

# Software Requirements Specification

## Group 2 : Bill Management

### 1 Introduction

#### 1.1 Product Overview

The Bill Managing System is a smart and modern billing solution that helps users to store the handwritten/printed bills, manage and generate them. Implementation of innovative features like OCR, multilingual and currency convertor.

### 2 Specific Requirements

#### 2.1 External Interface Requirements

##### 2.1.1 User Interfaces

Company Registration

**Name \***

Full Name

**Email \***

Email

**Mobile Number \***

Mobile Number

APPLY ONLINE

Fill in the below form to apply for Pvt. Ltd. online. It will take less than 5 mins. Your details are secured by SSL.

**Suggest names for your Private Limited (list two alternates, in order of preference).**

**What Is the Name of the Private Limited company you want to register? \***

Type in the name EXACTLY as you want it to appear.

**List two alternates, in order of preference \***

**Address of proposed Pvt. Co. \***

**State \***

Delhi

**Pin Code \***

+ Add Your Logo

Who is this invoice from? (required)

Bill To

Who is this invoice to? (required)

INVOICE

# 1

Date Aug 25, 2019

Payment Terms

Due Date

Balance Due \$0.00

Item	Quantity	Rate	Amount
Description of service or product...	1	\$ 0	\$0.00
+ Line Item			

Subtotal \$0.00

Tax 0 %

+ Discount + Shipping

Total \$0.00

Amount Paid \$ 0

### 2.1.2 Hardware Interfaces

A device with at least 512 MB of RAM. A device with a sufficient amount of unused non-volatile memory.

### 2.1.3 Software Interfaces

Operating System: We have chosen Windows operating system for its best support and user-friendliness. Browser: Any browser which supports HTML, JS, Web API and CGI Database: For storing user data we have chosen MySQL database.

### 2.1.4 Communications Protocols

For uploading of files to the database and retrieving the data from the database over the internet TCP protocols will be used. All types of web browsers are supported for communication.

## 2.2 Software Product Features

### Functional Requirements:

1. Header: The homepage explains the various features and successful features implemented in our website. The logo on the top left corner of the website will redirect the user to the homepage. This navbar is located on every page of the website and hence can be accessed from anywhere. The right side of the

navbar consists of the actual features of the website. Home, Generate Bills, Contact Us, Login and Signup, preferred language tabs will take us to the respective webpages of the website.

2. Footer: The footer consists of a home icon which takes the user to the homepage from any webpage. The FAQ section takes the user to the webpage where the admin has answered most of the questions which the user might have come across while using the website. The "terms and conditions" section makes sure the user of the website agrees to all the conditions of the web-application. The help section is a section for the user to send a personalized message to the admin through the web application. Copyright info and contact no. is provided at the end of every page.

3. Homepage: Some Important services provided are mentioned on the homepage. The user can get a good idea about the assurances that the web-application provides. That is followed by contact information to user so that the user can ask for help right away in case he doesn't understand the technical aspects of the web application. The top reviews section on the homepage gives the user the most helpful review that many such users have found useful, and chances are that the newly joined members might fancy these suggestions.

4. Generate Bills: This is the most important feature that helps a shopkeeper to list the items purchased and cost of each item and after confirming bills are generated with appropriate taxes and all 5. FAQ: The FAQ section is again accessed from the footer of the website, at any moment when necessary. Chances are someone else must have already had those queries, so such issues are already solved by the user so the user does not need to waste time waiting for someone to help him/her out. 6. Help / Contact Us: The help section in the footer will take us to a page where the user has to just provide the message in order to resolve the issue rather than opening another application typing the message and then sending an E-mail. This is a quick procedure. Below the helpline numbers, E-mail ids are provided in case needed. The address and location of the admin oce is also provided in case of special case queries.

7. Log In: Before generating bills and using other features a local shopkeeper has to log in to the application so that there can be a track of bills that a particular shopkeeper has generated.

8. Sign Up: Create an account in order to access the features of the website. An account is necessary for generating and storing bills

9. Language feasibility: For this application a shopkeeper can view it in either English or Hindi language according to the comfort. This is also one of the essential features of this web application.

## **2.3 Software System Attributes**

### **2.3.1 Reliability**

The user should have a strong internet connection whenever they want to use the application as the application is completely reliable on data provided by the server.

### **2.3.2 Availability**

The system will be available at all times, meaning the user can access it using a web browser, only restricted by the down time of the server on which the system runs. If the internet service gets disrupted while sending information to the server, the information can be sent again for verification. In case of database corruption, backup will be stored with the help of recovery system by the concerned authority.

### **2.3.3 Security**

Login is done through 3 way handshake protocol and also the user's password is stored in database after undergoing a hash function. So the original password stays only with the user and is never revealed to anyone else. Also all the bills generated can be accessed only by the user and the organization. Access to the admin and organizational logins is restricted to some specific login credentials.

### **2.3.4 Maintainability**

If too many bills are generated at a time it will be easy to maintain the entries if the data is backed up weekly or daily thereby increasing the feasibility of maintenance of the entries made by the user. If deletions or updates are supposed to be made by the users then backup can be easily accessed.

### **2.3.5 Portability**

As the entire application is web based, it is easily portable to any device the user wants it on. The new device should have web access, a supported OS and sufficient memory requirement. For removing the misuse of portability, a user verification is done each time a new device is used.

### **2.3.6 Performance**

There is no limit to the number of bills generated by the user or the company. The bill amount may exceed to any number provided that it is in measurable terms. The user may provide the details of the product on a single bill to any number of entries.

## **2.4 Database Requirements**

The user(local shopkeeper) enters the details in the User\_Registration, which will have a special user id as primary key which will be used to link with other tables in the database. A shopkeeper can have multiple bills. The data of the Bills will be inserted in the Bills Table. The user id should be present in the User\_Registration Table in order to issue bills.. It'll be a one to many relationship between User\_Registration Table and Bills Table. The Review Table is used to store and display the reviews of shopkeeper, hence user id is must. Particular

topics are given specific ids which are used to differentiate the topic and the Official Announcements on the web application that can be only done by the admin. Hence, the access to post in that topic id is restricted to the users. These are the necessary tables and their functions required for the proper functioning of the website.

User\_Registration: User id(primary key), Password, Name, Age, Area, Business\_Type.

Bills: User\_id(foreign key), Bill\_No(Primary Key), createdDate, Bill\_Items, Cost\_Each, Total;

Reviews: User\_id, Reviewid(primary key), Description;

Figure 1: Database Requirements

PRANAV BHAT | August 20, 2019

