Web Mighty

Abstract

Web Mighty offers game sessions of Mighty. Customers who want to play Mighty online can make or join rooms and play the game. Multiple game sessions can be run concurrently. Each customer has to sign up for their own account that can be customized (e.g. avatar). Each customer can add other users on the friend list. All of the game data will be collected, gathered to main server, and analyzed. With analyzed data, Web Mighty will offer "Hall of Fame" system, and so far. Also, we will offer AI players that have basic gameplay functionality. This feature will make the game more robust, because absent players can be replaced by AI players. Players can spectate game of others. Spectators can chat about game. Chatting record will be open to the players at the end of the game. Spectators can join the next game if some players leave the game.

Revisions

2017-11-19 - For sprint 3
2017-11-03 - For sprint 2
2017-10-20 - initial version

Changes

Added more future discussion points. Changes for Sprint 3 is marked as blue.

Customer

Anyone who is interested in playing online Mighty can use our service.
Specific target is SNUCSE students.
We will provide our customers pleasant gameplay experience, personal gameplay data, and competitive ladder system.

Competitive Landscape

There is an existing online Mighty called Network Mighty(네트워크 마이티), which is developed long ago. It offers both online multiplayer game sessions and offline game sessions with AIs, and the rule for each game is highly customizable. However, the game only runs on Windows, and its AI behaves awkward sometimes. Also, to play online multiplayer games, there should be at least one "host player" who opens a Network Mighty server, among the players. The host can offer only one game at a time, and it might be unstable in connectivity. Web Mighty, on the other hand, will run on the web browser, which is platform independent. Its AI will be fine-tuned so that the players can play reasonable games and have fun even with AIs. Furthermore, Web Mighty will offer a reliable central server that can serve more than one game concurrently.

Also, there are several Mighty game application at Google Play Store, but most of them does not support multiplayer feature. Furthermore, their game rules are very weird and different with each other, so the players are likely to get confused and easily give up the game.

User Stories

Feature: Unregistered users can sign up to create new account
Scenario: Sign up
Iteration: Sprint 1
Acceptance Test:
Given I am not logged in and on Login page
When I press 'Sign up' button
Then I should be on 'Sign up' page
When I fill up the required information correctly
And I press 'Confirm' button
Then verification email will be sent
And I should be on login page
When I fill up the required information incorrectly
And I press 'Confirm' button
Then I will be informed to correct some forms
When I follow the link inside of verification email
Then a new account is created and I should be on Login page

Feature: Users can login to play Mighty
Scenario: Login
Iteration: Sprint 1
Acceptance Test:
Given I am on Login page
When I fill up the form correctly

And I press Login button
Then I will navigated to Lobby
When I fill up the form incorrectly (e.g password incorrect)
And I press Login button
Then I will be informed to correct some forms

Feature: Users can see the profile page
Scenario: Display profile
Iteration: Sprint 1
Acceptance Test:
Given I am navigated to someone's profile page
Then I should be able to see the profile page with avatar, nickname, and so on
When I am logged in as the profile owner
Then the "Edit" Button should appear and be clickable
When I am not logged in or logged in as other user
Then the "Edit" Button should not appear

Feature: Users can edit their own profile
Scenario: Edit personal information
Iteration: Sprint 1
Acceptance Test:
Given I am on my Profile page
When I click the "Edit" button
Then I should be at Profile Edit page
When I modify some personal information
And I type the password for verification
Then my profile should be modified and I should be at the profile page which is updated with new information
When I type the password incorrectly
Then I should be informed to input correct password
Scenario: Upload new avatar
Iteration: Sprint 1
Acceptance Test:
Given I am on Profile Edit page
When I click "Find" button
Then I should be able to see "browse file" prompt
When I selected a file which have correct format
Then image preview should be appear
When I selected a file which have wrong format
Then I should be informed to upload the correct image
When I click "upload" button
Then the avatar should be updated to submitted image without password verification

Feature: Users can join or search room on Lobby
Scenario: Join a room
Iteration: Sprint 1
Acceptance Test:
Given I am on the Lobby
Then I can see the list of valid rooms
When I click the "Join" button of one of the rooms
Then I should be at the Game Room
Scenario: Search or filter room
Iteration: Sprint 2
Acceptance Test:
Given I am on the Lobby
When I type keywords in the search input box
Then the rooms are filtered with the keyword
When I select the preferred game options
Then the rooms are filtered with the options

Feature: Users can see their profile from the Lobby
Scenario: Navigate to the profile page
Iteration: Sprint 1
Acceptance Test:
Given I am on the Lobby
Then I can see my profile picture and my nickname on the menu bar
When I click my profile picture or my nickname
Then I should be on my profile page

Feature: Users can see rankings on the Hall of Fame
Scenario: Display the Hall of Fame
Iteration: Sprint 1
Acceptance Test:
Given I am on the Hall of Fame
Then I should be able to see the ranking of players
When I am logged in
Then I should be able to see my own ranking belong to other players
When I click someone's nickname
Then I should be on the Profile page

Feature: Users can create a game from the Lobby
Scenario: Display game creation popup
Iteration: Sprint 1

Acceptance Test:
Given I am on the Lobby
When I click "Create New Game" button
Then I should see "Create New Game" popup
Scenario: Create a game
Iteration: Sprint 1
Acceptance Test:
Given I am seeing "Create New Game" popup
When I fill in the room name
And I set up the game rule
And I click "Create" button
Then I should be on Game Table

Feature: Users can play Mighty
Scenario: Play Mighty
Iteration: Sprint 2
Acceptance Test:
Given I am on Game Table
When I click my card
And this play is correct play
Then the game status is updated
Scenario: Leave a game
Iteration: Sprint 1
Acceptance Test:
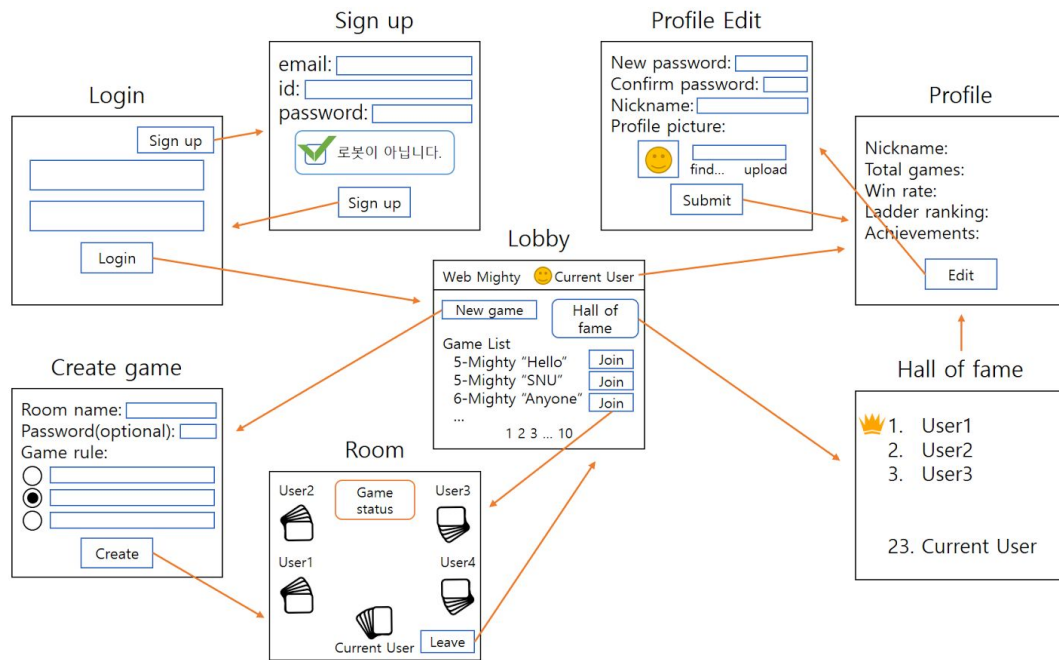*Given* I am on Game Table
When I click "Back" button
Then I should be on Lobby

Future Iteration Discussion
- Sorting options for Hall of Fame
- AI player substitution when user left game
- Random room search (matching?)
- Friend feature
- Profile pictures as achievement rewards
- Mnemonic phrases for joining room

User Interface Requirements

Login

Sign up

Login

Sign up

email:
id:
password:

✅ 로봇이 아닙니다.

Sign up

Profile Edit

New password:
Confirm password:
Nickname:
Profile picture:

🙂 find... upload

Submit

Profile

Nickname:
Total games:
Win rate:
Ladder ranking:
Achievements:

Edit

Create game

Room name:
Password(optional):
Game rule:
○
◉
○

Create

Lobby

Web Mighty 🙂 Current User

New game | Hall of fame

Game List
  5-Mighty "Hello"   Join
  5-Mighty "SNU"   Join
  6-Mighty "Anyone" Join
  ...
              1 2 3 ... 10

Room

User2   Game status   User3

User1   User4

Current User   Leave

Hall of fame

👑 1. User1
   2. User2
   3. User3

   23. Current User

Login / Sign up / Lobby / Profile / Profile Edit / Hall of fame / Create new game / Room

Transition is indicated with arrows.