Software Requirements Specification

for

MW

Version 1.0 approved

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# Introduction

## Purpose

<~~Identify the product whose software requirements are specified in this document, including the revision or release number~~. Describe the scope of the product that is covered by this SRS, particularly if this SRS describes only part of the system or a single subsystem.>

This document will provide a detailed description of the e-commerce platform MW Version 1.0. The sections of this document will contain definitions and explanations of this system and its features and functionality, including its functional and non-functional requirements. This Software Specification Requirements (SRS) document will only cover the functionalities of systems and subsystems in MW Version 1. Further updates to the platform will be documented in future SRS documents.

## Document Conventions

<Describe any standards or typographical conventions that were followed when writing this SRS, such as fonts or highlighting that have special significance. For example, state whether priorities for higher-level requirements are assumed to be inherited by detailed requirements, or whether every requirement statement is to have its own priority.>

This document follows a hierarchical numerical format. Section headings are structured using a numerical notation system. Main topics are denoted with a whole number (e.g., “X.”), and subtopics use an extended notation (e.g., “X.X”). The first number takes the value of its parent section, and the second number indicates the subtopic’s sequential position. The levels of hierarchy are additionally represented with font size. Large font size indicates main topics while a smaller font size indicates a sub-topic.

Appendices are at the end of the document and have no numerical notation. The Appendices are denoted alphabetically and are the same font size as the main headers in this document.

## Intended Audience and Reading

<~~Describe the different types of reader that the document is intended for, such as developers, project managers, marketing staff, users, testers, and documentation writers~~. Describe what the rest of this SRS contains and how it is organized. Suggest a sequence for reading the document, beginning with the overview sections, and proceeding through the sections that are most pertinent to each reader type.>

This document is intended for the full-stack developer of the e-commerce platform MW, the instructor and teaching assistant for the Mississippi State University course CSE 6214: Introduction to Software Engineering, and users of the application that want in depth information regarding the software of MW.

## Product Scope

<Provide a short description of the software being specified and its purpose, including relevant benefits, objectives, and goals. Relate the software to corporate goals or business strategies. If a separate vision and scope document is available, refer to it rather than duplicating its contents here.>

## References

<List any other documents or Web addresses to which this SRS refers. These may include user interface style guides, contracts, standards, system requirements specifications, use case documents, or a vision and scope document. Provide enough information so that the reader could access a copy of each reference, including title, author, version number, date, and source or location.>

# Overall Description

## Product Perspective

<~~Describe the context and origin of the product being specified in this SRS. For example, state whether this product is a follow-on member of a product family, a replacement for certain existing systems, or a new, self-contained product. If the SRS defines a component of a larger system, relate the requirements of the larger system to the functionality of this software and identify interfaces between the two.~~ A simple diagram that shows the major components of the overall system, subsystem interconnections, and external interfaces can be helpful.>

MW is a new self-contained e-commerce platform. This platform is designed to fulfill the requirements of the Mississippi State University CSE 6214 course. The MW platform is to be a simplistic version of the e-commerce portion of Amazon. This product will not be used for commercial or monetary purposes. The MW platform is intended for use within Mississippi State University to fulfill the criteria to pass the CSE 6214 course.

\*Insert diagram\*

## Product Functions

<Summarize the major functions the product must perform or must let the user perform. Details will be provided in Section 3, so only a high level summary (such as a bullet list) is needed here. Organize the functions to make them understandable to any reader of the SRS. A picture of the major groups of related requirements and how they relate, such as a top level data flow diagram or object class diagram, is often effective.>

* Users can create an account with their email address.
* Users can log in and out of their accounts using their login credentials.
* Users that are classified as buyers can search, compare, buy, and return different products.
* Users that are classified as sellers can list, sell, and receive payment for their different products.
* Users that are classified as admins can approve/block new accounts and products and oversee the actions of the buyer and sellers.

## User Classes and Characteristics

<Identify the various user classes that you anticipate will use this product. User classes may be differentiated based on frequency of use, subset of product functions used, technical expertise, security or privilege levels, educational level, or experience. Describe the pertinent characteristics of each user class. Certain requirements may pertain only to certain user classes. Distinguish the most important user classes for this product from those who are less important to satisfy.>

There are three user classes for the MW platform. All the user classes below must have a Username and Password to access MW. Incoming users will have to create their own Username and Password with their email address before having access to the platform. The three classes below are under the assumption that the user already has an account:

1. Buyer- ability to search, compare, buy, and return products.
2. Seller- ability to list, sell, and receive payments for products.
3. Admin- ability to approve/block new accounts and products and oversee the actions of buyers and sellers.

All mentioned user classes are essential to the functionality of this platform. No user class is more important than another.

## Operating Environment

<Describe the environment in which the software will operate, including the hardware platform, operating system and versions, and any other software components or applications with which it must peacefully coexist.>

## Design and Implementation Constraints

<Describe any items or issues that will limit the options available to the developers. These might include: corporate or regulatory policies; hardware limitations (timing requirements, memory requirements); interfaces to other applications; specific technologies, tools, and databases to be used; parallel operations; language requirements; communications protocols; security considerations; design conventions or programming standards (for example, if the customer’s organization will be responsible for maintaining the delivered software).>

# System Features

<This template illustrates organizing the functional requirements for the product by system features, the major services provided by the product. You may prefer to organize this section by use case, mode of operation, user class, object class, functional hierarchy, or combinations of these, whatever makes the most logical sense for your product.>

## User Registration and Authentication

3.1.1 Description and Priority

This feature will allow for account creation and account access.

Priority: High

3.1.2 Stimulus/Response Sequences

**Stimulus**: A new user tries to log into the system.

**Response**: The system prompts the user to make a new account using an email.

**Stimulus**: An account user enters the correct username and password to log in.

**Response**: The system uses the username and password entered to grant the user access to their account.

**Stimulus:** An account user enters the incorrect username and/or password to log in.

**Response:** The system prompts the user to try again.

3.1.3 Functional Requirements

REQ-1: The system shall give fields for email, username, and password when creating a new account.

REQ-2: The system shall raise and error if emails and usernames are not unique to the system upon user registration.

REQ-3: The system shall only make accounts with usernames and passwords that have not been used in the system.

REQ-4: The system shall have a login page that requires the input of a username and password.

REQ-5: The system shall raise an error if a user inputs a username and password that do not match.

REQ-6: The system shall raise an error if the user inputs a username that does not exist in the system.

## Product Search

3.2.1 Description and Priority

This feature will allow users of the type buyer to search for products.

Priority: High

3.2.2 Stimulus/Response Sequences

**Stimulus**: A buyer types an existing item name into the search bar.

**Response**: The system shows the item with the exact name.

**Stimulus:** A buyer types in a word into the search bar.

**Response:** The system returns the products that fall within the searched word.

3.2.3 Functional Requirements

REQ-1: The system shall have a search bar for buyers to search for specific products.

REQ-2: The system shall return products that contain the searched word in the product name.

REQ-3: The system shall return a product if the searched word matches the product name.

REQ-4: The system shall return “No results” if no products match or contain the keyword.

REQ-5: The system shall return all products that fall in the searched category, if a category is searched.

REQ-6: The system shall only display items that have a quanity of 1 or more.

## Product Filtering and Sorting

3.3.1 Description and Priority

This feature will allow users of the type buyer to filter through products so they can compare similar products.

Priority: High

3.3.2 Stimulus/Response Sequences

**Stimulus**: A buyer selects (a) filtering option(s) and clicks ‘ok’.

**Response**: The system shows the products that fall within the filter(s).

**Stimulus:** A buyer selects a sort option.

**Response:** The products are rearranged based on the sort option selected.

3.3.3 Functional Requirements

REQ-1: The system shall allow buyers to filter through product.

REQ-2: The system shall contain filters for different categories and price ranges.

REQ-3: The system shall return a list of products that fall within the selected filter options when the user selects ‘ok’.

REQ-4: The system shall return “No results” if no products that currently fall under the selected filters.

REQ-5: The system shall give the option for buyers to sort products from “Highest to Lowest Price” and “Lowest to Highest Price”.

REQ-6: The system shall arrange products from “Highest to Lowest Price” if the user selects it.

REQ-7: The system shall arrange products from “Lowest to Highest Price” if the user selects it.

## Purchasing

3.2.1 Description and Priority

This feature will allow users of the type buyer to purchase products.

Priority: High

3.2.2 Stimulus/Response Sequences

**Stimulus**: A buyer selects “check out”.

**Response**: The system gives the buyer fields to fill out.

**Stimulus:** A buyer selects “complete order.”

**Response:** The system submits the order and notifies the seller .

3.2.3 Functional Requirements

REQ-1: The system shall allow buyers to filter through product.

REQ-2: The system shall contain filters for different categories and price ranges.

REQ-3: The system shall return a list of products that fall within the selected filter options when the user selects ‘ok’.

REQ-4: The system shall return “No results” if no products that currently fall under the selected filters.

REQ-5: The system shall give the option for buyers to sort products from “Highest to Lowest Price” and “Lowest to Highest Price”.

REQ-6: The system shall arrange products from “Highest to Lowest Price” if the user selects it.

REQ-7: The system shall arrange products from “Lowest to Highest Price” if the user selects it.

# Other Nonfunctional Requirements

## Performance Requirements

<If there are performance requirements for the product under various circumstances, state them here and explain their rationale, to help the developers understand the intent and make suitable design choices. Specify the timing relationships for real time systems. Make such requirements as specific as possible. You may need to state performance requirements for individual functional requirements or features.>

## Safety Requirements

<Specify those requirements that are concerned with possible loss, damage, or harm that could result from the use of the product. Define any safeguards or actions that must be taken, as well as actions that must be prevented. Refer to any external policies or regulations that state safety issues that affect the product’s design or use. Define any safety certifications that must be satisfied.>

## Security Requirements

<Specify any requirements regarding security or privacy issues surrounding use of the product or protection of the data used or created by the product. Define any user identity authentication requirements. Refer to any external policies or regulations containing security issues that affect the product. Define any security or privacy certifications that must be satisfied.>

## Software Quality Attributes

<Specify any additional quality characteristics for the product that will be important to either the customers or the developers. Some to consider are: adaptability, availability, correctness, flexibility, interoperability, maintainability, portability, reliability, reusability, robustness, testability, and usability. Write these to be specific, quantitative, and verifiable when possible. At the least, clarify the relative preferences for various attributes, such as ease of use over ease of learning.>

# Other Requirements

<Define any other requirements not covered elsewhere in the SRS. This might include database requirements, internationalization requirements, legal requirements, reuse objectives for the project, and so on. Add any new sections that are pertinent to the project.>

Appendix A: Glossary

<Define all the terms necessary to properly interpret the SRS, including acronyms and abbreviations. You may wish to build a separate glossary that spans multiple projects or the entire organization, and just include terms specific to a single project in each SRS.>

Appendix B: Analysis Models

<Optionally, include any pertinent analysis models, such as data flow diagrams, class diagrams, state-transition diagrams, or entity-relationship diagrams.>

Appendix C: To Be Determined List

<Collect a numbered list of the TBD (to be determined) references that remain in the SRS so they can be tracked to closure.>