, CoinCollector, Coffee and Coffee Dispenser class.

CoinDispenser Class : This class models the coin dispenser module of the vending machine.

CoinCollector Class : This class models the coin collector module of the vending machine.

Coffee Class : This class contains coffee details such as type and price. It is a composition of CoffeePowder, Sugar, Milk and Water class.

Coffee Type : An enumeration which lists the various types of coffee available in the vending machine.