Software Requirements Specification

For

<Cookbook>

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1. **SUPPORTING INFORMATION**

**1. Introduction**

* + - **Purpose:**

The purpose of this document is to present a detailed description of the ONLINE COOKBOOK WEBSITE. It will explain the purpose and features of the website, the interfaces of the website, what the website will do, the constraints under which it must operate and how the system will react to external stimuli.

This document is intended for both the stakeholders and the developers of the system.

* + - **Scope:** The scope of cookbook is that you could store hundreds of recipes in one place and can download free recipes as pdf and if you create your account than you’re a member then you can also add your own recipes, edit recipes and delete recipes.   
      You can either make your recipes personal in your cookbook folder or publish recipes as public. One unusual feature is you can assign degrees of difficulty to recipes as well as add pictures against recipes.

You can plan a weekly menu for entire week by searching and adding recipes by specifying days.  
The system also contains a relational database that keep records of members of database, titles and other details in the database.

* + - **References:** IEEE Std 830-1998 - Recommended Practice for Software Requirements Specifications
    - **Assumptions and Dependencies:** It is assumed that the admin of cookbook system is already familiar with the website. It is also assumed that the users are familiar with the website. The operation of the website depends on changes being made in the Online Cookbook system to update system. The website link is never down but if some serious issues occur than link will be down at that time in which 99 percent of users are not expected to be on site.
    - **Overview of SRS:**

The next chapter, the general description section, of this document gives an overview of the functionality of the product. It describes the informal requirements and is used to establish a context for the technical requirements specification in the next chapter.

The third chapter, Requirements Specification section, of this document is written primarily for the developers and describes in technical terms the details of the functionality of the product.

Both sections of the document describe the same software product in its entirety, but are intended for different audiences and thus use different language.

**2. General description**

* **Overall description:** This section of the SRS should describe the general factors of **ONLINE COOK BOOK** that affect the product and its requirements. This Section does not state specific requirements. Instead, it provides a background for those requirements and makes them easier to understand.

This section usually consists of six subsections, as follows:

a) Product perspective;

b) Product functions;

c) User characteristics;

d) Constraints;

e) Assumptions and dependencies;

f) Apportioning of requirements.

* **Product perspective:**

This subsection of the SRS should put the product into perspective with other related products. If the product is independent and totally self-contained, it should be so stated here. If the SRS depends a product that is a component of a larger system, as frequently occurs, then this subsection should relate the requirements of that larger system to functionality of the software and should identify interfaces between that system and the software

A block diagram showing the major components of the larger system, interconnections, and external interfaces can be helpful.

This subsection should also describe how the software operates inside various constraints. For example, these constraints could include:

1. **System interfaces:**

System interfaces connected ONLINE COOK BOOK interfaces with each other respective of user interfaces and usage of system website.

1. **User interfaces:**

The logical characteristics of each interface between the software product (online cook book) and its users.

All the aspects of optimizing the interface with the person who must use the system*.*

1. **Hardware interfaces:**

This should specify the logical characteristics of each interface between the online **COOK BOOK** and the hardware components of the system. This includes configuration characteristics (number of ports, instruction sets, etc.).

1. **Software interfaces:**

This should specify the use of other required ONLINE COOK BOOK, and interfaces with other application systems (e.g., the linkage between an accounts receivable system and a general ledger system).

For COOKBOOK website the following should be provided:

* Name
* Mnemonic
* Specification number
* Version number
* Source

1. **Communications interfaces:**

This should specify the various interfaces to communications such as local network protocols for ONLINE COOK BOOK.

1. **Memory:**

This should specify any applicable characteristics and limits on primary and secondary memory (databases for ONLINE COOK BOOK), or hardware memory for online cook book.

1. **Operations:**

This should specify the normal and special operations required by the user of ONLINE COOK BOOK SYSTEM such as:

a) The various modes of operations in the user organization (e.g., user-initiated operations);

b) Periods of interactive operations and periods of unattended operations;

c) Data processing support functions;

d) Backup and recovery operations.

1. **Site adaptation requirements:**

These defines the requirements for online cook book system are following:

* Define the requirements for any data or initialization sequences that are specific to a given site, mission, or operational mode (e.g., grid values, safety limits, etc.);
* Specify the site or mission-related features that should be modified to adapt the software to a particular installation.
* **Product Functions:**

Sometimes the function summary that is necessary for this part can be taken directly from the section of the higher-level speciation (if one exists) that allocates particular functions to the software product. Note that for the sake of clarity:

**a)** The functions should be organized in a way that makes the list of functions understandable to the customer or to anyone else reading the document for the first time.

**b)** Textual or graphical methods can be used to show the different functions and their relationships.

Such a diagram is not intended to show a design of a product, but simply shows the logical relationships among variables.

* **User Characteristic:**
  1. This subsection of the SRS should describe those general characteristics of the intended users of the product.
  2. Including educational level, experience, and technical expertise. It should not be used to state specific requirements.
  3. All users’ needs to have minimal technical expertise (need to know how to use the mouse and keyboard)
* **General Constraints:**

This subsection of the SRS should provide a general description of any other items that will limit the developer options. These include

* + Regulatory policies
  + Hardware limitations (e.g., signal timing requirements)
  + Interfaces to other applications
  + Parallel operation
  + Audit functions
  + Control functions
  + Higher-order language requirements
  + Reliability requirements
  + Criticality of the application
  + Safety and security considerations.

**3. Requirement specification:** This section of the SRS should contain all of the software requirements to a level of detail sufficient to enable designers to design a system to satisfy those requirements, and testers to test that the system satisfies those requirements.

These requirements should include at a minimum a description of every input (stimulus) into the system, every output (response) from the system, and all functions performed by the system in response to an input or in support of an output. As this is often the largest and most important part of the SRS, the following principles apply:

* Specific requirements should be cross-referenced to earlier documents that relate.
* All requirements should be uniquely identifiable.
* Careful attention should be given to organizing the requirements to maximize readability
* **Functional Requirements:**reference : functional requirements of cookbook document
* **Non-functional requirements:**

1. The Online website will be on a server with high speed Internet capability.
2. The software developed here assumes the use of a tool such as Tomcat for connection between the Web pages and the database.
3. The speed of the cookbook connection will depend on the hardware used rather than characteristics of this system.

* **External interface requirement:  
   a) User interface:**

**1.** The Online Cookbook Website screen displays 3 main screens , one for admin second for members and third for those who are just visitors of website.

**2.** The system shall provide a help link from each displayed HTML page to explain how to use that page.

**3.** The Web pages shall permit complete navigation and recipe addition and selection using the keyboard alone, in addition to using mouse and keyboard combinations

**b) Hardware interface:**

No hardware interfaces have been identified.

**c) Software interface:  
 1-**First interface should be of login screenalong with create a new account

**2-** Creating new account takes to new webpage with signup form.  
**3-** A new html page is loaded in which the member/visitors of cookbook shall search for a recipe and download it to his/her machine.

**4-** By clicking on add recipe, on new webpage the member either adds a new recipe or can add existing recipe after editing and also can delete.

**5-**Members can approach to “join membership button” and a new webpage is loaded for amount transactions.

**6-** By clicking on menu planner, the member can plan entire week menu on new webpage by searching and adding recipes on specific days

**d) Communication protocol:**

**1-**The website shall send an e-mail message with attached recipe pdf file to the people who are not the member of website.

**2-** The website shall send and receive message on website’s “PERSONAL INBOX SECTION” to members of cookbook to discuss recipes and sharing items.

**3-** The website shall report any fake member that is sharing spreads vulgarity.

* **Performance requirement:**

**1-** The system shall accommodate hundreds of users during the peak usage time of website i.e. cooking time, with an estimated average session.

**2-** All recipes generated by the website’s html pages shall be fully downloadable in no more than 10 seconds over a 40KBps modem connection

**3-** The system shall display confirmation messages to users within 4 seconds after the user submits information to create an account or to join membership.

**4-** Website shall load in 5 seconds and further html pages shall load within 2seconds.

**5-** Website should be developed as a lightweight web app so that it can work on almost any platform even with slower internet connections.

**6-** Another performance requirement is the storage space. Higher storage space means more user and bigger workspace per user so higher the storage, better the performance.

**7-** Database of the system should handle at least a thousand of users at any periods.

* **Design requirements and constraints:**

1. New systems are often installed in environments that already have other systems. The other systems usually constrain the design of the new system.
2. For reasons of budget, schedule, or quality, an organization may wish to reuse some of existing html pages in the implementation of a new website.

* **Security requirements:**

1. Users shall be required to log in to the website for all operations except viewing a recipe.
2. The website shall permit only members who are having an account or membership to add, edit and delete recipes.
3. When joining membership all transactions via debit credit card that involve financial information shall be encrypted.
4. Passwords and contact number given by members while signing up shall be safe and hidden.

* **Quality attributes:**

**1-Availability:**

The website of online Cookbook shall be available to users on the corporate Intranet and to dial-in users 99.9% of the time between 5:00am and midnight local time and 95% of the time between midnight and 5:00am local time.

**2-Reliablity:**

If the connection between the user and the system is broken prior to a recipe being either added, deleted or updated, the website shall enable the user to recover an incomplete action.

**3- Modifiability:**

The website of online cookbook can be modify by admin. Admin can add, delete, update and save data of users, recipes and regular customers of website.

**4- Robustness:**

Robustness for this website can be defined by CRASH. System can be:

* Catastrophic (OS crashes/multiple tasks affected)
* Restart (task/process hangs, requiring restart)
* Abort (task/process aborts, e.g. segmentation violation)
* Silent (no error code returned when one should be)
* Hindering (incorrect error code returned)

1. **Adaptability:** The website is adaptable even if additional plugins or modules can be added at a later point.

* **Supporting Information**

**Supporting info related to 3.1:**

It includes how the website will work. What are interfaces of website?

1. Home Page
2. Registrations subsystem/visitors subsystem
3. Login subsystem
4. Demonstration subsystem
5. Tutorials subsystem
6. Settings subsystem
7. Recipes subsystem
8. Profile subsystem
9. User data

**Other information:**

* The software is designed such that it works even on systems having the minimum configuration.
* The data can be exported to the admin so as to make the system more portable