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# **Software Requirements Specification**

**for**

## **Cashier System**

**Version 1.0**

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## Revision History

Name	Date	Reason For Changes	Version

# 1. Introduction

## 1.1 Purpose

*The purpose of this document is to provide and describe the requirements of the Cashier System for SmallBazaar. It will also explain the proposed functionalities, basic interfaces, and the underlying constraints which must be fulfilled.*

*As the process flow follows the Agile model, it will be very effective to make the product perfectly.*

## 1.2 Document Conventions

*Features such as perfect bill calculation, availability of sale for particular products and credit points for the customers and usage of those points for discount are the basic requirements*

*Font Conventions:*

*Conventions For Main Title:*

*Font Specifications: Font size-32, Font colour-Black , Font Style- Arial, Bold*

*Conventions For Sub Title:*

*Font Specifications: Font size-14, Font colour- Black, Font Style- Times, Bold*

*Conventions For Body:*

*Font Specifications: Font size-11, Font colour- Black, Font Style-Arial, Italics*

## 1.3 Intended Audience and Reading Suggestions

*The SRS Document is intended to be read by the project managers to understand the software which will be worked on, what stimuli it reacts to, what systems need to be implemented, and other basic conditions. The document will also be proposed to the client for approval.*

## 1.4 Product Scope

*This software system will be a billing system for Small Bazaar. The system is designed keeping in mind a front-end user's capabilities for billing the items purchased in the bazaar, managing credit points used by the customers and starting and ending sale offers and a back-end database which holds the details of the products, customers, etc. Objective of user is being able to properly bill the items brought by the customers, manage their credit points and start and end sale offers.*

## 1.5 References

*[1] IEEE Software Engineering Standards Committee, "IEEE Std 830-1998, IEEE Recommended Practice for Software Requirements Specifications", October 20, 1998.*

[2] Roger Pressman, *Software Engineering: A Practitioner's Approach*, 7th Edition, McGraw-Hill, 2015.

[3] Pankaj Jalote, *A Concise Introduction to Software Engineering*, Springer, 2009

## **2. Overall Description**

### **2.1 Product Perspective**

*The software helps the cashiers of the shops to bill the products with ease. Features like credit points and sale offers attract a large number of customers which also increases the growth. The credit points can be used by the customers to get discounts which increases the connection between customer and the shop.*

### **2.2 Product Functions**

*The product has an effective billing system.*

*The system automatically gets the price of the products from the database and calculates the total bill amount.*

*Balance amounts can be converted into credit points which can be used later for discount*

*There are also options for enabling and disabling sale offers for products*

*The purchases made are stored in the database and there is also a backup database.*

*The purchase history of a customer can be availed.*

### **2.3 User Classes and Characteristics**

*The cashiers are the users of the software. The frequency of use depends on the working days of the shop(mostly everyday of the week). The software will be very simple to use.*

### **2.4 Operating Environment**

*The software is expected to work on any system.*

### **2.5 Design and Implementation Constraints**

*The system displays the user mobile number and credit points once the user id is typed. Below that the list of objects purchased will be displayed with price, qty, amount and existence of sale. The option for using the credit points to avail discounts will be at the end near the total amount. If the*

*customer wants to avail discount it will be applied and the total amount will be changed accordingly.*

## **2.6 User Documentation**

*A user documentation will be provided with the software for reference which helps the user to clarify the doubts if any at the time of usage.*

## **2.7 Assumptions and Dependencies**

*The software is fast in operation.*

*The datas are stored in the database without any leakage of data*

*Backup of the database is also available*

# **3. External Interface Requirements**

## **3.1 User Interfaces**

*The name and address of the shop will be displayed at the top. The customer number, phone number, credit points will be displayed below. These details will be followed by the name of the product purchased, price, qty, availability of sale and amount. The total amount and the option for enabling discount will be displayed below. A thank you message will be displayed at the bottom. The buttons are of medium size and the button to avail discount is of green colour.*

## **3.2 Hardware Interfaces**

- *Minimum 1 Gb of RAM, recommended 2 Gb or higher*
- *Intel Core i3 3<sup>rd</sup> gen or higher*
- *AMD Ryzen any series processor*
- *No GPU requirements*
- *Available Connectivity to items database*

## **3.3 Software Interfaces**

- *Visual Studio Code*
- *XAMPP Server*
- *Windows 7+*
- *Ability to run java*
- *Oracle or MySQL database for connectivity (specified by customer)*

### 3.4 Communications Interfaces

*Should be able to connect to the internet.*

## 4. System Features

*System Features of the software are listed below.*

### 4.1 System Feature 1 – Billing

#### 4.1.1 Description and Priority

*This feature is the base to our software. This feature calculates the total bill of the customer.*

#### 4.1.2 Stimulus/Response Sequences

*The cashier enters the user id into the system.*

*The system shows the customer's mobile number and number of credits owned by the customer.*

*The cashier scans the items and the details of each and every item will be displayed.*

*The details include item name, price, qty, availability of sale, and amount.*

*The total amount which is the sum of all the items will be displayed at the end.*

*The sale and discount will be applied accordingly.*

#### 4.1.3 Functional Requirements

*REQ-1: Full data of the item should be available.*

*REQ-2: Enabling of discount option should be available.*

*REQ-3: The change in the amount of each item should be seen if the sale option is enabled.*

### 4.2 System Feature 2 – Credits

#### 4.3.1 Description and Priority

*This feature attracts more customers which helps to increase the profit. The balance amount which should be given by the cashier can be converted into credit points if the customer wishes to. Those credit points can be used to avail discounts.*

#### 4.3.2 Stimulus/Response Sequences

*The cashier enters the user id into the system.*

*If there are no credits, the cashier asks the customer whether he/she wants to convert the balance amount to credit points.*

*If yes, the balance amount would be converted to credit points.*

*To avail discount using those credit points, the discount button which is in green colour at the end will be clicked.*

*The discount will be calculated according to the credit points owned by the customer.*

*The total amount will be changed according to the discount.*

#### 4.3.3 Functional Requirements

REQ-1: *The conversion of balance amount to credit points and credit points to discount amount should be correct without any errors.*

### 4.3 System Feature 3 – Sale Offer

#### 4.4.1 Description and Priority

*This feature attracts more amount of customers than the number of customers attracted by the discount feature. Sale offer for particular item can be enabled and disabled by this feature.*

#### 4.4.2 Stimulus/Response Sequences

*The cashier enables the sale option.*

*The change will be reflected in the amount section of every product in the list till the sale option is disabled.*

*The total bill is calculated accordingly.*

#### 4.4.3 Functional Requirements

REQ-1: *The change of amount of the particular product should be displayed correctly without any errors.*

## 5. Other Nonfunctional Requirements

### 5.1 Performance Requirements

*Calculation of the bill should be within 5 seconds.*

*There should not be any errors in the calculation of the bill and in the data stored in the database.*

## **5.2 Safety Requirements**

*Data should not be lost from the database.*

*If in case any damage occurs, there should be a backup database.*

## **5.3 Security Requirements**

*The transactions done must be safe and secure.*

## **5.4 Software Quality Attributes**

*The operation of the software must be fast.*

*There should be enough space to display everything clearly.*

*There should not be any errors in calculation of the bill.*

*The software should be maintainable for a long time.*

*The software should operate in any operating system.*

## **5.5 Business Rules**

*N/A*

## **6. Other Requirements**

*Further talks on how to handle generated reports from application are underway.*

*Colour scheme of software needs to be informed to Developer from GAH Co. beforehand.*

## **Appendix A: Glossary**

*Developers - The author of this document*

*Customer – SmallBazaar*

*Software – Billing Software*