

# VIRTUAL VAULT E-COMMERCE WEBSITE

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By Duncan Turner, Hudson Curren,  
and Hendrawan Kusuma Halim

# INTRODUCTION

**Our team will be launching an innovative e-commerce platform specialising in the sale of video games. In an increasingly competitive market, our primary objective is to distinguish ourselves by offering unique features and experiences that captivate and retain customers.**

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# GOALS

**Product Curation:** Offer a carefully curated selection of video games, catering to diverse tastes and preferences, while also showcasing indie and lesser-known titles to appeal to niche audiences

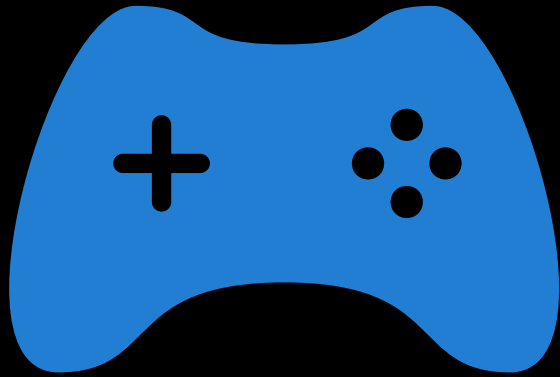
**User Experience Enhancement:** Prioritise intuitive website design, seamless navigation, and efficient checkout processes to ensure a user-friendly experience for all customers.

**Customer Engagement:** Foster strong and lasting relationships with our customers by providing exceptional service, personalised recommendations, and interactive experiences.

**Market Differentiation:** Establish our brand as a unique and distinguishable entity within the video game e-commerce sector.



# OBJECTIVES



**Develop a visually appealing and functional website interface that reflects our brand identity and values.**

**Curate an initial inventory of video games, ensuring a balanced mix of popular titles and hidden gems.**

# PROGRAMMING TECHNOLOGY

## Frontend Development

- **HTML**
- **CSS**
- **Potential for HTMX**

## Backend Development

- **Python Flask**

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# EXISTING SYSTEMS

**The current market landscape comprises several notable competitors in the digital game sales sector, each offering distinct strengths and weaknesses:**

**Steam:** Known for its extensive game catalogue, loyal user base, and strong reputation in the gaming community.

**Epic Games Store:** Leveraging the power of the Unreal Engine, it offers a modern design aesthetic and a growing library of exclusive titles.

**Itch.io:** Emphasises community building, flexibility for indie developers, and rapid game launches.

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# CHALLENGES FACED BY USERS OF THE EXISTING SYSTEM

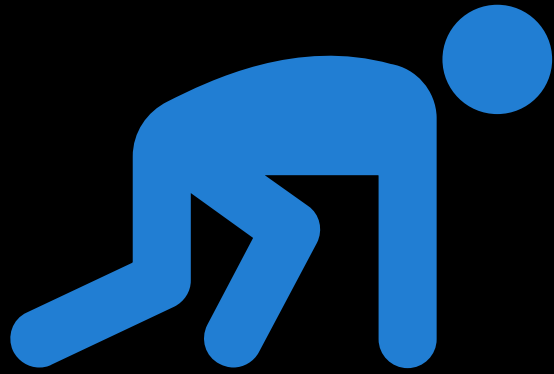
**Users of current platforms encounter various challenges, including:**

- **Fragmented Experiences:** Navigating multiple platforms for game purchases leads to a disjointed user experience.
  - **Limited Personalization:** Lack of tailored recommendations and community engagement options diminishes user satisfaction.
  - **Performance Issues:** Slow loading times, launcher glitches, and platform-specific restrictions hinder seamless gameplay.
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# PROPOSED FEATURES FOR THE NEW SYSTEM

- **Improved Performance:** Optimization for faster loading times and smoother user interactions.
  - **Enhanced Personalization:** Advanced recommendation algorithms and customizable user profiles.
  - **Community Engagement Tools:** Integrated forums, social media sharing, and multiplayer matchmaking.
  - **Accessibility Enhancements:** Support for screen readers, customizable text sizes, and colour contrast options.
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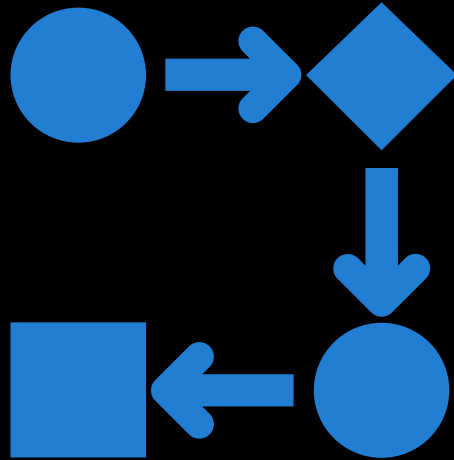




## CHOSEN METHODOLOGY - AGILE

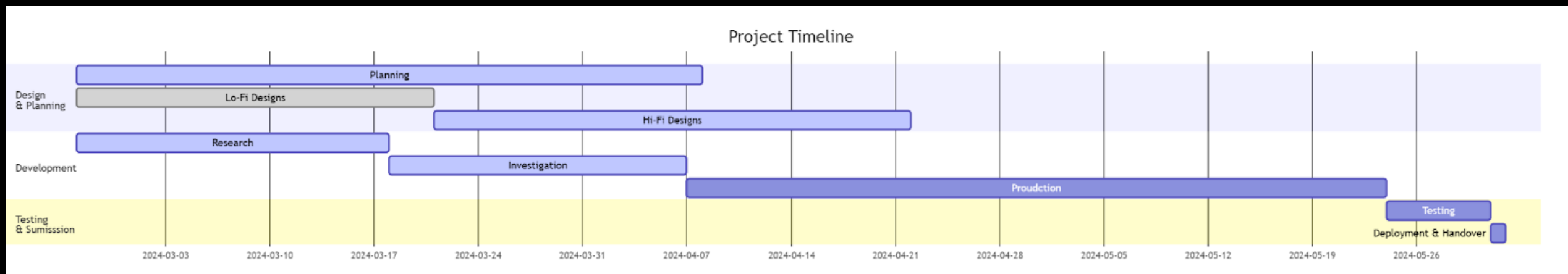
**We have opted for an Agile methodology over Waterfall due to its iterative and flexible nature, allowing for continuous feedback and adaptation throughout the development process. Agile enables us to respond quickly to changing requirements, ensure stakeholder engagement at every stage, and deliver incremental value to the client.**

# PROJECT PHASES



- **Design and Planning (Weeks 1-8):**
- **Production (Weeks 9-14):**
- **Testing (Week 14-15):**
- **Deployment and Handover (Week 16):**

# GANTT CHART



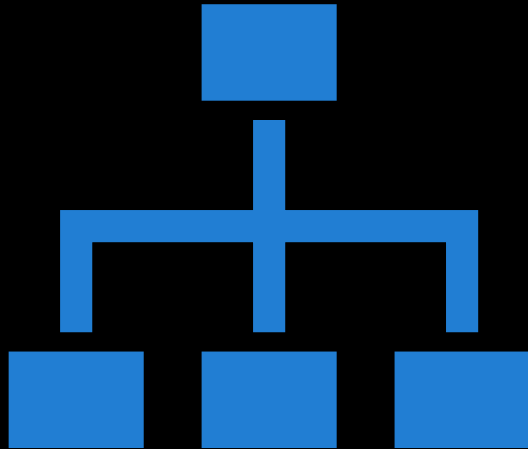
# COMMUNICATION PLAN

**Effective communication is vital for the success of the project.**

- **Microsoft Teams for real-time communication**
- **Trello for task management**
- **GitHub for version control and collaboration on the codebase**



# TEAM ROLES



**Scrum Master: Duncan Turner**

**Facilitates the Agile process, removes impediments, and ensures adherence to Scrum principles and practices.**

**Developers: Hudson Curren**

**and Hendrawan Kusuma Halim**

**Responsible for coding, testing, and delivering user stories as per sprint commitments.**

# RELEVANT BOOKS

- **“Scrum: The Art of Doing Twice the Work in Half the Time” by Jeff Sutherland**
- **“Agile Software Development, Principles, Patterns, and Practices” by Robert Martin**
- **“The Design of Everyday Things” by Don Norman**
- **“Digital Business and E-Commerce Management, 7th edition” by Dave Chaffey, Tanya Hemphill and David Edmundson-Bird**
- **“Blood, Sweat, and Pixels The Triumphant, Turbulent Stories Behind How Video Games are Made” by Jason Schreier**

# USER PERSONAS

## **Gamer Gustavo:**

- Age: 21
- Occupation: University Student
- Description: Passionate about gaming, spends several hours a week playing a variety of games. Enjoys exploring indie titles and participating in online multiplayer games.



# USER PERSONAS

## Casual Cathy:

- Age: 30
- Occupation: Marketing Executive
- Description: Plays games occasionally to unwind after work. Prefers easy-to-access platforms with a wide selection of games. Interested in discovering new titles recommended by friends.





# USER PERSONAS

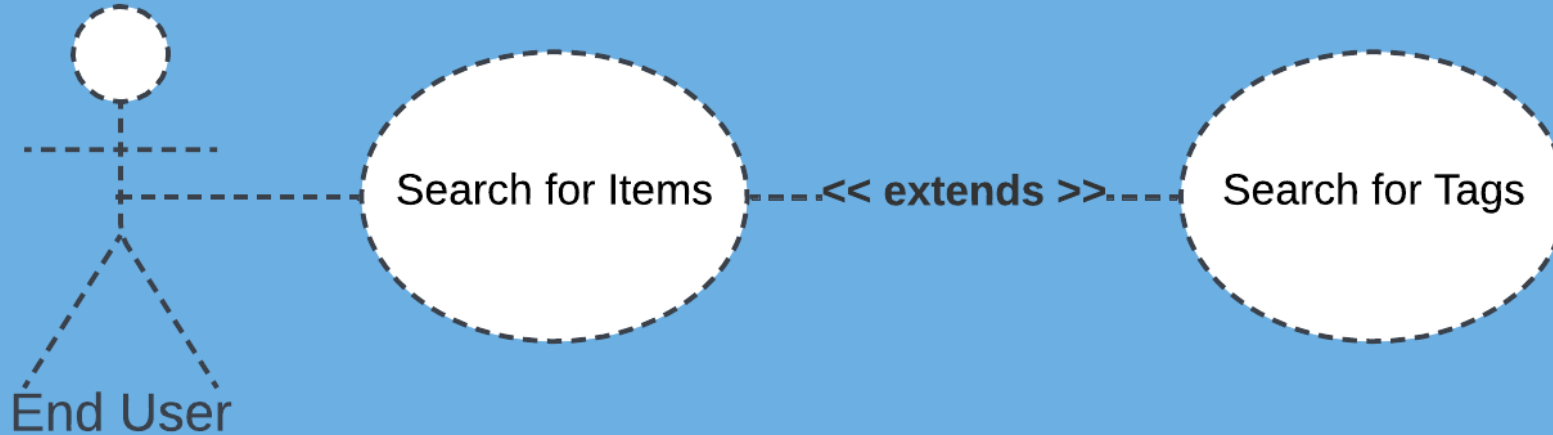
## **Tech-Savvy Tessa:**

- Age: 35
- Occupation: IT Consultant
- Description: Enthusiastic about cutting-edge technology and gaming. Values high-level integration across devices and platforms. Seeks personalised recommendations based on gaming preferences.

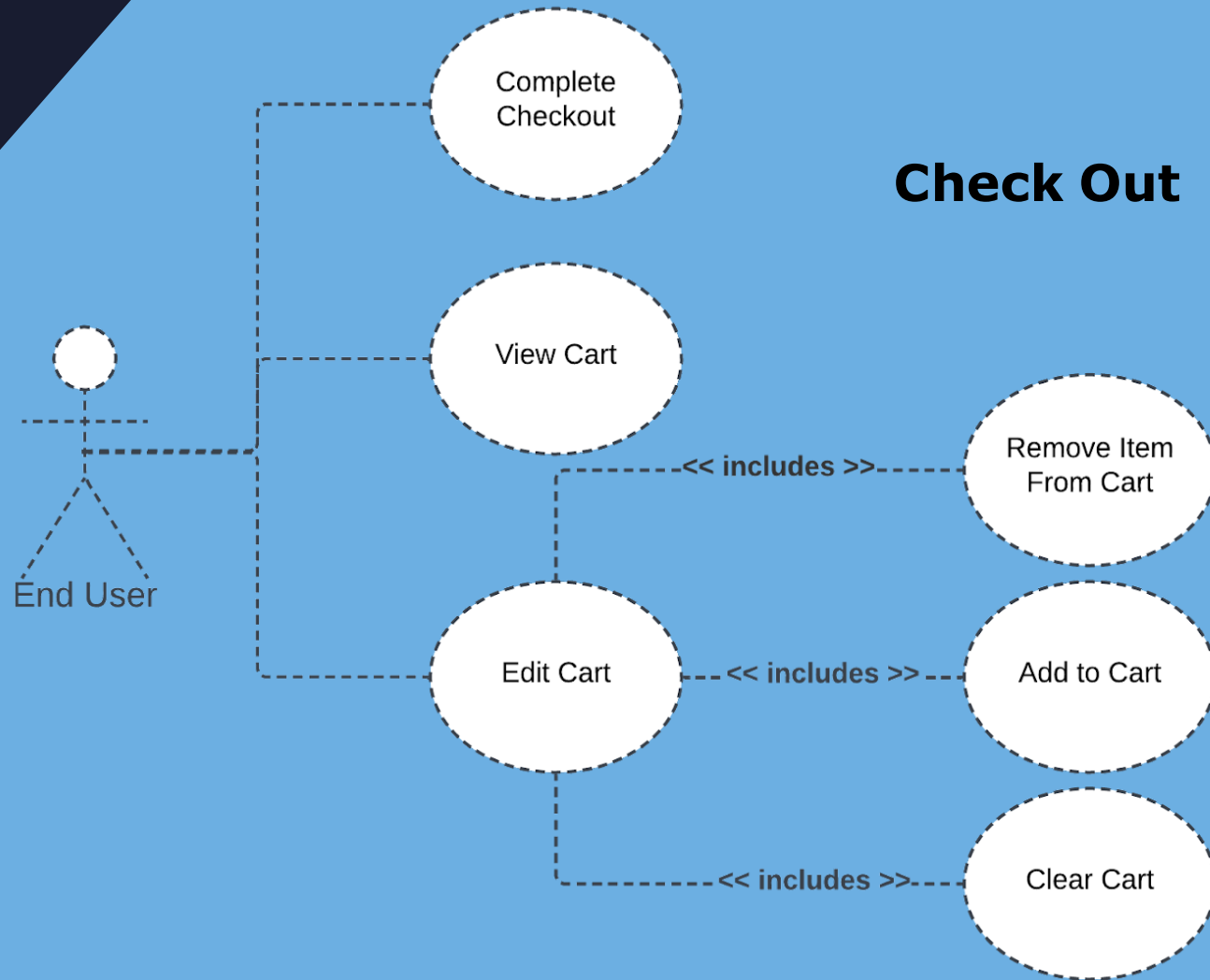


# USE CASE DIAGRAMS

## Search

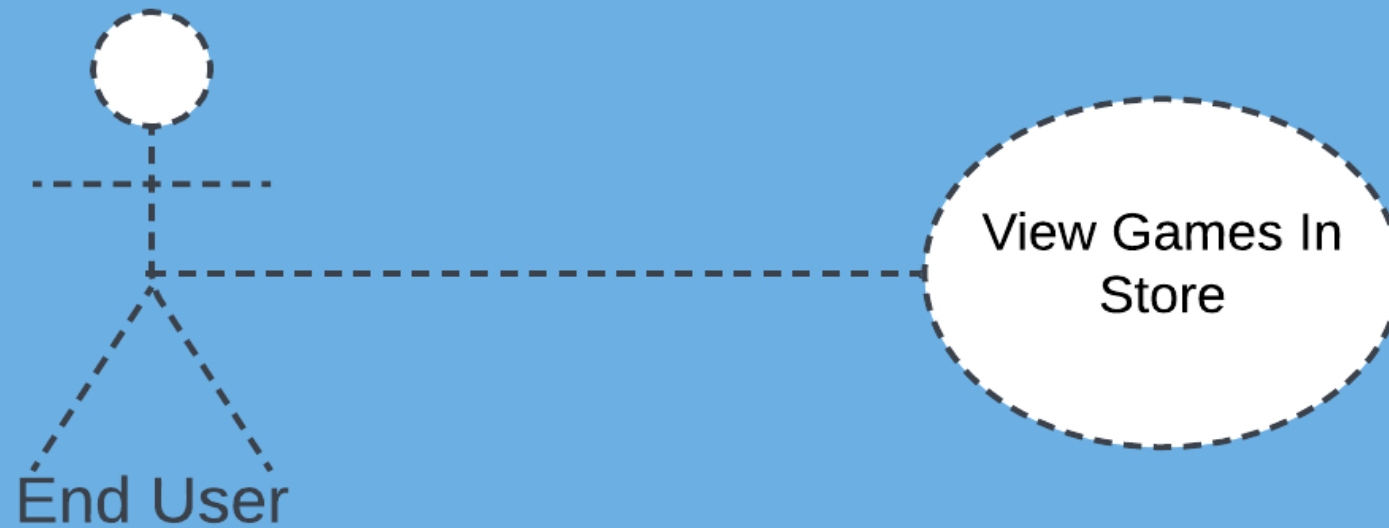


# USE CASE DIAGRAMS



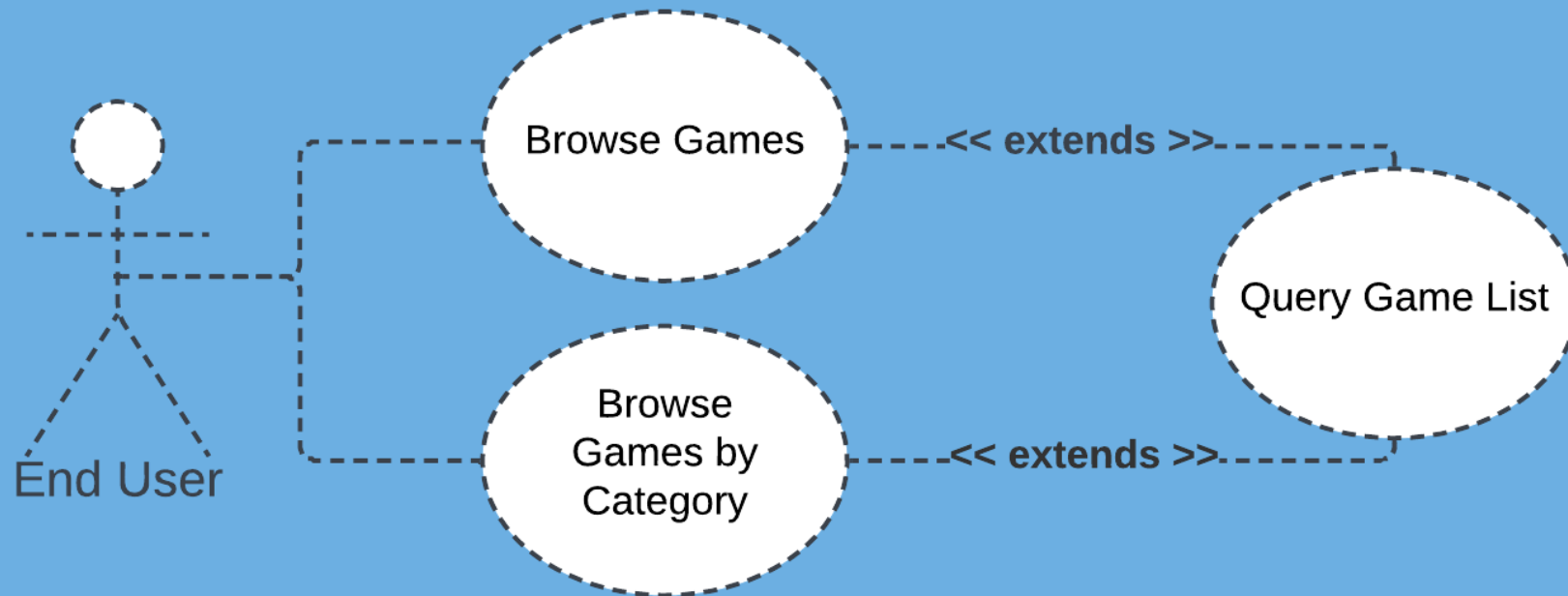
# USE CASE DIAGRAMS

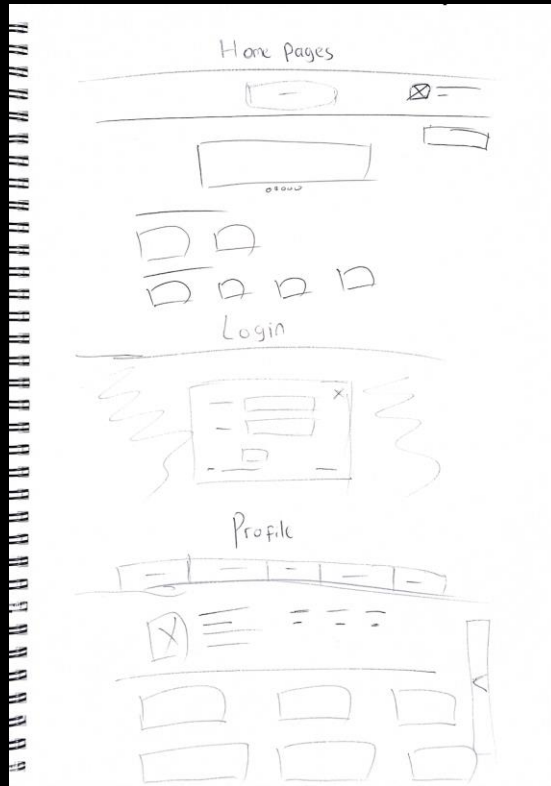
## View Items



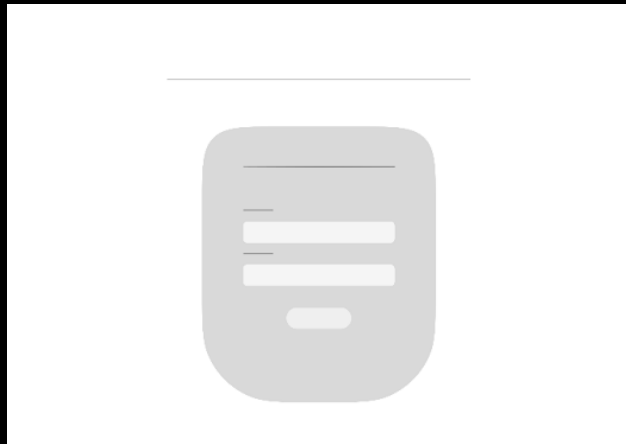
# USE CASE DIAGRAMS

## Browse Items

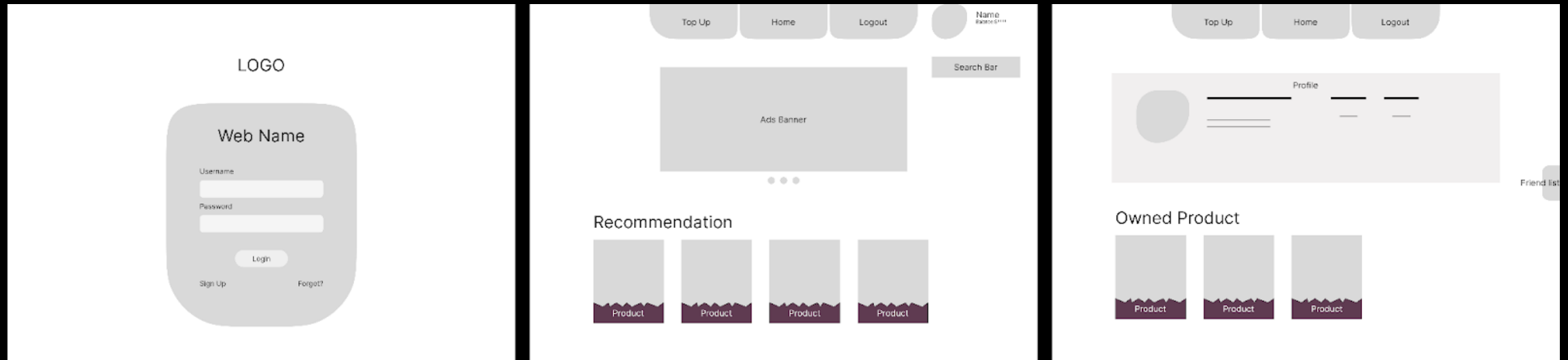




# SKETCHES



# LO-FI DESIGN



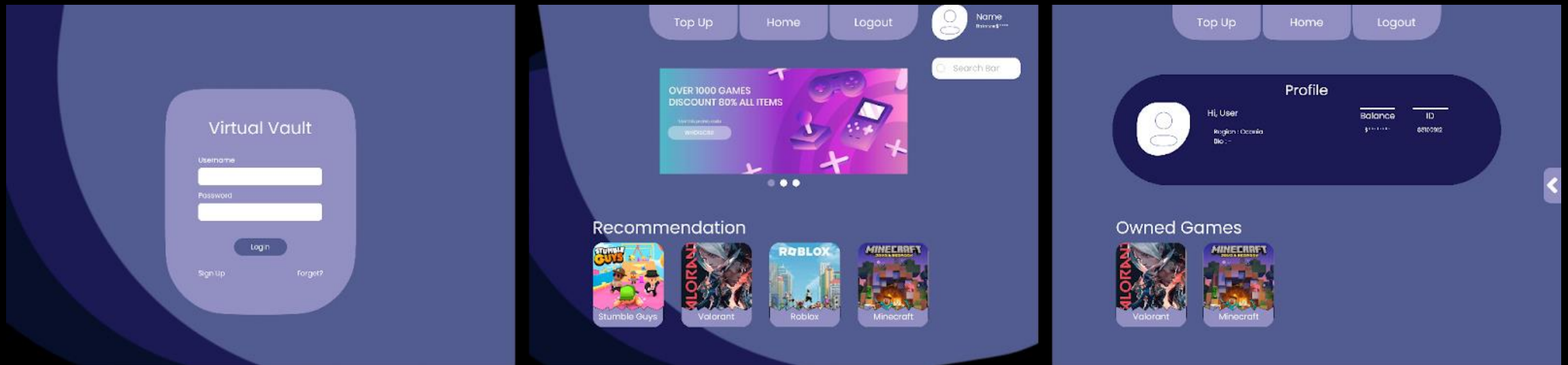
# USABILITY TESTING FOR LO-FI

**Most participants were able to complete the majority of the tasks with the assumption they were already used to the interface with an average 8 score for navigation and 9 for the displayed information. Based on the reviews, we got the conclusion that the information display is fine and we can improve the navigation better or still have space for creators to improve the navigation of the web.**

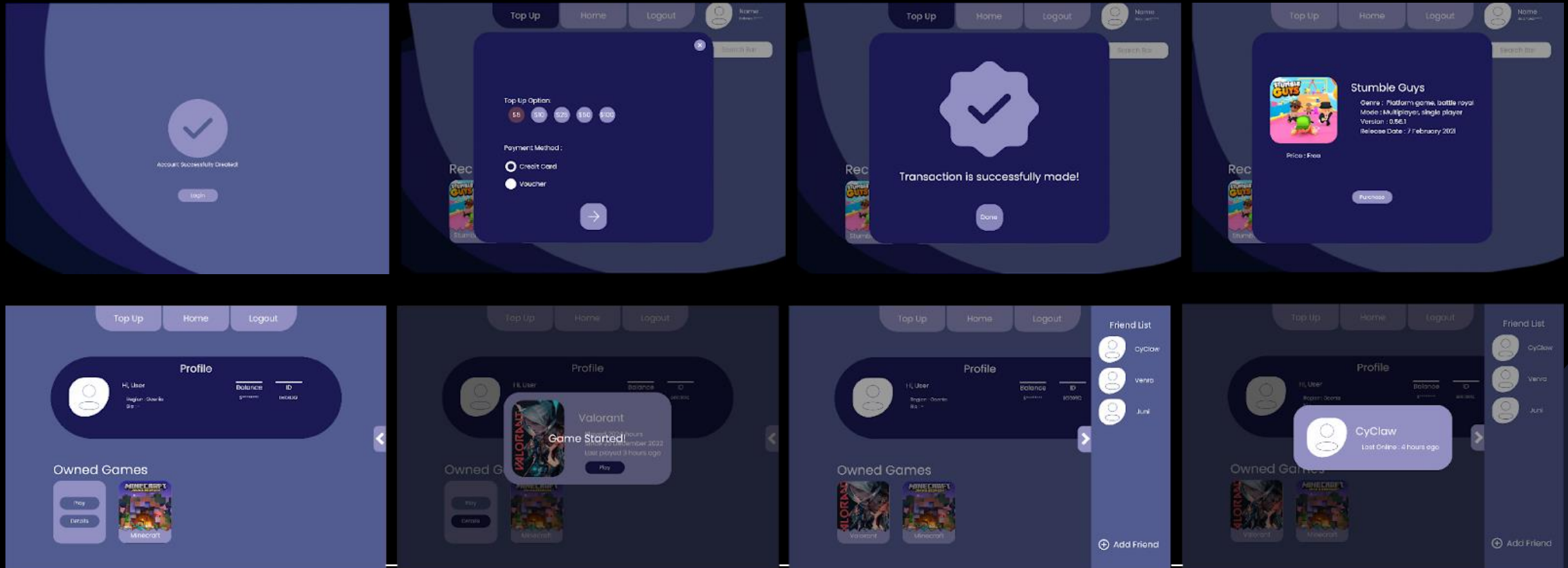
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# HI-FI PROTOTYPE



# HI-FI PROTOTYPE



# USABILITY TESTING FOR HI-FI

**Most of the participants finished the given tasks promptly, while one did take a longer time to complete it. The majority felt less stressed when using the hi-fi interface with a higher quality display along with better navigation, compared to the Lo-Fi. The overall average grading for the interface is 9 with room for improvement in the navigation part with an average score of around 9. The responsiveness and displayed information almost reached the maximum score based on the user reviews.**

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QUESTIONS?



# THANK YOU!

