

Final Project Specification: Miller's Hollow Online

Team **Miller's Hollow**

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I Functionality

I.1 Not in a Game

I.1.1 Authentication

1. Login: Registered Users may login to the website by correct username and password, and get authenticated and authorized
2. Register: Unregistered Users may register to the website by providing username, password and email
3. Activate Account: Registered User may activate the account by click the activation link in the email automatically sent when successfully registered
4. Logout: Authenticated User may logout the website
5. Change Password: Authenticated User may change the password by correct current password
6. Reset Password: User who forget their password may reset the password by providing the email correspond to the account
7. Reset Password Confirm: User may set their new password by click the link in the email automatically sent when password is successfully reset

I.1.2 Profiling & Setting

1. Editing User Information: Authenticated User may change the first name, last name and email
2. Upload avatar: Authenticated User may upload a picture to change the avatar
3. Set preference game: Authenticated User may set the preference game in the settings to skip the game choose phase in build game and matching game
4. Set waiting time: Authenticated User may set the waiting time in the settings to change the default waiting time before every speech starts
5. Set Music, Display and Log settings: Authenticated User may set the music volume, display settings(turn on/off camera of other user in case the network is not good enough) and log verbosity in the settings

I.1.3 Game Mode

1. Matching Game: Authenticated User may start a matching game where different unrelated players attend
2. Build Room Game: Authenticated User may build a room game where friends are invited to play game together; in the mean time, a share token is generated for other users to join
3. Join Room Game: Authenticated User may join a room game by a share token

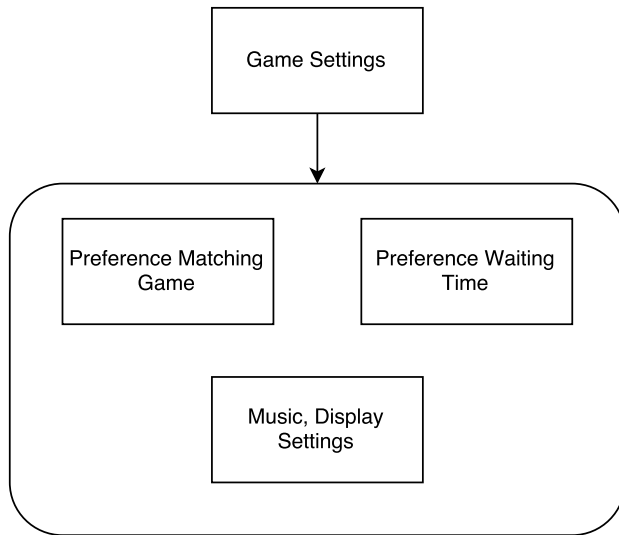


Figure 1: Functionality: Profiling & Setting

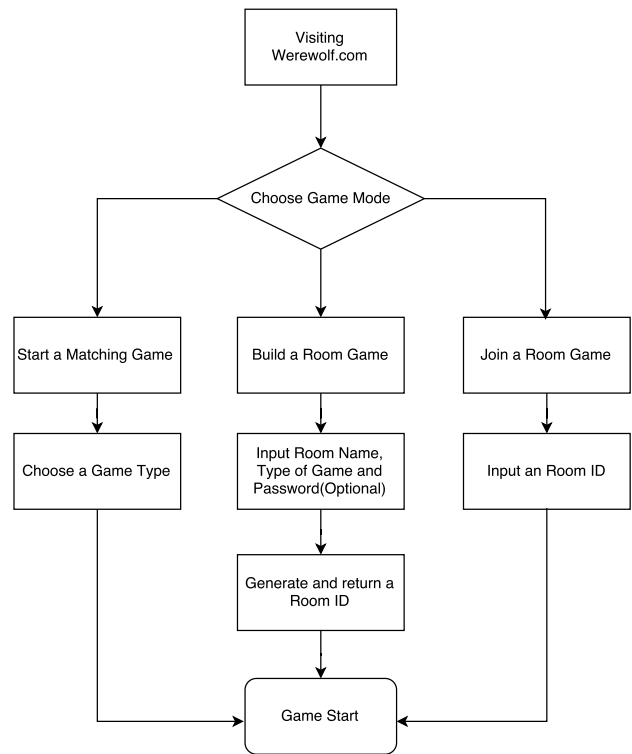


Figure 2: Functionality: Game Mode

1.1.4 Room Member

When Authenticated User join a Room Game, he/she automatically becomes a Room Member

1. Change to empty seat: Room Member may change the seat to a new one if it is empty
2. Leave the room: Room Member may leave the room by clicking the Leave Button
3. Chat: Room Member may chat in the room and the message can be seen by all the Room Members
4. Get ready: Room Member may get ready by clicking the Ready Button(when all the Room Member is ready, the Room Owner can Start the game)
5. Cancel ready: Room Member who is ready may cancel it by clicking the Cancel Button

1.1.5 Room Owner

Room Owner have the functionality of Room Member from 1 to 3. A Room Member can be selected as a Room Owner by the previous Room Owner. The original one is the user who build the room. A Room Game can only have one Room Owner. Room Owner has the extra functionalities as follow.

1. Set a Room Member as Room Owner: Room Owner may choose another user as the new Room Owner
2. Kickout Room Member: Room Owner may kickout Room member
3. Start Game: Room Owner may start the Room Game by clicking Start Button when all the Room Member is ready

1.1.6 Achievements & Tasks

1. Tasks: Authenticated User may receive one task a day automatically in the Achievements & Tasks Board, and get awards by completing it. One user can hold three tasks at max

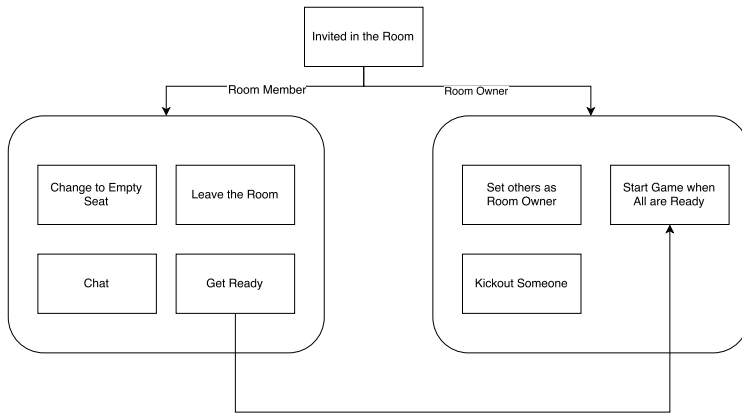


Figure 3: Functionality: Room Member & Room Owner

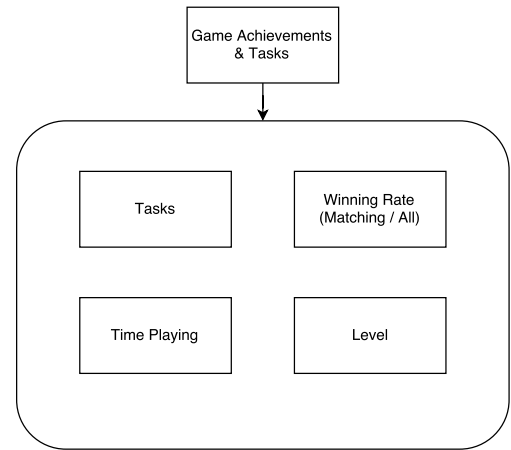


Figure 4: Functionality: Achievements & Tasks

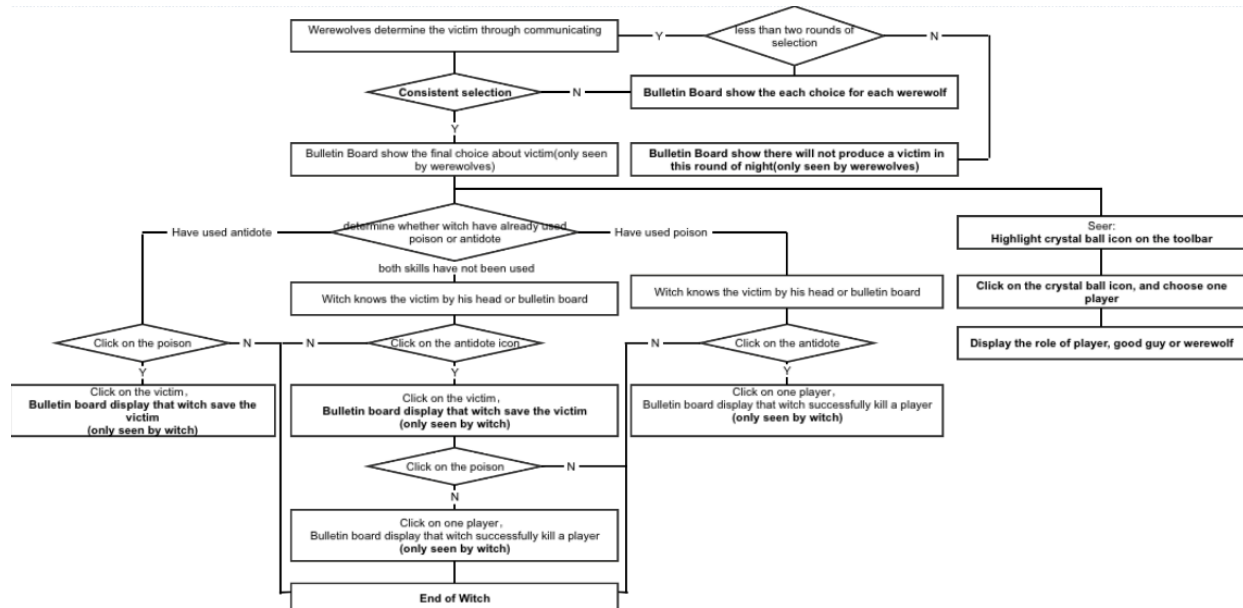


Figure 5: Functionality: Game in the Night

2. Exchange task: Authenticated User may exchange a task one day, the new one will be different from the old one
3. Winning Rate: Authenticated User may check the winning rate in the Achievements & Tasks Board
4. Time Played: Authenticated User may check the time played in the Achievements & Tasks Board
5. Level: Authenticated User may check the level in the Achievements & Tasks Board, which is mainly based on the winning rate and time played. The level is the main dependency of Matching Game.

1.2 In a Game

2 Data Model

2.1 User

User class is Django basic authenticate model



Figure 6: Data Model: User

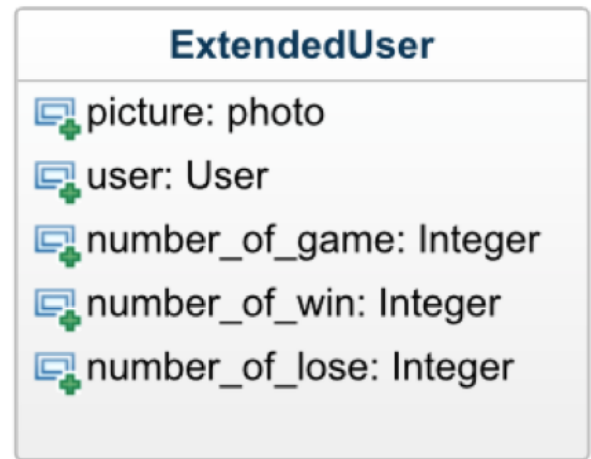


Figure 7: Data Model: Extended User



Figure 8: Data Model: Game

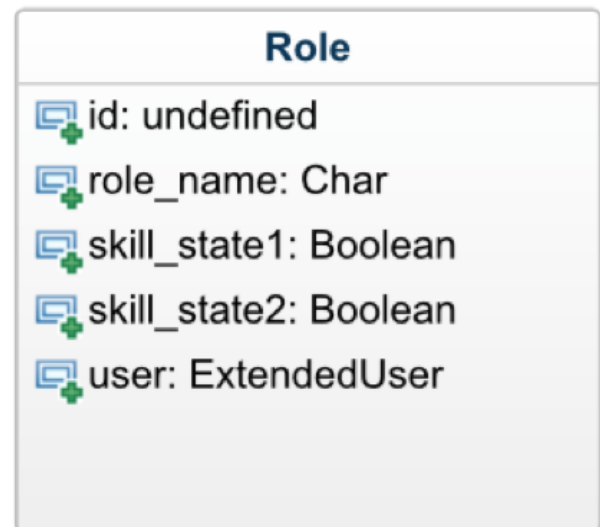


Figure 9: Data Model: Role

2.2 Extended User

Extended User class store the user data for website:

1. picture attribute store the user head picture
2. user attribute store a foreign key relate to User class

2.3 Game

Game class store the data for each game:

1. state attribute means different states in a game, such as when state equal 0, it means the first night round
2. isStart attribute means whether the game has started, such as when isStart equal True, means game is start
3. role1 12 attributes are foreign key relate to role class, means each player's role information

2.4 Role

Role class store the role information:

1. skillState1 attribute means whether role have used its first skill
2. skillState2 attributr means whether role have used its second skill
3. user attribute is a foreign key relate to a extended user class