**Functional Spec**

# Project Information

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| **Project Name:** | Hakstock E-commerce Website |
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# 1. Introduction

## 1.1 Objective:

The purpose of this document is to provide in-depth details of the functionality of the Hakstock E-commerce Website. The document describes the overall description, system features, and requirements of the system in development.

## 1.2 Project Scope:

Hakstock is an e-commerce website devised for the purchasing of goods mostly notable electronic items, and clothing item for a cheaper, fitting price. The e-commerce website will allow any user to create an account to become a customer. The customer being a member will have access to certain discount deals. The website will allow customers to search, filter, select, and add goods to a shopping cart. Customers will be provided with a sufficient idea of what they will be purchasing based on the product description and also reviews from other customers. The website will also allow an individual with an admin account to manage the inventory with full create, retrieve, update and delete (CRUD) functionality with regards to the products stored in the database. Users will be able to receive confirmation email and shipping details after placing an order with us (Reference A).

## 1.3 Intended Audience:

The intended audience of this document are the Hakstock customers as well as the entire spring 2016 COMP 295 Systems Development class.

## 1.4 References:

* Reference A: Hakstock Project Scope
* Reference B: Hakstock Software Requirements Specifications Document.

## 1.5 Document Revision History:

|  |  |
| --- | --- |
| 2016/02/18 – v1.0 – Abdulhakeem Usman | Initial Creation. |
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# 2. Overall Description:

## 2.1 Product Perspective:

Hakstock is a new e-commerce website developed from scratch that would be available to anyone with access to a suitable Internet connection. It can be accessed using web browser such as Internet Explorer 8.0 or above, Mozilla Firefox, and Google Chrome.

## 2.2 Product Features:

Hakstock will perform a number of functions as listed below:

• Maintain records for many customers.

• A customer can be either a member or non-member.

• A customer has a username, password, email address and postal address.

• Anyone may sign up for a customer account.

• Allow any customer to become a member.

• Each product will have its own description on its functions and other important details.

• Allow customers and managers to log in and out of the system.

• Provide a shopping cart to add goods into.

• Member customers may enter a promotion code.

• Log/record each transaction completed.

• Allow admin to update product details such as price, description, images, etc.

• Allow admin to view transaction logs and email customers valuable information about product they ordered (Reference B).

## 2.3 User Classes and Characteristics:

The users of this application, based on their roles, are customers and the administrator (developer). These users are identified based on their experience and technical expertise.

1. **Customer:** The customers are individuals with shopping experience and are capable of navigating through a standard e-commerce application. A customer must possess basic understandings about computers and the internet. He or she should be able to perform the following functions using this system:
2. View and browse items on the webpage.
3. Add and delete items in the cart.
4. Check out the items from the application or continue shopping.
5. Sign-in/login using a username and password
6. View their account information.
7. **Admin:** An administrator is the developer of this application. An admin must have a basic understanding of computers and the internet as well as prior knowledge for using PHP scripting language and also a DBMS. The administrator is responsible for maintaining all the training documents required for the system. The administrator can perform the following functions:
8. **Add, update, and delete items from a database table:** Includes assigning sales tax for different states at the time of checkout, View and update customer transaction records.

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## 2.4 Operating Environment

Hardware Components

* Intel Core i3 1.9GHz Processor
* 4GB RAM
* 918 GB HDD

Software Components

* Windows OS
* Apache Web Server 2.4
* MySQL
* PHP 5.6.15
* JQuery 2.1, Ajax, JavaScript,
* HTML and CSS

## 2.5 Design and Implementation Constraints

* The developed system should run under any platform that contains a web browser which supports PHP, JavaScript and AJAX.
* The website will be developed with PHP; hence the user must have Apache installed for the website to function well.
* Connection to the Internet will be mandatory for the development of this website.

# 3. System Features:

## 3.1 Checkout Feature:

### 3.1.1 Description and Priority:

This feature occurs when the customer has successfully added items to his cart and is ready to purchase them. This feature is of High Priority.

### 3.1.2 Stimulus/Response Sequences

Assuming the customer has added his preferred item(s) to the cart, and is ready to finalize the purchase of the item(s), they proceed to click “PayPal Checkout” in shopping cart. The system proceeds to ask for the user’s PayPal information.

### 3.1.3 Functional Requirements

* PayPal integration (External Requirement)
* Shopping Cart Requirement (Reference)

## 3.2 Easy Navigation Feature:

### 3.2.1 Description and Priority:

This features provides users with the ability to easily navigate through products.

Priority Level = High.

### 3.2.2 Stimulus/Response Sequences

Browse: The user opens his browser and goes to the “Hakstock” web page. The website is launched. User scrolls to the menu option on top of the page and he chooses whatever Department option.

Search: The user opens his browser and goes to the “Hakstock” Web Page. The website is launched. User enters text in text box next to Search button and clicks on Search button. System displays the matching text products. User clicks on the desired link. User can navigate back to the earlier pages if wishes.

### 3.2.3 Functional Requirements

* Search Requirement.

## 3.3 Authentication Feature:

### 3.2.1 Description and Priority:

The system offers access to user only by validating the user with the unique username and password.

Priority Level = Medium.

### 3.2.2 Stimulus/Response Sequences

The user browses to the "Sign in" page. The user enters his/her username and password in the returning user section of the "Sign in" screen. The system validates the username and password (successfully) and displays the user's account information page.

### 3.2.3 Functional Requirements

* Login Requirement (Reference B)
* Register Requirement (Reference B)

## 3.4 Content Management Feature:

### 3.2.1 Description and Priority:

This feature provides all the key characteristics to the management of online sales.

### 3.2.2 Stimulus/Response Sequences

Assuming the admin is already logged into the website.

1. The system prompts the user to select one of the following two options:
   * Manage Categories
   * Manage Brands
   * Manage Users
2. If the user selects the “**Manage Categories**” option, the system prompts the user to Add a category or edit category, i.e., update or remove item.

2A. For the user to select the “***Add a new category***” option,

2a. The system prompts the user to select an appropriate parent category

2b. The user selects the appropriate parent category.

2c. The system prompts the user to enter the name of the category.

2d. The user keys in the requested item details and clicks “Add A Category”.

2e. The system updates the item in the selected category in the database.

2B. If the user wants to select “***Edit Category***” option,

2a. The system prompts the user to navigate to the appropriate item.

2b. The user navigates to the item that he wants to modify.

2c. The user either removes a category by clicking “Delete” or modifies a category by clicking “Edit”.

2d. The system updates the information in the database.

1. If the user selects the “**Manage Users**” option, the system prompts the user to select one of the following two options:
   * Add User
   * Edit User

3A. If the user selects the “**Add User**” option,

3a. The system displays the “Add new user” page to the user.

3b. The user enters the user details like name, address, etc and selects the access right (normal user/ administrator) of the user and clicks Submit.

3c. The system updates the new user details in the database.

3B. If the user selects the “**Edit User**” option,

3a. The system prompts the admin to search for the user.

3b. The user searches for the user he wants to modify.

3c. The system displays the user details to the admin.

3d. The admin modifies any of the user details like name, address, card details, access rights and clicks Update.

3e. The system updates the details in the database

### 3.2.3 Functional Requirements

* Admin Requirement (Reference B)

# 4. Requirements

## 4.1 Hardware Requirements:

* There are no specific hardware requirements, however since the website must run over the Internet, all hardware components (PC) require connection to the Internet

## 4.2 Software Requirements:

* The use and knowledge of PHP scripting language, Apache Web server and MySQL DBMS is required.

## 4.3 Database Requirements:

* This system should be designed to easily interface with most of the modern SQL databases that are ANSI SQL compliant most especially MySQL DBMS.

## 4.4 Performance Requirements:

* Performance requirements are dependent on the end-user’s connection to the Internet. On assumption with optimum internet connection:
* System login/logout shall take less than 5 seconds.
* Searches should return results within 10 seconds.
* Orders should be processed within 10 seconds.
* System should support multiple simultaneous users.

## 4.5 Security Requirements:

* The back-end servers are only accessible to authorized admin personnel.
* Users will be able to access only their own personal information and not that of other users.
* The system must automatically log out all customers after a period of inactivity.

# 5. Projected Project Timeline:

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| --- | --- | --- |
| **Milestone Date** | **Milestone Name** | **Milestone Description** |
| **Jan 28** | Project Scope Complete | Project scope for the e-commerce website is ready for submission and review. |
| **Feb 16** | System Requirements Complete | System requirements version 1.0 are approved and baselined so that the project can begin design and development. |
| **Feb 28** | Functional Specifications Complete | Functional Specifications document is created and ready for submission. |
| **March 17** | Program Flowchart  Complete | A graphical flowchart depiction of the website’s information is complete and the website UI is ready for design. |
| **March 18** | Website UI Design  Complete | The website’s user interface has been designed and is completed. |
| **April 20** | Website Development  Complete | An operational version of the website is developed and ready for end-user testing. |
| **April 21** | Website Testing | The operational version website is tested by random end-users and feedback is received for better improvement. |
| **April 22** | User’s Manual Generated | A user’s manual for the effective use of the website is created and reviewed. |
| **April 27** | Website Deployment | After passing the testing phase, the “improved” version of the website is ready for deployment. |