

Background

Imagine this: you are in a Minecraft world with friends, and you need a lot of wood. You could spend hours getting wood, or you could stop by your friend's shop, who is selling piles upon piles of wood. There is a problem. You have no idea where it is, nor whether its even in stock. This common issue that has personally happened to us, and grows larger as more players join. If only there was a marketplace for players to advertise their listings, akin to Facebook Marketplace. After recognizing this issue, we decided to set this as our project. By build an online storefront, we are fostering Minecraft communities around the world in collaboration and communication.

Goals

- Develop a structured database infrastructure to store a collection of world details, users, Minecraft storefronts, and listings, and items by Mid-February 2026
- Create and deploy a progressive web application and database to allow users to CRUD(Create, Read, Update, Delete) Minecraft worlds, marketplaces, and listings based on their credentials by March 2026
- Create an API to query database information by March 2026.
- Stretch Goal: Integrate Minecraft storefront listings into worlds through the use of data packs or mods. The implementation must allow users to connect to their website profile and to import their storefront listings directly into the world. If time allows to work on this, it will be completed by April 2026.

Scope

[What will be the end result of the project? Describe what phases of work will be undertaken. It's also important to mention what activities will not be included in this project.]

Included Tasks

- Design database infrastructure of database to store the following data:
 - Minecraft World/Server basic info (address, name, user owner, website join code)
 - Storefront basic info (name, description, user owner, private flag)
 - Listing (item(s) up for sale, item(s) required for purchase)
 - User profile (name, password(encrypted), email)
- Create an API that queries the database.
- Build and integrate the backend to use CRUD operations on the database based on user's permissions.
- Design and develop the web app UI
- Deploy web application

Expansion (If time allows)

- Integrate Minecraft storefront listings into worlds through the use of datapacks or mods. The implementation must allow users to connect to their website profile and to import their storefront listings directly into the world.

Excluded Tasks

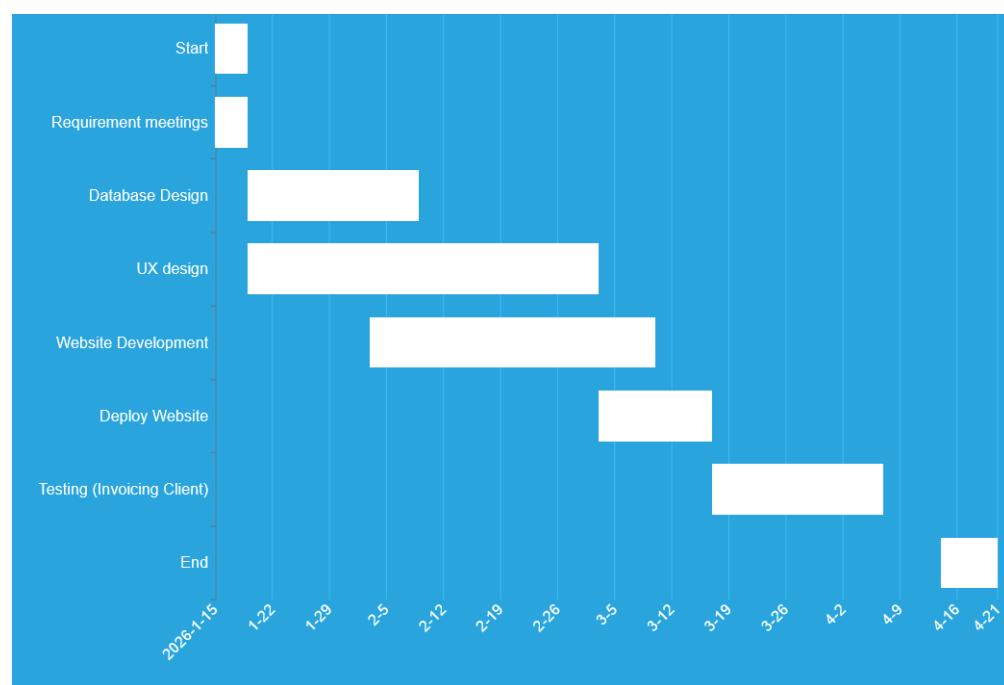
- Develop Website Storefront Moderation tools for Minecraft World owners. These tools would allow users to flag malicious or scam storefronts or sellers, and for world owners to remove storefronts.
- Allow users to create custom items (ie. selling the construction of a house instead of a specific game item).

Key Stakeholders

Client	Minecraft Players (Including us)
Sponsor	Aurek Chattopadhyay
Project manager	Maxwell Blevins
Project team members	Siddarth Padmanabhan, Sai Vivek Kambam, Reagan Eschbach, Ethan Tiller, Maxwell Blevins, Logan Daugherty

Project Milestones

[Identify the significant project milestones: start date, end date and invoicing dates to the client.]



Project Budget

[Describe the main project expenses: non-recurring & monthly recurring.]

3 hours a week * 6 members * 12 weeks = 216 expected hours

\$20 per hour * 216 hours = \$4,320

Constraints, Assumptions, Risks and Dependencies

Constraints	<p>[Describe here potential factors that will impact the delivery of the project]</p> <ul style="list-style-type: none"> • Must use cheap or inexpensive software (<\$50) to build and deploy website • Database and website must be deployed on the internet (not local) • Minecraft item list must include all items in the Minecraft atlas • The project must be completed under/at budget and before 4/17/2026.
Assumptions	<p>[Describe here conditions or situations that you are relying on in order to achieve project goals]</p> <ul style="list-style-type: none"> • The user has access to their inputted world • The user has access to the join code for their given Minecraft world in Minecraft and for our website • The store owner owns the items that they are putting up for sale.
Risks and Dependencies	<p>[What are the most significant risks? What things must happen before the project is delivered?]</p> <ul style="list-style-type: none"> • Users may lose their account login. This will cause world info, marketplaces, and/or listings to be left uneditable and the stores outdated • Before the project is delivered, we must have a functional database and API. We must also have the website created and deployed.

Approval Signatures

Logan Daugherty
 Minecraft Players(Logan Daugherty), Project Client

Aurek Chattopadhyay
 Aurek Chattopadhyay, Sponsor

Maxwell Blevins
 Maxwell Blevins, Project Manager