

wordblast.io

CS307: Sprint 1 Planning Document - Team #19

Emilio Barradas, Andrew Zheng, David Long, Inbang Seo

Sprint Overview

Scrum Master

Andrew Zheng

Meeting Plan

Tuesdays and Thursdays at 7:30pm

Risks and Challenges

Since this is the first sprint, we must set up the frontend and backend. With a small codebase and many features to implement, things are bound to be a little hectic as there is a high potential for merge conflicts.

Sprint Details

Emilio Barradas

1. As a player, I would like to be able to create an account so that I can track my progress.
 - a. Create a simple authentication form on the website. (30 minutes)
 - b. Create authentication endpoints on the game server. (2 hours)
 - c. Implement authentication logic on the game server. (3 hours)
 - d. Implement account document creation on the database server. (1 hour)

Acceptance Criteria:

- Given that the authentication form is correctly implemented, a user should be able to type in a valid username and password.
- Given that the authentication process is correctly implemented, a user should receive a verification email.
- Given that account documents are properly created, a user should be notified that their account has been successfully created.

2. As a player in a private lobby, I would like to have a custom URL to give to my friends so they can easily join my game.
 - a. Create a game ID generator that produces unique URLs. (30 minutes)
 - b. Create a simple game page, where the URL of the page contains the game identifier. (1 hour)

Acceptance Criteria:

- Given that the game page is implemented correctly, it should have the correct URL that contains the game identifier.
- Given that the generated game ID is always unique, there should be no redundant URLs and game IDs can be reused after the game has been terminated.
- Given that the game page is implemented correctly, a user should be able to see, copy/paste unique URLs.

3. As a player, I would like the option to change my name while in the game lobby.
 - a. Within the game page, include a field where the player can change their name. (30 minutes)
 - b. Send new names to the game server through the game socket. (1 hour)
 - c. Update the player's name in the database and reflect the change on the frontend. (1 hour)

Acceptance Criteria:

- Given that the username field is correctly implemented, when a player changes the text of the form, the name above the player should change for the player.
- Given that the username field is correctly implemented, when a player changes the text of the form, the name above the player should change for all other players.
- Given that the username field is correctly implemented, when a player changes the text of the form, the client should send information to the game socket indicating a name change.

Andrew Zheng

4. As a player, I would like a username input form, so that I can login anonymously and immediately play the game.
 - a. Create an anonymous authentication form that only takes in a player's username that is tied to the user's session identifier. (4 hours)
 - b. Store the data in the database. (2 hours)

Acceptance Criteria:

- Given that the anonymous authentication form is correctly implemented, a user should be able to type in a valid username.
 - Given that the username is tied to the user's session ID, a user should be able to enter the game page.
 - Given that authentication form has been implemented, when a user changes their name, the name of the player should be changed on the game server.
5. As a player, I would like to chat with other players in the same game.
- a. Create a chatbox within the game page. (2 hour)
 - b. When a player types a message into the box and presses enter, send the message through the game socket. (3 hour)
 - c. On the game server, send the message to all other players connected to the game socket. (3 hour)
 - d. Store the message within game data. (2 hour)

Acceptance Criteria:

- Given the chat box has been implemented, when I send a message through the chat, the message should be displayed in the chat history for myself.
 - Given the chat box has been implemented, when I send a message through the chat, the message should be displayed in the chat history for other players.
 - Given the chat box has been implemented, when I send a message through the chat, the message should be inside the game document on the database server.
6. As a player, I would like the specified letter combination to be highlighted while players are typing so that it is easier to visualize.
- a. Create a system on the backend that checks when a user, while typing, has typed the specified letter combination, and if so, sends information to the frontend to highlight the letter combination. (5 hours)

Acceptance Criteria:

- Given the system is correctly implemented, while the current player is typing, the client should send messages to the game socket including the word the player is typing.
- Given the system is correctly implemented, while the current player is typing, the server should receive socket messages with the word the player is typing.
- Given that the system is correctly implemented, when a player is typing a word and types the given letter combination, those letters should be highlighted.

David Long

7. As a player, I would like to have the bomb indicate the letter combination as well as whose turn it is, by pointing it to that player.
 - a. Create a bomb in the middle of the game page. (30 minutes)
 - b. Place players around the bomb. They should be placed along the outline of a circle, equidistant from each other. (2 hours)
 - i. Create an arrow that points from the bomb to the player, indicating whose turn it is. (30 minutes)
 - ii. At the start of a player's turn, generate a letter combination on the game server, from a pool of letter combinations, and display it on the bomb. (1 hour)
 - c. After a player's turn is over, point the arrow to the next player, in a clockwise direction. (30 minutes)

Acceptance Criteria:

- Given that the bomb is implemented correctly, the bomb should point very clearly to the player whose turn it is.
- Given that the player placement is implemented correctly, players should be able to see themselves and everyone else around in the game around the bomb.
- Given that the word was generated successfully on the game server, when the word has been sent to the clients, the word should be displayed on the screen.

8. As a player, I would like a single player mode so that I can hone my skills.
 - a. Create a simple homepage on the website. (2 hours)
 - b. Create the request game endpoint on the game server. (2 hours)
 - c. Create private games on the game server. (3 hours)
 - d. Create the game join endpoint on the game server. (1 hour)

Acceptance Criteria:

- Given that the homepage is implemented correctly, a user should be able to join a single player game and redirect towards the lobby.
- Given that the single player lobby is implemented correctly, the user should be put in a game with only themselves.
- Given that the game is implemented correctly, the single player game should start when the user readies up.

9. As a player, I would like to lose a life whenever I am unable to come up with a valid word.
 - a. Create a timer that tracks the amount of time that a player has left to enter a word. (1 hour)

- b. Decrement the player's amount of lives and disable typing when the time period expires. (2 hours)
- c. Send a notification indicating that the player has failed to enter a word. (30 minutes)

Acceptance Criteria:

- Given that the timer is implemented correctly, the user should be able to clearly see the amount of time left to enter a valid word
- Given that the timer is implemented correctly, the user should no longer be able to enter any more characters when the time limit is up.
- Given that the notification system is implemented correctly, a user should be able to see that they have failed to enter a valid word.

Inbang Seo

- 10. As a player, I would like a visual representation of which letters I have used so that I can track my progress towards an extra life.
 - a. Add a bar of letters at the bottom of the game UI containing all letters of the alphabet (1 hour)
 - b. Add backend logic that checks whenever a letter has been used, and sends that list to the database to update (2 hours)
 - c. Update the bar of letters by greying out letters that have been used by the player, after each word the player has typed (2 hours)

Acceptance Criteria:

- Given that the bar is implemented correctly, a user should be able to see the bar that contains all letters of the alphabet.
- Given that the bar is implemented correctly, when a user uses a letter, the letter should grey out.
- Given that all letters of the alphabet grey out, a user should be able to receive an extra life.

- 11. As a player, I would like to enter a game lobby before the game starts so I can see who is ready to play.
 - a. In the game page, display the lobby screen if the game has not started. (2 hours)
 - b. Include a button on the game page which players can click on to ready up. (30 minutes)
 - c. Send a ready up message through the game socket once someone has pressed the button. (1 hour)

Acceptance Criteria:

- Given the home page has been implemented, when I visit the game page URL, the lobby page should be visible.
- Given the home page has been implemented, when I click on the ready up button, the button should change state, indicating that I have readied up.
- Given the home page has been implemented, when I or any other player in the lobby clicks on the ready up button, a status indicator above the player's name should be in the ready state, indicating that the server acknowledged the player is ready.

12. As a player, I would like the game to start once everyone in the game lobby has readied up.

- a. On the game server, check if the number of readied up players equals the number of players inside the game. (30 minutes)
- b. If it is equal, start the game. If it is not, do nothing. (30 minutes)

Acceptance Criteria:

- Given that all other players are readied up, when I click on the ready up button, the game should start.
- Given that all other players are not readied up, when I click on the ready up button, the game should not start.
- Given that the game has started, switch to the in-game screen of the game page.

Remaining Backlog

- ~~1. As a player, I would like a username input form, so that I can login anonymously and immediately play the game~~
- ~~2. As a player, I would like to have the bomb indicating whose turn it is, by pointing it to that player.~~
- ~~3. As a player, I would like the specified letter combination to be highlighted so that it is easier to visualize.~~
4. As a player, I would like a “play with friends” option so that I can join a game lobby with friends.
- ~~5. As a player, I would like the option to change my name while in the game lobby.~~
- ~~6. As a player, I would like to enter a game lobby before the game starts so I can see who is ready to play.~~
- ~~7. As a player, I would like the game to start once everyone in the game lobby has readied up.~~
- ~~8. As a player in a private lobby, I would like to have a custom URL to give to my friends so they can easily join my game.~~
- ~~9. As a player, I would like to be able to create an account so that I can track my progress.~~
- ~~10. As a player, I would like to lose a life whenever I am unable to come up with a valid word.~~
11. As a player, I would like to gain a life when I use all letters of the alphabet at least once.
- ~~12. As a player, I would like a visual representation of which letters I have used so that I can track my progress towards an extra life.~~
13. As a player, I would like to be shown the definition of a word after it has been submitted.
- ~~14. As a player, I would like a single player mode so that I can hone my skills.~~
- ~~15. As a player, I would like to chat with other players in the same game.~~
16. As a player, I would like to be able to play in languages other than English.
17. As a player, I would like to gain more XP after each successful word I type.
18. As a player, I would like to be able to view my game statistics and see a summary of my games, including my average word length, most used words, and average typing speed.
19. As a player, I would like to be able to see my user level.
20. As a player, I would like to be able to view the leaderboards page which hosts a list of the top performing players.
21. As a player, I would like copy/pasting to be disabled so that the game is fair.
22. As a player, I would like the option to set my custom game as public, so that random players can join.
23. As a player, I would like to have a tutorial/walkthrough option.
24. As a player, I would like to choose background themes.
25. As a player, I would like to be able to input custom words into the word pool.
26. As a player, I would like the option to play with players who are the same level as me.
27. As a player, I would like to be able to customize the settings of a game.
28. As a player, I would like to be able to view the game settings while in game.

29. As a player, I would like to have background music and sound effects.
30. As a player, I would like the option to toggle a profanity filter in the actual game and in the chatroom.
31. As a player, I would like to be able to see the amount of players currently online.
32. As a player, I would like to have the ability to toggle between light and dark mode.
33. If time allows: As a player, I would like to be able to earn credits that can be spent in an in-game store.
34. If time allows: As a player, I would like to choose an avatar in the lobby and be able to buy more avatars in the store.
35. If time allows: As a player, I would like the website to be responsive, so that I can play on any screen size.