
Rasti & Co.

Kaufen
Software Requirements Specification

Version 1.0



Revision History

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Software Requirements Specification

1. Introduction

The main aim of this document is to conceive the extent of “Kaufel” desktop application and all it’s provided operations.

1.1 Purpose

The purpose of this document is to give a detailed description of the requirements for the “Kaufen” desktop application. It will illustrate the intention and complete declaration for the development of software application. It will also explain system constraints, interface and interactions with external programs. This document is primarily intended to be proposed to a customer for its approval and a reference for developing the first version of the system.

1.2 Scope

The “Kaufen” desktop application is an interface between sellers and buyers.

The users of this application can find products using filters and interactive search engines. Once they find the desired product they are able to add it to their shopping cart and proceed with the payment. For each payment the application provide multiple methods to complete the transaction (credit cards, cash payment, etc).

The sellers can publish products into a category. This publication must contain a description, a photo gallery and a fixed price. In addition, they have the possibility to modify or delete their publications.

Furthermore, the software requires internet connection to access the database which have both users and product information.

1.3 Definitions, Acronyms, and Abbreviations

Buyer	Someone who want to buy a product.
Seller	Someone who want to sell a product.
User	Both buyers and sellers.
Publication	Set of information, photos, description, price and stock.
Product	Something that can be sell.
Cart	A list of product ready to buy

1.4 References

IEEE. IEEE Std 830-1998 IEEE Recommended Practice for Software Requirement Specifications. IEEE Computer Society, 1998.

1.5 Overview

2. Overall Description

This section will by an overview of the whole subsystem. The software will be explained with the intention of show its interaction with the users and the database. Also we will show its availables functionalities for users and system administrators. At last, we will show the technical specification about the Usability, Reliability, performance and constraints.

3. Specific Requirements

- Product searching: the buyer will be capable of search for an individual product if and only if he or she was logged in before realize this action. The searching also will be assisted by a filter.
- Product list: after the search was executed the system will show a similar products list which will be sorted by lower price, pick up location and seller rating as the user prefer.
- Product selection, cart adding and order confirmation: Once the buyer find a product which is interested to buy he or she will be able to add the product to a cart and proceed with the payment or continue searching more products. inside the cart environment the buyer can confirm the order and

select the payment method which must be credit or debit card, cash in the pick up location or a wire transfer, also the system must have the option to reserve the product.

- Creating a publication: A seller will be able to create, modify and delete a new publication using an upload screen which must have the following information:
 - Product name
 - Characteristics
 - Stock
 - Photos
 - Comments and rating
 - Pick up location
 - Price
- Seller sign-in :A seller can create, modify and delete him or her account in a sign in interface which must have the following information:
 - Seller name
 - Seller address
 - Seller Rating
 - Seller Photos

Also the interface must have:

- A modify button
- A save button
- A delete account button

3.1 Functionality



Figure 1 -Block Diagram.

The Kaufen software implements a CRUD system (Create, Read, Update and Delete) to manage the Database.

The user software contemplates three users which have different sets of allowed actions as are explain in the following sections:

Buyer: This endpoint has the ability to create the Purchase Objects in the database which can be interpreted as a record containing the quantity, price, buyer_id , seller_id, date and time of the purchase and a transaction identification.

Seller: This endpoint is granted the ability to create, modify and delete publish items of his ownership. The published items will have a brief summary, price, title, photos, stock and the associated seller with all its contact information.

Admin: This endpoint is intended for supervision and item corrections as the admin is granted the ability to create, delete and update publish items, buyers and sellers. With this, the user is able take complete control of the system.

3.2 Usability

- The required training time for a normal users is an average of five days.
- The typical time to upload a publication is 5 min.
- The typical time to buy a item is 3 min.
- The typical time of search is 8 min.

3.3 Reliability

- Availability: 96% of time available (hours of use, maintenance access and operations).
- Mean Time Between Failures (MTBF): 1 year.
- Mean Time To Repair (MTTR): 18hs.
- Accuracy—specifies precision (resolution) and accuracy (by some known standard) that is required in the system's output.
- Maximum Bugs or Defect Rate: 3 (bugs/KLOC).

3.4 Performance

- Response time for a transaction: 3 seconds.
- Throughput: 100 transactions per second.
- User capacity: unlimited.

3.5 Supportability

The Kaufen desktop application will have a technical support and an online help desk system for a period of six months after-sales. Further support can be offered for a reasonable monthly based plan.

3.6 Design Constraints

The system have an only constraint witch is Internet Connection. The Internet Connection allow the Kaufen Desktop Application to access remotely to the database system.

3.7 Online User Documentation and Help System Requirements

The users can access by pressing F1 key to a online manual with a section of common and frequently asked questions. If this information is not of any help the online help desk will be waiting for any questions.

3.8 Purchased Components

N/A

3.9 Interfaces

3.9.1 User Interfaces

The GUI of Kaufen desktop application presents a toolbar and a search bar that allow user to entry a specific filter query to the database. In addition, the user interface provide a user profile and the users can modify their own personal information such as nickname, first name last name and sex.

3.9.2 Hardware Interfaces

The Kaufen desktop application require a personal computer with monitor and keyboard or a laptop.

3.9.3 Software Interfaces

The Kaufen system only need a operative system based on UNIX such as Linux or OS X.

It not work on embedded systems nor will it work with MD-DOS based systems such as Windows.

The HTTP and Email APIs will be used from the standard library and for database management a Postgres client will be used. The http server will make used of a REST API.

The Payment Transaction will be left to a third party service such as PayPal for convenience and reliability, an external API provided by the same service will be used for all communications with it.

3.9.4 Communications Interfaces

The Kaufen software will use HTTP protocol for all communications with servers.

3.10 Licensing Requirements

Rasti & Co will provide a public licence for the open source Kaufen Desktop Application.

3.11 Legal, Copyright, and Other Notices

N/A

3.12 Applicable Standards

The Kaufen app was designed applying the patrons technics for its development.