

Sprint Reflection

Features, Assumptions & Decisions Made During Development

- **User Authentication**
 - We relied on Django's built-in authentication framework, for username/password authentication, as it proved to be a sufficient connection.
- **Security Measures**
 - Django's default password hashing algorithm was assumed to mask passwords.
- **User Interface and Interaction**
 - Assumed that users would be able to access the web app using their devices and this would redirect them to their respective dashboard if logged in.
- **Backend and Database:**
 - We assumed that the database could handle queries efficiently, and was reliable for all dependent components.
- **Prototype Development:**
 - Card Images for the prototype were assumed, as they were auto-generated by AI.
- **QR Code Feature:**
 - Assumed that users would be able to automatically navigate to an auto-generated HTML page when scanning QR codes.
- **Frontend-Backend Integration:**
 - Understood that the connection between the Front-End and Back-End was not straightforward. Required deeper knowledge of Django views that were used to connect the Database to the Front-End.

Challenges Faced During Development & Rectifications

- **Merge Conflicts & Git Workflow:**
 - **Challenge:** Frequent merge conflicts were occurring during file restructuring and with branches not syncing with the main branch.
 - **Fix:**
 - Initiating pull requests from feature branches.
 - Merging main into feature branches before the final merge.
 - Increasing branching discipline and avoiding direct changes to main.
 - Enhancing communication via detailed Kanban board updates and more frequent standup meetings.
- **Django Infrastructure & Lack of Prior Experience:**
 - **Challenge:** Initial unfamiliarity with Django made it difficult, particularly for user authentication and verification.
 - **Fix:**
 - Studying Django documentation and following multiple online tutorials.
 - Gaining practical understanding of Django's project structure and its authentication system.
- **Front-End Development:**
 - **Challenge:** Inexperience with front-end development posed difficulties in creating the landing page HTML.
 - **Fix:**

- Learning key concepts through online tutorials, especially using Bootstrap.

Future Development of Existing Capabilities & New Features for Sprint 2

- **Account Security Enhancements:**
 - Implement forgot password functionality
 - Enable user account deletion
 - Add brute force/DoS protection, email verification, and two-factor authentication
- **UI/UX Improvements:**
 - Enhance landing page with animations, loading indicators, and interactive elements
- **Backend & Data Integrity:**
 - Increase database validation and automate tests
 - Extend card model attributes
- **Feature Expansion:**
 - Introduce booster pack creation for gamemasters
 - Create Trading Mechanisms