
minniE



**Mini EBAY
Software Requirements Specification
For An Electronic Trading System**

Version <1.0>

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Software Requirements Specification	Date: 11/01/2022
First Draft	

Revision History

Date	Version	Description	Author
11/01/2022	1	<ul style="list-style-type: none"> Purpose, Scope Definition, Acronyms, and Abbreviations References and Overview 	Nikhil Prajith Kumar
11/01/2022	1	<ul style="list-style-type: none"> Use-Case Model Survey Assumption and Dependencies 	Namgyal Thily
11/01/2022	1	<ul style="list-style-type: none"> Use-Case Model Reports Supplementary Requirements 	Angela Wang, Choeden Dolma
11/01/2022	1	<ul style="list-style-type: none"> Supporting Information 	Choeden Dolma

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Software Requirements Specification

1. Introduction

1.1 Purpose

The goal of the Software Requirements Specification is to provide a thorough explanation of an Electronic Trading System (minniE), including all of its features such as from trading, and selling to buying. This report will clarify the project's development concepts and provide a general description of the project. The project's use-case model, use-case report, system requirements, specifications, and any assumptions or dependencies that were applied or made throughout the entire project are also included in this report.

1.2 Scope

An Electronic Trading System can be accessed by guest users, registered users, managers, sellers, and buyers. The main goal of this web-based electronic trading system is to provide people with an easy method of viewing and transacting. This web-based application will allow clients to view several home goods and amenities, which clients can bid for and purchase. The homepage with suggested goods and popular deals recommendations, the search box to look for particular items, and user profiles for all members, which allow users to keep track of their activities on the service, are some elements that will make the service easier to use for our customers. SUs, GUs, Ous, sellers, buyers, and managers are among the group's members. The site bears responsibility for clients, sellers, and buyers because clients may send complaints about suspicious items or compliments about items with very good prices and quality. The program also incorporates a warning system with penalties for inappropriate behavior. Considering the service has a range of users, each user group will have its own user experience. The use case model survey shows several functionalities for various users.

1.3 Definitions, Acronyms, and Abbreviations

Terms/Acronyms/Abbreviations	Definition
ReactJs	“React is a free and open-source front-end JavaScript library for building user interfaces based on UI components. It is maintained by Meta and a community of individual developers and companies.”
NextJs	“An open source web development framework created by Vercel enabling reach-based web applications with server-side rendering and generation of static webpages.”

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TailwindCSS	A simple to use open source CSS framework that makes it quicker and easier to maintain the code of the application.
JavaScript(JS)	"Is a programming language that is one of the core technologies of the World Wide Web, alongside HTML and CSS. As of 2022, 98% of websites use JavaScript on the client side for webpage behavior, often incorporating third-party libraries."
Cloud Firestore	"Cloud Firestore is a flexible, scalable database for mobile, web, and server development from Firebase and Google Cloud."
Super User(SUs)	A user that manages all the other users, processes items, and collects transaction statistics, for e.g. managers.
Ordinary User(OUUs)	Regular users with an account with the online electronic trading system with the most features available to interact.
Guests(GUs)	Non-registered visitors can view the home page and interact with the online electronic trading system with limited features.

1.4 References

1. Google. (n.d.). Firebase documentation. Google. Retrieved from <https://firebase.google.com/docs>
2. Meta and Community. (n.d.). React.js Documentation. Retrieved from <https://reactjs.org/docs/getting-started.html>
3. Vercel NextJS. (n.d.). Next.js Documentation. Retrieved from <https://nextjs.org/docs>

1.5 Overview

The following sections of the documentation go through the use-case and capabilities of the software as a whole. The part on the detailed overall description contains the use-case model survey, which is made up of succinct descriptions of all use cases as well as pertinent diagrams and linkages. The Specific Requirements section explains the use-case reports and additional requirements, which correspond to both functional and non-functional requirements.

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2. Overall Description

2.1 Use-Case Model Survey

Users	Roles
Super User (SUs)	A user that manages all the other users, processes items, and collects transaction statistics.
Ordinary Users (OUs)	A registered user that is approved by a super user, is able to have access to everything a guest user is able to access, manage their account, withdraw or deposit money in their account, buy/sell items, and file complaints/grade other ordinary users.
Guest Users (GUs)	Unregistered users that are visiting the website, are able to browse/search available items, report to super users about suspicious items, and apply to become ordinary users.

Homepage:

Everyone that first enters the website will be sent to this page until they have logged in.

Search Bar: This feature is to search items that are available and present in minniE's database, it will be available for everyone that visits the site, and the items would be loaded on the homepage.

Popular Items: This feature will show the top 4 most popular items on the homepage for the customer to see.

Today's Deals: This feature will show 4 of the items that have deals on their prices on the homepage for the customers to see.

Holiday Specials: This feature will show 4 items that have a discount based on the holiday, they will show on the homepage for the customer to see.

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Login Page:

This page will be shown when the user clicks login on the homepage, the user can either log in or sign up, this depends if the user already has an account or is a guest that wants to become a registered user.

Login: This function is for already registered users (super users and ordinary users), they will be able to log into their account with their username and password. When logging in there will be two outcomes, either they succeed in accessing their account or the user inputs the wrong username/password, an error message will be printed, and the user would have to enter their correct login information. Each of the users will have access to different permissions based on the accounts they use.

Register: This function will be for guest users that have not registered for an account. They will be required to put in their information (such as name, email, and password) to create an account. This will then be sent to the super users for approval. This feature will also be for users that want to make a new account, and for users that were blacklisted/blocked, and the application will be sent to the superuser for approval.

User Profile/My eBay: Ordinary Users: This is where the ordinary users will be able to view their orders, view orders that they have bid on, purchase history, complain/rate past orders, they can add money to their accounts, look at their wishlist, and submit items to sell.

Super Users: This is where the super users will be able to check on applications for becoming ordinary users, applications for items to sell, check complaints that were made, check on disputes between sellers and buyers, and check on transaction statistics.

Complaints page:

File Complaints: This function will be where the guest user can report an item, where the ordinary user can file a complaint on an order.

View Complaints: This function will be for ordinary users to view their complaints on orders.

Dispute Complaints: This is where the seller and buyer will be able to dispute their complaints.

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Manage Complaints: This is where the super users are able to see all the complaints/reports and the super users will be able to make a decision on what to do after reading about the complaint/report, such as giving a warning and removing the item to prevent others from purchasing the product.

Purchase Page:

Cart: This function will be for the user to see the items that were added to their cart and the user can proceed to check out, but the user will be required to be logged in. If they are not logged they would be taken to the login page. This page will also show the subtotal of the items in the cart.

Checkout Page: After clicking checkout the user would be redirected to the checkout page, this page will be where the user will be required to enter their address, and payment method, they will also be allowed to review their order, and they will be able to choose their delivery method, and they can proceed to place their order. The user would be required to have enough money in their account in order to check out.

Super User's Homepage:

This is the homepage of Super Users after they have logged in to their account.

User Applications: This is where the super users will be able to see the applications of the unregistered customers, users that want to create a new account, and users that have their account blocked. Here the super user will be able to reject to accept a user.

Selling Applications: This is where the super user will be able to see the applications that request to sell something, this is where the super user will also be able to reject or accept the application to sell a certain item.

Complaints: This is where the super user will see all the complaints and reports made and after clicking on it they will be sent to the complaints pages and be allowed to make a decision after reading about the complaint.

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Product Page:

When clicking on an item, it would lead them to this page where they can see the information about the product. This page is accessible by guest users and ordinary users, but guest users can only see the product information, and are not able to bid or add items to the cart.

Add Item To Cart: If the OUs like the product they clicked on they are able to add that to their cart.

Bid on Items: This function is where the OUs can place a bid on an item they are interested in, but they would need to have enough money in their account in order to bid.

2.2 Assumptions and Dependencies

This project depends on the use of false information for the items. Additionally, we will be storing and updating our data on a Google Firebase database. Additionally, we require React JS libraries to make sure that our code works and communicates effectively with the cloud database. Some assumptions we can make are faking the purchasing/checkout process to see if the system passes through, and if it doesn't we have the complaint/report filling where users/clients can always leave feedback, where managers can take action.

3. Specific Requirements

3.1 Use-Case Reports

[Guest User]

Use-Case: Apply to become an ordinary user

Description: Guest users/unregistered users/customers will have to apply to become an ordinary user, they would have to be approved by the super user.

Use-Case: Browse/Search Items

Description: Guest users are able to browse/search items that are available in minniE, but they are not able to purchase anything.

Use-Case: Report An Item

Description: The guest users are able to report a suspicious item to the super user.

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[Ordinary User]

Use-Case: Browse/Search Items

Description: The ordinary user is able to browse/search items that are available in minniE.

Use-Case: Add Items to Cart

Description: The user is able to search for items and see which item they like and place that item into the cart.

Use-Case: Make a Purchase

Description: The user is able to buy the items in their cart as long as they have enough money in their account.

Use-Case: Deposit or Withdraw money From their account

Description: The user is able to go into their account to deposit/withdraw money from their account, they will need to provide a payment method/card number so the system can allow them to withdraw/deposit.

Use-Case: Review Past Orders

Description: The user is able to look at their transaction history, which includes the items they ordered and the total cost of the order.

Use-Case: Bid On An Item

Description: The user submits a bid on an available item, but the seller OU will be the one to decide who he sells the item to.

Use-Case: Choose Who Wins the bid

Description: The seller OU is able to choose to go through with the transaction or choose another buyer that did not win the bid, but they would have to provide a reason.

Use-Case: Sell Items

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Description: The user is allowed to sell items, but they would be required to submit the information of the item to the superuser, and it has to be approved before it is shown on minniE as a product to sell.

Use-Case: File a Complaint/Rate The OU

Description: The User is able to file a complaint about a certain product they have purchased from another OU if there was a problem with the purchase. They are also able to rate the OU based on how satisfied they were with the purchase from 1 to 5, 1 being the worst and 5 being the best.

Use-Case: Change Their information

Description: The User is able to change their name, password, address, phone number, and credit card information that is connected to their account.

[Super User]

Use-Case: Process Applications

Description: The super user is able to approve or reject guest users that want to apply to become ordinary users.

Use-Case: Process Items

Description: The super user is able to process items that ordinary users have submitted intending to sell.

Use-Case: Send Warnings

Description: The super user is able to send warnings to ordinary users that have a rating lower than 2(with at least 3 evaluators) and those that receive 2 complaints.

Use-Case: Remove Ordinary Users From System

Description: The super user is able to remove an ordinary user from the system if they received 2 warnings and they are able to remove an ordinary user from the system at any time as long as they are justified.

Use-Case: Settle Disputes

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Description: If there is a complaint made the super user is able to dispute the complaint and give warnings/removals accordingly.

Use-Case: Collect transaction statistics

Description: Super users can collect transactions for a certain period or on a certain ordinary user.

3.2 Supplementary Requirements

Register: In order to come to an OU the guest user would have to provide a valid email address, one that was not previously used, if the email has an account associated with it, the system would print out an error message saying that the email is already in use.

Placing Order: For the order to be placed the user's account is required to have enough money, if they do have enough money the order will be placed and it would bring the user to a thank you page, but if the user does not have enough money in their account, the system would print out an error message and the order would not be placed.

Biding: In order for the bid to successfully go through the user would need to have enough money inside their account, if there is enough money the bid would go through, but if there isn't enough money in the user's account, the system would print out an error message, and the bid would not go through.

Complaints/Reports: If the OU has received a report/complaint, they would be sent a message about it, they will be able to dispute the claims in the report or complaint, and the SUs would be required to look at the claim and investigate if the claims stated in the report/complaint is true, and make a decision of removing the item or giving a warning. Once the OU received 2 warnings they would be removed from the system/blacklisted.

Blacklisted: Those users that are blacklisted would be sent an email, if not notified in their account dashboard, that their account has been blocked and the money in their account would be refunded to their credit card that is linked to their account.

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https://lucid.app/lucidchart/a8404025-c3f0-43f5-98b6-077ff5faf8c6/edit?invitationId=inv_212937eb-5972-4bd3-970f-b87d13b786ac&page=0_0#

