Software Requirements Specification

for

Big Basket

Version 1.0 approved

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# Introduction

## Purpose

The purpose of this document is to build an online grocery store. The users(customers) can have all kind of grocery products delivered to their very homes with a lot of ease.

## Intended Audience and Reading Suggestions

The project is a prototype to the “Big Basket” system and it is restricted within the college premises. This has been implemented under the guidance of college professors.

## Product Scope

The main purpose of this project is to make customer’s shopping for food supplies and products very easy and time saving. The software will have a database showing all the products available with their respective prices. It will also display any offers available. The customer can even have their products delivered at a fixed date.

# Overall Description

## Product Perspective

Our project is the follow on of “Big Basket”. It will contain most of the features of this product with some new advancements.

## Product Functions

The product will allow for the online delivery of a large variety of grocery products at their market price to the customers. The customers can pay via cash on delivery, debit and credit cards or net banking. Registered customers can also use store currency as their payment method.

## User Classes and Characteristics

The system will support two types of user privileges, customer and employee.

The customers will have access to customer functions and the employees will have access to both customer and store management functions.

The customer should be able to do the following functions:

* Explore the store
* Add items to the basket
* Checkout using his desired payment system.
* Register his account.
* Registered users can apply coupons and use store currency.

The employees should be able to perform the following functions:

* Update the database according to items available or modified price or when a new item is added.
* Provide customer details like address and contact number to the delivery person.
* Login to their own accounts for notice, payments, etc.

## Operating Environment

* An internet browser or the software app for smart phones.
* Operating System: Windows
* We will need a database management system (SQL database).
* We will use python 3.5 as the coding language.

## Design and Implementation Constraints

* The database and SQL queries will have its constraints to preserve the database properties.
* Project will follow all copy rights and Indian cyber laws.

## Assumptions and Dependencies

* Things going according to plan.

# External Interface Requirements

## User Interfaces

* Front end: HTML, CSS, JAVASCRIPT
* Back end: SQL, PYTHON

## Hardware Interfaces

* Windows.
* A browser which supports CGI, HTML & JavaScript.

## Software Interfaces

Following are the software used for the Big Basket online application.

|  |  |
| --- | --- |
| **Software used** | **Description** |
| Operating system | We have chosen Windows operating system for its best support and user-friendliness. |
| Database | To save the user, items, purchase information, customer feedbacks and other records we have chosen SQL database. |
| Python 3.5 | To implement the project, we have chosen python language. |

## Communications Interfaces

This project supports all types of web browsers. We are using simple electronic forms for online purchase.

# System Features

This section provides requirement overview of the Big Basket software. Various functional modules that can be implemented by the system will be:

## Register

4.1.1 Description and Priority

A customer can register himself to use special coupons, discounts, store currency and various offers. This is of low priority as it is not mandatory to register to browse and buy products. Unregistered customers can also browse and buy products but will not have access to a lot of features.

4.1.2 Stimulus/Response Sequences

When an unregistered user attempts to use features exclusive for registered users, the system will prompt him to register first. After he is registered he can use the services.

4.1.3 Functional Requirements

REQ-1: A form will be available to the user which has to be filled up completely in order to register.

REQ-2: Some fields in the form cannot be left empty and there should be proper validation that the values input in the form are valid.

REQ-3: A database to store the data of all registered users.

## Login

4.2.1 Description and Priority

A customer can login with his username and password and have all the privileges of a registered customer.

4.2.2 Stimulus/Response Sequences

The home page contains a link that allows registered users to Login.

4.2.3 Functional Requirements

REQ-1: A form is given to the user where he enters his username and password.

REQ-2: The username and passwords are matched with the database entry of the user and if everything is correct he logs in, else an incorrect username/password message is displayed.

REQ-3: In case he forgets his password, there will be a link for password recovery which will be sent to the user’s email-id.

## Catalog

4.3.1 Description and Priority

Users can browse all the grocery products available according to its category. The products are categorized according to its types and it is of high priority that users can browse through all categories.

4.3.2 Stimulus/Response Sequences

The user can click on this button to see all the categories. He can then browse through each category. The user can click on a particular product on which its availability, price, offers and all features will be displayed.

4.3.3 Functional Requirements

REQ-1: The database of items along with its categories.

## Search

4.4.1 Description and Priority

Users can search his product in the search bar. This is of high priority that a search bar is there in the home screen.

4.4.2 Stimulus/Response Sequences

The user can type in his product in the search bar and the page will be redirected to a page containing that product and similar products.

4.4.3 Functional Requirements

REQ-1: The database of items along with its categories.

## Add to Basket

4.5.1 Description and Priority

Users can add the items they want to their basket.

4.5.2 Stimulus/Response Sequences

The user can click on add to basket button for that item and the item will be linked to his cart.

## Remove from Basket

4.6.1 Description and Priority

Users can remove any item(s) from his cart.

4.6.2 Stimulus/Response Sequences

The user can click on Remove from basket button for that item and the item will be removed from his basket.

## Checkout

4.7.1 Description and Priority

If the user is satisfied with his shopping, he can click on checkout to buy those items. He can use cash, credit or debit cards or net banking if he is unregistered. If registered he can also apply coupons and store currency. For net banking or by cards the security will be provided by third party like Pay-Pal.

4.7.2 Stimulus/Response Sequences

* If the user is unregistered, clicking the checkout button will display a form where the user has to provide his name, contact number, email-id and delivery address. On filling up the form he will be linked to the payment portal.
* If he is registered already, he will be directly linked to the payment portal.
* The items in his cart will be charged for.

4.7.3 Functional Requirements

REQ-1: The payment portal should be extremely secure.

REQ-2: An email will be sent to the user’s mail to verify the order.

## Print Bill

4.8.1 Description and Priority

On completion of the payment procedure a bill will be auto-generated displaying a detailed information both about the customer and the products he bought. The user can click on the print Bill button to print the bill or save it into a pdf form.

4.8.2 Stimulus/Response Sequences

On clicking this button, the bill is both printed/saved and also sent to the user’s mail.

4.8.3 Functional Requirements

REQ-1: The print bill button should be grayed out if the user has not ordered anything or if his transaction did not go through.

REQ-2: The bill should be saved to the system’s transaction database for future reference.

## Contact Us

4.9.1 Description and Priority

There shall be a link to a forum where registered users can comment any queries/feedbacks. There shall also be a contact number where users can ask their queries if needed. If an unregistered user wants to post something to the forum he will be asked to register first.

4.9.2 Stimulus/Response Sequences

The system admin shall be notified immediately when something is posted on the forum and he/she will get back to the user as soon as possible.

4.9.3 Functional Requirements

REQ-1: The admin shall reply to the query/feedback and a mail will be sent to the user thanking him for contacting “Big Basket”

## Update Profile

4.10.1 Description and Priority

If the user wants to update his contact number/email-id or address he can do it from this link.

4.10.2 Stimulus/Response Sequences

A form will be given to the user with the previous values. He can update any value he wants and confirm to save the changes.

4.10.3 Functional Requirements

REQ-1: This option is only available for registered users.

## Track item

4.11.1 Description and Priority

The user can track his ordered item through this link.

4.11.2 Stimulus/Response Sequences

If the user has successfully ordered an item he may track it through this link.

## Review Orders

4.12.1 Description and Priority

The admin can go through all the recent orders and can withhold or delay an order not delivered yet, if it is necessary.

4.12.2 Stimulus/Response Sequences

On logging in the admin has complete access over the orders placed.

4.12.3 Functional Requirements

REQ-1: This power is only for the admin.

## Update Items

4.13.1 Description and Priority

The admin can update the items database by adding/removing items or changing its availability or price.

4.13.2 Stimulus/Response Sequences

On logging in the admin has complete access to the items database.

4.13.3 Functional Requirements

REQ-1: This power is only for the admin.

## Recommend Items

4.14.1 Description and Priority

Our software will use a recommendation system to recommend items to the registered users based on his past shopping and priorities.

4.14.2 Stimulus/Response Sequences

Whenever a registered user shops a certain product it is registered in a database and the next time he logs in the recommendation system will recommend him similar products or new products of similar category.

4.14.3 Functional Requirements

REQ-1: We have a dataset of the shopping history of each registered user.

REQ-1: The recommendation system uses machine learning to classify what kind of products each customer has preference of.

## Customer Feedback

4.15.1 Description and Priority

It is of high priority that after the customer’s product is delivered he is sent a mail to provide feedback.

4.15.2 Stimulus/Response Sequences

After the customer’s product is delivered, he will be sent a mail asking him to provide feedback. There will be a link redirecting him to rate the services out of 10 and there will also be a field where he can provide additional feedback.

4.15.3 Functional Requirements

REQ-1: All the customer feedbacks will be stored in a database.

REQ-2: There will be an algorithm to categorize feedbacks into positive feedbacks and negative feedbacks. The negative feedbacks will be redirected to the admins.

## Big Basket Specials

4.16.1 Description and Priority

This is only for the registered users who have logged in to their accounts.

4.16.2 Stimulus/Response Sequences

This option will be grayed out for those who have not registered or logged in with their registered account. A message to ‘log in with registered account / sign up now’ will be displayed to them. Otherwise the registered user can have the following features:

* Express delivery: The user can click this button to have his product delivered very fast.
* Combos: There will be various combos available per week. The user can try them out.
* Big Basket Code and coupons: The registered user can use his big basket code and coupon to have a good amount of discount to his next purchase. Our software will periodically send big basket codes to registered user’s phone based on his purchase history. If his purchase rate falls down, there will be a greater discount offered to him.

4.16.3 Functional Requirements

REQ-1: The database of registered users information.

## Logout

4.17.1 Description and Priority

The user can log out of his account.

4.17.2 Stimulus/Response Sequences

On clicking the logout button, a confirmation will be displayed asking if he wants to logout. If the user says yes, he will be logged out of his account.

4.17.3 Functional Requirements

REQ-1: The user has to be logged in to log out. If he is not logged in this button will be gray.

# Other Nonfunctional Requirements

## Performance Requirements

The system will run on the web and a decent internet is needed for the user.

## Safety Requirements

There will be a backup of all the databases. There will also be a log for all activities of the system. The system will be protected against viruses too.

## Security Requirements

The system’s back end will only be accessible by admins and any transaction or transmission of data will be secured by encryption.

## Software Quality Attributes

* User friendly.
* Fast response.
* High availability even in situations of high traffic.
* Trustworthy software services.
* Great recovery in case of system crashes.

## Business Rules

Both registered and unregistered users can browse and buy items but features like coupons, discounts, store-credits are available only for registered users.

# Other Requirements

* All the databases of the system should have a double backup and the database should be normalized and maintained for smooth performance.
* The system should be available at all times and users can buy products at any time.