

TERRARIA EQUIPMENT DATABASE

IT&C 350 DATABASE DESIGN PROJECT

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Sam Swindler

Ethan Beere

Matthew Gregg

Spencer Baird

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PROJECT OVERVIEW

PROJECT OBJECTIVE STATEMENT

Create an equipment preparation system for Terraria players that enables users to discover and create the best combination of equipment for their current in-game situation.

PROJECT STAKEHOLDERS

Who are the Stakeholders?

- Terraria players.
- Our creation team.

Who is going to be maintaining the site?

- We, the aforementioned four horsemen of this project, are the maintainers of the site.

A shortened interview with Mr. Sam, a Terraria expert.

Q: Why do you like Terraria?

A: There's lots of bosses and lot of fun equipment. You can kill things with yo-yo's!

Q: What is the hardest thing about Terraria?

A: Acquiring stuff and getting ready for fights. Need to understand how to get ready.

Q: What would you envision an app of this type could do for you?

A: It could help me understand my options at where I am in the game.

Q: Limitations of current systems?

A: Terraria wiki exists, but you have to browse the wiki. Stats aren't shown in a concise form.

Q: What features would you like to see?

A: Understand boss difficulties, and crafting trees.

APP REQUIREMENTS

FUNCTIONAL REQUIREMENTS

Home Page Functionality

- Users can see a list of all items available for them to acquire and use under the condition that they have logged in and created a character profile.
- The list of available items changes based on the information provided by users about their Terraria Character.
- Users can view individual items with statistics about each item.
- Users can select an item to add to their list of equipped items.

Character Page Functionality

- Users can record what bosses their character has defeated so far.
- Users can record whether they have entered hard-mode or not.
- Users can record what biomes/regions they have discovered in their world so far.
- Users can see the current character statistics with the items they have equipped.

User page Functionality

- Users can create and select characters.
- Users can change their password.

NON-FUNCTIONAL REQUIREMENTS

Security

- Website protects against XSS.
- Website inputs will protect against SQL injections.
- Fail2ban (wish list)

Availability

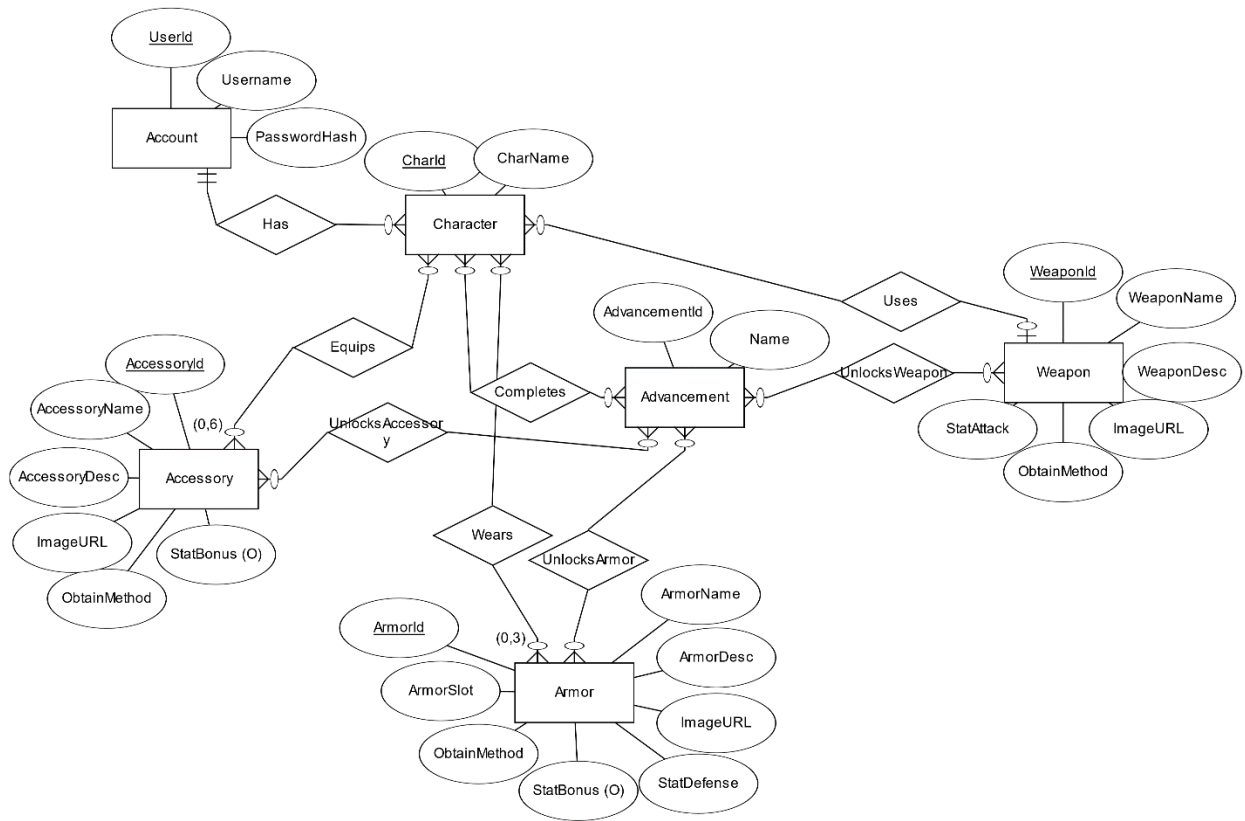
- 95% uptime and availability.

Usability

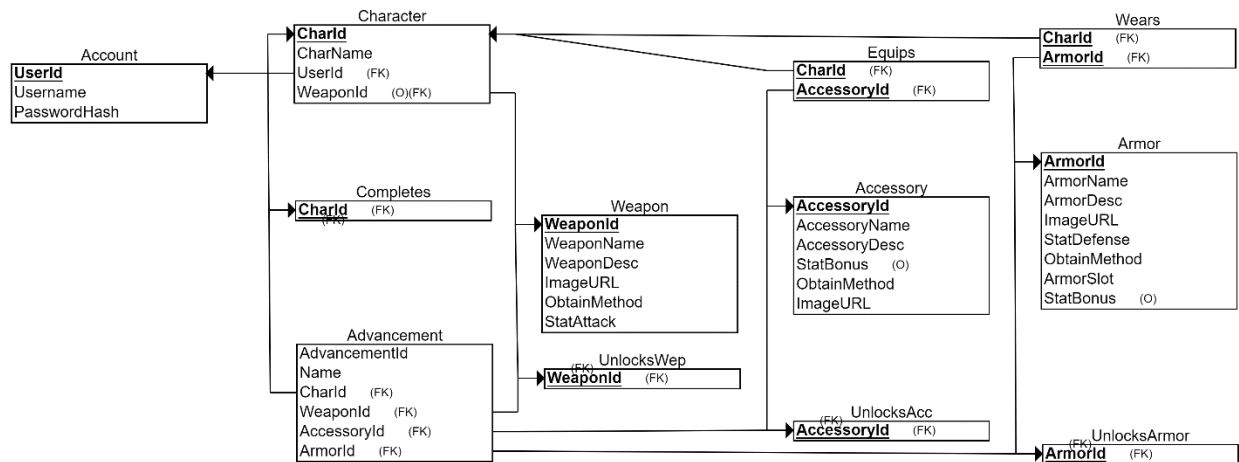
- Mobile/Desktop application. (wish list)
- Dark mode.

DATABASE REQUIREMENTS

ER DIAGRAM IMAGES



SCHEMA DIAGRAM



BUSINESS RULES

- Users can create up to 25 characters.
- Newly created characters have no items assigned to them.
- Characters can equip, at maximum, 1 weapon, 3 armor pieces (head, chest plate, boots), and 6 pieces of equipment.
- Users can have zero or one characters selected for viewing relevant and equipped items.
- The list of items cannot be changed from the front end and will be managed directly in the database by site administrators when needed.
- Usernames can only contain letters and numbers (no special characters).
- Attempts to equip more items than is permitted will not replace prior equipped items (operation will produce an error instead).
- If a user has no character selected, they are unable to equip any items.
- Users can have zero or more advancements selected when filtering data output.

APPENDIX 1: LOW-FIDELITY PAPER PROTOTYPES

Hand-drawn paper prototypes for a user interface, showing two screens.

Screen 1: Login Screen

The screen is titled "Login". It contains two sections:

- Login Section:** Includes fields for "Username" and "Password", a "Login" button, and a link for "Forgot password?".
- Register Section:** Includes fields for "User name", "New Password", and "Confirm Password", and a "Register" button.

Screen 2: Account controls screen

The screen is titled "My Character" with a house icon. It contains two sections:

- Character Select:** Includes a "name" field with an "Add Character" button, and three character entries, each with a "select" and "delete" button: "Character 1", "Character 2", and "Character 3".
- Password Reset:** Includes fields for "New password" and "confirm pass", and a "Submit" button.

An "Account" button is located in the top right corner of the screen.

My Character

Account

Name of Character *redity*

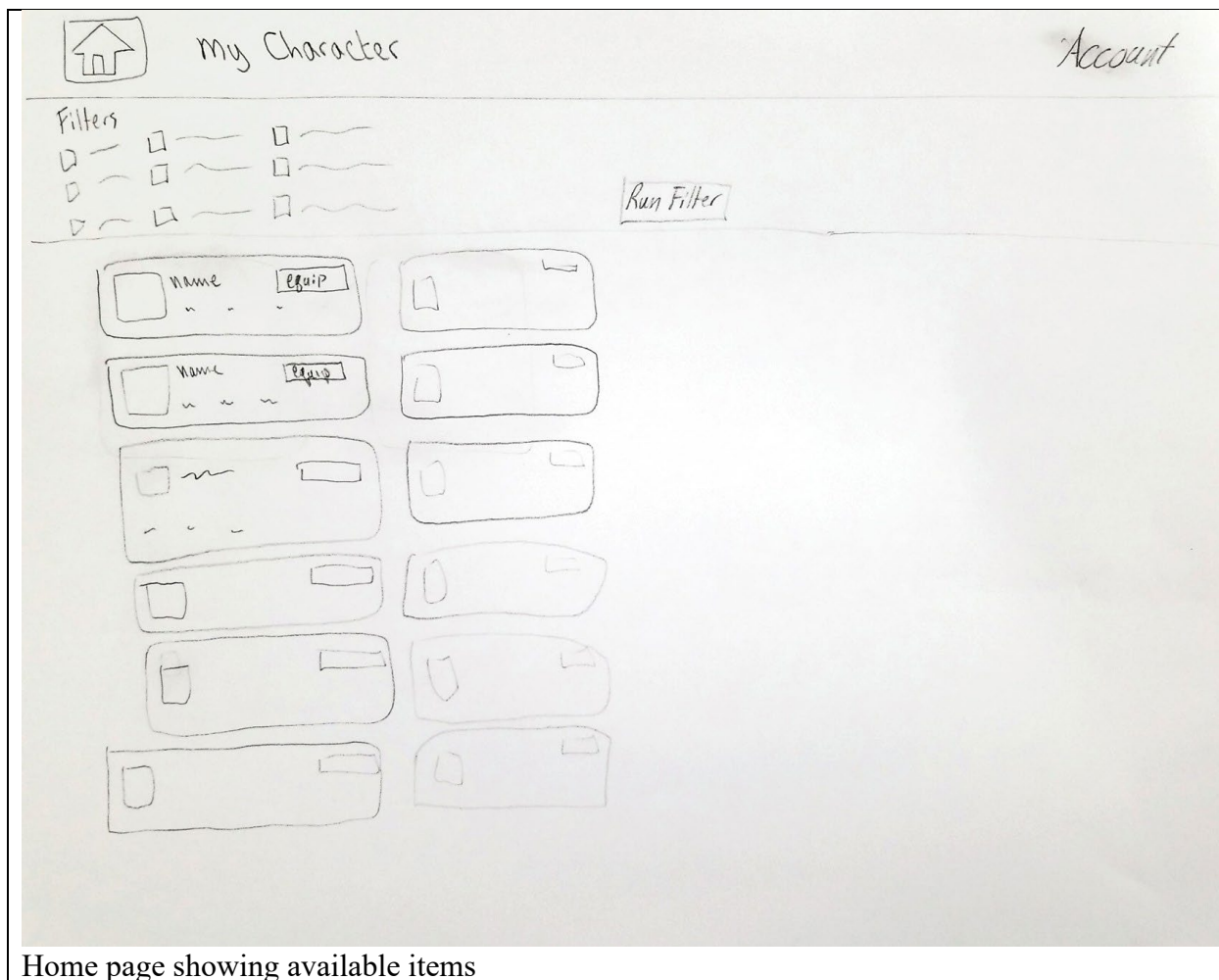
Armor

Accessories

Weapon

Statistics

Hand-drawn sketch of an Item Details Screen. The screen features a back arrow and 'back' text at the top left, and the title 'Item detail' at the top right. Below the back arrow is the 'Item Name' label with a horizontal line, and to its right is a rounded rectangle containing the text 'equip'. Below the 'Item Name' label is the 'Statistics' label. A large, empty rounded rectangle occupies the lower half of the screen, intended for the statistics content.



APPENDIX 2: HIGH-FIDELITY PAPER PROTOTYPES

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