



Mercado Gravy

Software Requirements Specification

Version 1.0



Revision History

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Software Requirements Specification

1. Introduction

This document includes the Software Requirements Specification for the application Mercado Gravy: a desktop application where people can offer products to other people and buy products from other people. The next sections of this chapter describe the purpose, scope and definitions of the application, followed by the references. Finally, the overview at the end of this chapter describes how the rest of the document is structured.

1.1 Purpose

The purpose of the Software Requirements Specification document for the application Mercado Gravy is to give a detailed description of how the application functions. Firstly, this is done with an overall description to get an overall understanding of the application and later, the document will zoom in on the more concrete aspects, specific requirements. The specific requirements will clarify all aspects for the development of the application. Also, it will explain the design constraints and other non-software related requirements for the application to be able to provide a complete and comprehensive description of the requirements for the software application. Important to consider when reading the document is that the document is a proposed first version of the system to a potential customer.

1.2 Scope

The application Mercado Gravy is a desktop application where people, users of the application, can offer and buy products. An interface is built where a potential buyer can search for the products he/she likes. Searching for a products can be done in a specific product category which are made filters. These products are placed on the application and on one or multiple categories by sellers.

The application is managed by multiple administrators. An administrator keeps the app in a good condition and is able to remove products, remove users and to adjust the product categories.

1.3 Definitions, Acronyms, and Abbreviations

The table below shows an overview of the terms used in this Software Requirements Specification document with their corresponding definition.

Term	Definition
User	Both a buyer or a seller
Buyer	A person who potentially wants to buy a product
Seller	A person who potentially wants to sell a product
Administrator	A person who manages the application
Product	An item that can be bought or sold with the help of the application

1.4 References

IEEE Computer Society. Software Engineering Standards Committee, & IEEE-SA Standards Board. (1998). IEEE recommended practice for software requirements specifications. Institute of Electrical and Electronics Engineers.

1.5 Overview

To be able to create a complete Software Requirements Specification document, Chapter 2 will provide an overall description of the software application Mercado Gravy. It will describe the general factors that are of great importance for the application; the product perspective, product functions and user characteristics are described, but also the constraints, assumptions and dependencies as well as the requirements subsets are discussed. Next, chapter 3 will discuss the specific requirements. The specific requirements that are discussed are: functionality, usability, reliability, performance, supportability, design constraints, on-line user documentation and help system requirements, purchased components, interfaces, licensing requirements, legal notices, and applicable standards. Finally, chapter 4 will provide the supporting information of this document.

2. Overall Description

2.1 Product perspective

Mercado Gravy is an online desktop application for buying and selling products. The application must be available to users who have the intention to buy or sell something with the help of the application Mercado Gravy. Therefore, the application should function correctly in Windows, Macintosh, and Linux. There are no hardware or software requirements included for users that want to use Mercado Gravy.

2.2 Product functions

Mercado Gravy will provide a number of functions; each is listed below.

- Allow any user and administrator to log in and log out of the system
- Allow seller to place a product in the system
 - o A product has a name, description and product category
 - o Allow seller to add a photo of the product, a target price and his preference for sending the product or let the buyer pick up the product.
 - o Allow seller to update the name, description and product category when the item is placed
 - o Allow seller to delete the product
- Allow user to search for a product
 - o Allow user to search in a product category
- Show a listing of products that match a search term
- Allow buyer to buy a product if it is in stock
- Allow buyer to make a question
- Allow seller to respond a user's question
- Allow administrator to delete a product place by a seller
- Allow administrator to delete a user out of the system
- Allow administrator to update and add product categories

2.3 User characteristics

A (potential) user of Mercado Gravy is any person that has access to the Internet and wants to sell a second hand product or wants to buy a second hand product.

2.4 Constraints

Constraints are listed on the Vision document, section 6.

2.5 Assumptions and dependencies

A dependency is that we have assumed that the application will function on a working web with an Internet connection that allows the system to perform actions possible in the system. Furthermore, we have assumed that all users have the basis knowledge of operating on a computer and running an application.

Assumptions:

- A user can try to login as often as he/she wants
- An administrator cannot be a buyer or a seller
- An user cannot edit their account information

3. Specific Requirements

The software requirements are listed below.

- Login and logout: All users and administrators need to have the possibility to login or logout from the application. A field for the user name, a field for the password and a the button to confirm the login need to be included in the interface. For login out, the interface needs a logout button.
- Create a product: A seller needs to be able to create a new product. The screen for uploading needs to have fields for mandatory product information and optional product information. The mandatory fields are name, description and product category. The optional fields are the target price, a checkbox whether the seller prefers that the product is picked up at a location or of that the sellers sends the product to the buyer, and the possibility to upload a photo. Created products can be deleted.
- Manage products: A seller needs to be able to manage his product(s). A seller needs an interface with an overview of his products. A modify button needs to be included to make changes to the product and a delete button needs to be included to delete a product.
- Searching for a product: A potential buyer should be able to type the product he is looking for into a field. Also a potential buyer should be able to search in specific categories with the assistance of filters.
- Product list: After a potential buyer entered a search term, the system should show a list of products similar to the search term. With the assistance of filters, it should be able for the buyer to sort and filter the products at their target price, product category, the pickup or sending preference of the seller and whether the products includes pictures.
- Cart adding and checkout: after finding a desired product, the potential buyer can add it to a cart and go ahead with payment or continue shopping. When the buyer wants to make the purchase, he shall select the payment method (cash or credit) and the shipping options (pick up in a specific location or by mail).
- Asking and answering questions: a potential buyer can ask questions regarding a product and the seller can answer them.

3.1 Functionality

The system should:

- Let users create and exhibit categorized products
- Provide a shopping cart with adding and removing options

- Notify users about purchases made
- Communicate with users via notifications in the app and via email
- Allow credit and cash payment options
- Allow different shipping options
- Provide a search engine
- Provide Customer Support
- Provide promotions
- Implement CRUD system: the functionality of the database is based on the CRUD (Create, Read, Update and Delete) model, which are the four basic functions of the persistence of Databases.

3.2 Usability

3.2.1 *Normal user becoming productive*

The required training time for a normal user is one day.

3.2.2 *Power user becoming productive*

The training time for a power user to become productive at particular operations is 4 days.

3.2.3 *Uploading a product*

The average time to upload a product is 5 minutes.

3.2.4 *Searching a product*

The average time to search for a product is 2 minutes.

3.2.5 *Comparing products*

The average time to compare similar products is 15 minutes.

3.2.6 *Buying a product*

The average time to buy a product is one day.

3.3 Reliability

3.3.1 *Availability*

98% of the time the application should be available.

3.3.2 *Mean Time Between Failure (MTBF)*

2 months.

3.3.3 *Mean Time To Repair (MTTR)*

12 hours.

3.3.4 Maximum Bugs or Defect Rate

4 bugs/KLOC.

3.3.5 Bugs or Defect Rate

- Minor bugs: front end bugs, for example a non functioning button on the login.
- Significant bugs: not having enough space on the database.
- Critical bugs: complete loss of data or a complete inability to use certain parts of the system's functionality.

3.4 Performance

3.4.1 Response time for a transaction

6 seconds.

3.4.2 Throughput

100 transactions per second.

3.4.3 Capacity in number of customers

100.000 customers.

3.5 Supportability

The source code developed for the desktop application Mercado Gravy shall be maintained using a configuration management tool. After the desktop application is sold, we will offer one year of technical support. Additions support can be offered on a weekly, monthly and half-yearly basis.

3.6 Design Constraints

3.6.1 Keyboard codification

The keyboard codification implemented its adapted only to the ASCII characters.

3.6.2 Internet connection

Needed for the application to access to the database.

3.7 On-line User Documentation and Help System Requirements

As the concept is an application, the system will guarantee a user manual for guidance.

3.8 Purchased Components

Not Applicable.



3.9 Interfaces

There are different types of interfaces that are supported by the application Mercado Gravy: user interfaces, hardware interfaces, software interfaces and communications interfaces.

3.9.1 User Interfaces

Through the user interface for the application (GUI) a user should be able to search an item with the help of a toolbar and also a user should be able to search in specific categories with the help of filters.

The application also includes an interface where the user can see their own profile. This includes an overview of the products published by him on the application.

3.9.2 Hardware Interfaces

A computer with a keyboard, a mouse and a monitor is needed.

3.9.3 Software Interfaces

Mercado Gravy app can only be executed on a system with an installed Java Virtual Machine. At the same time, the application requires Software Interface, API, with a Data Base, to store all necessary data. More over, we will depend on external payment services with developed software interfaces, such as Mercado Pago's API.

3.9.4 Communications Interfaces

The application Mercado Gravy will use the HTTP protocol for communication over the internet.

3.10 Licensing Requirements

Not applicable

3.11 Legal, Copyright, and Other Notices

Not applicable

3.12 Applicable Standards

Not applicable.

4. Supporting Information

The table of contents is located at page 2, and a glossary is located at page 3, on section 1.3.