Fall 2025

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….

Software Requirements Specification

Executive Summary

# Background

# Description

## Company Value Add

## End-User Value Add

# Scope

## What is Included

## What is Not Included

# Justification

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Section 1

# Document Authors

Angela Chua, Minh Thu Lu, Aaron Ngo, Jackey Zhou, Trung Kien Phan

# 1.2 Document Revision History

|  |  |  |
| --- | --- | --- |
| **WEEK** | **DATE** | **Revisions** |
| 1 | Sept 18, 2025 | * Section #1 * Section #2.1 |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
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# Document Purpose

To keep track of software requirements and deliverables for HobbySwap.

# Audience

Project Team, Stakeholders, Investors, etc.

# 1.5 Group Agreement

### Team # 1

### Project Title

HobbySwap

### Project Time Frame

The semester 5 and 6 (not counting co-op)

### Team Members:

* Angela Marie Tagudin Chua
* Jackey Zhou
* Minh Thu Lu
* Trung Kien Phan
* Aaron Ngo

### Team Leadership

Aaron Ngo

### Team Functions/Roles

* Angela Marie Tagudin Chua: Frontend Developer
* Jackey Zhou: Business Analyst
* Minh Thu Lu: UI/UX Designer
* Trung Kien Phan: Backend Developer

### Team Meetings

Every Wednesday at 6pm.

### Team Problems

### Teammates might have different schedules.

### Team Commitment

The undersigned members agree to work together on the project until the end of the PRJ66 next Semester. They recognize that as a team and individually, they are equally responsible for the quality of all deliverables.

|  |  |  |
| --- | --- | --- |
| **Name** | **Date** | **Signature** |
| Angela Chua | Sept 17 2025 | Angela Chua |
| Jackey Zhou | Sept 17, 2025 | Jackey Zhou |
| Aaron Ngo | Sept 17, 2025 | Aaron Ngo |
| Minh Thu Lu | Sept 18,2025 | MTL |
| Phan Trung Kien | Sep 18, 2025 | Kevin |

Section 2

# 2.1 Project Proposal

## 2.1.1 Project Background

With the surge in popularity of collectibles like Pokémon cards and blind boxes (Smiski, Labubu, Sonny Angel), it’s surprising that there isn’t a mainstream platform dedicated to facilitating trades. Collectible trading is fragmented across unsafe platforms (Facebook, eBay, conventions). There is a need for a dedicated, trusted, and user-friendly system to facilitate trades. HobbySwap builds on the insights gained from the PokeSwap prototype, HobbySwap now offers a wider range of collectible categories.

|  |  |  |
| --- | --- | --- |
| **Trade Option** | **Pros** | **Cons** |
| Online Marketplace/Groups  (Facebook) | * Widely used * Easy access | * Not designed for item-to-item swaps (mostly cash-based) * Difficult to track completed trades |
| Niche Sites/Forums | * Can connect passionate collectors | * Low adoption and small user base = limited variety * Outdated or “sketchy” design discourages use |
| Conventions | * Relatively safe and reliable in-person trades * Lively, engaging collector environment | * Entry fees * Limited duration * Must wait for and track events * Vendors undervalue items (70%-80% of market value) |
| HobbySwap | * Encourages item-for-item swaps with the option to add currency for flexibility * Secure and Transparent Trades * Local trades between nearby users are free of charge * Easy access * Modern design * Wide variety of products all in one place | * New platform, may take time to build a large user base * Initial supply of items will be limited * Transaction fees to sustain platform |

## 2.1.2 Problem Statement

Collectors today face major challenges when trying to complete or manage their collections. Platforms like Facebook Marketplace, eBay, or conventions are currently the most common methods used for trading and selling collectibles. However, these platforms are not designed for direct item-for-item exchanges and often leave collectors exposed to scams, inflated prices, and unreliable trade partners. For parents and younger collectors, these risks are even more serious as they lack a safe environment to swap or purchase items. Conventions, while they are a safer option, are limited to specific dates, require entry fees, and only provide temporary opportunities to trade. As a result, for the average collector they will either pay high reseller markups or take risks in unregulated online communities.

The lack of a mainstream, trustworthy, and efficient trade system creates inefficiencies that harm both casual and serious collectors. Blind box collectibles such as Labubu and Smiski are intentionally designed against you randomly opening the item you want. Without a safe trade system, those items often go to waste or flood unregulated marketplaces. Similarly, the resurgence of Pokémon cards, some selling for thousands of dollars or even millions, highlights the scale of value being exchanged in unsafe environments. Collectors now need a secure, transparent, trustworthy, and easy-to-use platform that not only connects them to others but also ensure fair trades, prevents scams, and promotes a healthier collector community.

## 2.1.3 Product Vision

To close the gap between serious collectors, sellers, and causal hobbyist, we aim to establish a reliable online marketplace and community platform where collectors can trade collectibles in a fair and secure manner.

HobbySwap introduces key features designed to address the shortcomings of existing solutions:

* Free Listing and Browsing – Users can explore available items at no cost, with filtering and sorting by category
* Flexible Swap Requests – Collectors can post listings requesting specific collectibles, cash, or a combination of both
* Integrated Chat – On-platform messaging allows users to connect, negotiate and confirm trade details
* Affordable & Fair – Users get more value for their items compared to selling to vendors or local stores. Fees only apply for remote trades where shipping protection is required, while local trades remain free.

# 2.2 Stakeholders and Users

**Internal:**

* **Role name/Persona** - Description.
* ……..

**External:**

* **Role name/Persona** - Description.
* ……..

# 2.3 Project Scope

# 2.4 System Risks

# 2.5 Operating Environment

# 2.6 Functional Requirements

# 2.7 Nonfunctional Requirements

# 2.8 UI/UX Interface Mock-ups

Section 3

# 3.1 Data Flow Diagrams

# 3.2 User Stories and related Use Case Scenarios

# 3.3 Activity Diagrams

# 3.4 Business Rules

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Business Rule #** | **Description** | **Activity Diagram** | **Related UCS** | **UI**  **Mock-up** |
| BR1 |  | AD1 | UC1 | UI 2.7.2 |
| BR2 |  | AD2 | UC2 | UI 2.7.3 |
| BR3 |  | AD3 | UC3 | UI 2.7.4 |
| BR4 |  | AD3 | UC3 | UI 2.7.4 |
| BR5 |  | AD5 | UC4 | UI 2.7.6 |
| BR6 |  | AD6 | UC5 | UI 2.7.6 |
| BR7 |  | AD7 | UC6 | UI 2.7.7 |
| BR8 |  | AD8 | UC7 | UI 2.7.8 |
| BR9 |  | AD8 | UC7 | UI 2.7.8 |
| BR10 |  | AD8 | UC7 | UI 2.7.8 |
| BR11 |  | AD8 | UC7 | UI 2.7.8 |
| BR12 |  | AD8 | UC7 | UI 2.7.8 |
| BR13 |  | AD9 | UC8 | UI 2.7.9 |
| BR14 |  | AD9 | UC8 | UI 2.7.9 |
| BR15 |  | AD9 | UC8 | UI 2.7.9 |
| BR16 |  | AD9 | UC8 | UI 2.7.9 |
| BR17 |  | AD10 | AD9 | UI 2.7.9 |
| BR18 |  | AD10 | AD9 | UI 2.7.9 |
| BR19 |  | AD10 | AD9 | UI 2.7.9 |
| BR20 |  | AD11 | UC10 | UI 2.7.10 |
| BR21 |  | AD11 | UC10 | UI 2.7.11 |
| BR22 |  | AD11 | UC10 | UI 2.7.11 |
| BR23 |  | AD12 | UC11 | UI 2.7.10 |
| BR24 |  | AD13 | UC12 | UI 2.7.12 |

Section 4 – Domain Class

Section 5 – Database

Section 6 – Project Management

# 6.1 Work Breakdown Structure

# 6.2 Milestones & Acceptance Criteria

Section 7 – Product Backlog & Implementation Schedule

Section 8 – Client/Faculty Sign-off