
Design Document for Wizard 309

Group LG-115

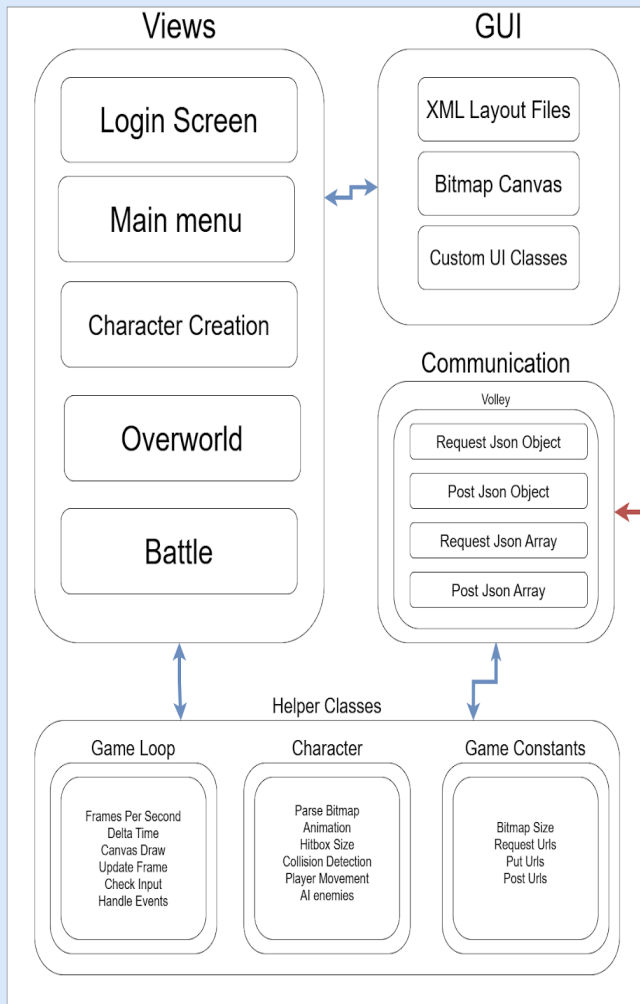
Member 1 Philip: 25% contribution

Member 2 Jacob: 25% contribution

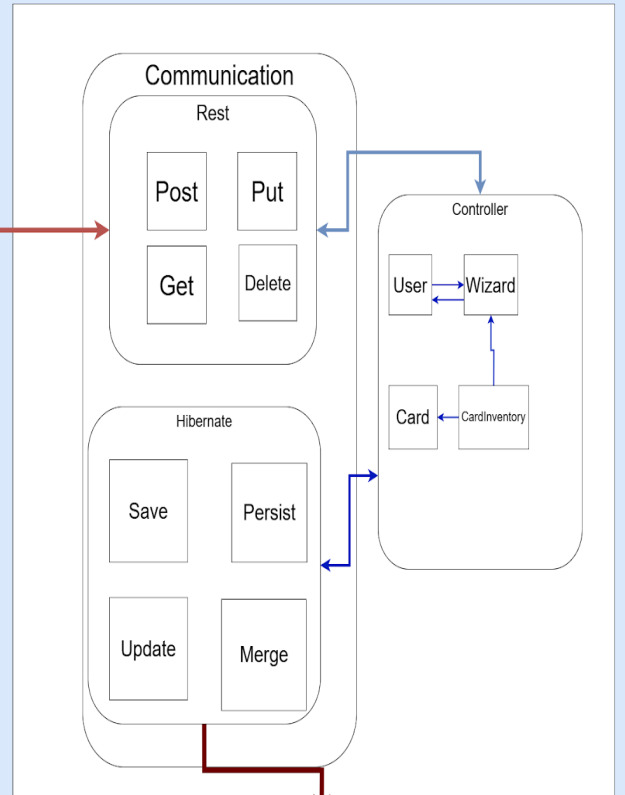
Member 3 Abhi: 25% contribution

Member 4 Oscar: 25% contribution

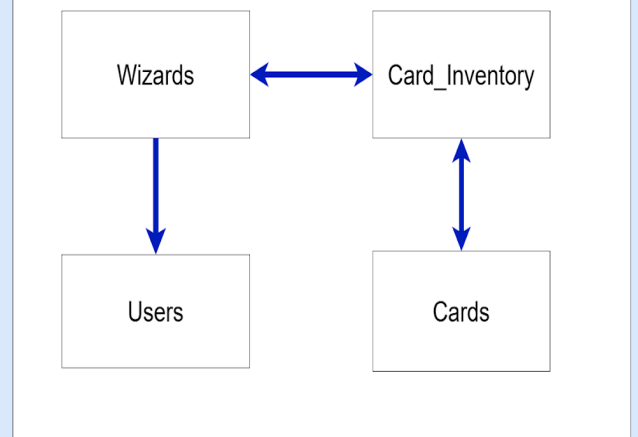
Frontend



Backend



Data Base MySQL



LEGEND

HTTP CONNECTION



JDBC CONNECTION



GENERAL RELATION



Frontend

Login screen (All)

- Signup : Generates new users based on the given information. Then submits to the database with a button once all fields are filled properly.
 - Username
 - Password
 - Age
 - Email
- Sign-in: User must be created before being able to login. Users must provide.
 - Username
 - Password

Main Menu (All)

- Select wizard
 - Users are able to view their three wizards or save files
- Continue - Button
 - If a player had a previously used wizard a player can select continue to enter the game and continue using that wizard.
- Create Wizard
 - Wizard Name Text input (Unique name)
 - Wizard Element
 - Wizard Skin
- Settings(Not implemented)
 - Audio
 - Change Username, Password

Game States

- Overworld
 - Player joystick
 - Custom UI and Touch implementation getting the delta of the movement to calculate the player moving
 - User UI
 - Player health: Displays the current health percentage via a status bar
 - player mana: Displays the current mana(card points) via a status bar
 - player inventory: In the lower right corner, displaying inventory of all cards
 - in-game settings: displays different in-game settings the player can configure
 - Player: displays current wizard and sprite, name, and element of the user. The user can have up to three unique wizards. The user can play as one at a time.
 - Other players: Overworld displays all other players in the game and can interact and roam the open world with them.
- Battle
 - Interactable custom card UI
 - Drag and drop cards on to enemies and players with unique abilities
 - Card deck of 5 and draw new card from deck after use
 - NPC enemies with different difficulties
 - npcs up to 4 join a battle with up to 4 players
 - different element and types of enemies can join
 - Run button
 - allows players to escape battles on their turn

Backend

Communication

- Post: Sends information to the server and puts it in the database
- Get: Takes in a body or url parameter and requests all the items from the database

- Put: Takes in a body or url parameter and finds the items and changes the value for it
- Delete: sends a body or url parameter and deletes that specific item from the database

Controllers

The controllers contain the mappings for communication between frontend and the database.

- Users: Contains the above mapping to create a User which has a one to many relationship with Wizards
- Wizards: has many variables needed for gameplay and displaying. Has a many to many relationship with the CardInventory controller
- Enemy: has many variables needed for gameplay and displaying. Has a many to many relationship with the EnemyCardInventory controller
- Cards: has card specific stats and types for gameplay. Has a many to many relationship with the CardInventory controller
- CardInventory: Holds who owns what cards. The wizards and cards have a many to many relationship. It has mappings to add cards to wizards and to move the card from the inventory to the deck and it has a mapping to get the inventory or the deck.
- EnemyCardInventory: Holds who owns what cards. The Enemy and cards have a many to many relationship. It has mappings to add cards to wizards and to move the card from the inventory to the deck and it has a mapping to get the inventory or the deck.
- Map: holds the 2D array that contains the id values for each chunk of the world that is loaded in.
- Coordinate: holds the fixed paths that the wisp move on in the overworld

