

Polybius

Team 9

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Sprint Overview

For this sprint we will finish the friends feature as well as the messaging feature. We will also start implementing gameplay mechanics, such as allowing users to look up games near them, to create games, and to join different game lobbies to play with other users. Users will be able to select the game they want to play, look at a list of lobbies that list the distance of the host to them, as well as the host's username, and then select which lobby they want to join. Finally, we will also work on Pong as a playable game. We will be using MapBox for the map UI, as well.

Scrum Master: Leo Liu

Meeting Plan: We will be meeting every Tuesday and Thursday after 2:30pm and 3:30pm, respectively.

Risks and Challenges

We will most likely encounter some more networking issues with loading users into lobbies and syncing gameplay (entity interpolation). Ensuring that the GPS locations are precise enough will also be another challenge.

Sprint Details

User Story 1:

As a user, I want to add other players as a friends so that I can build established connections

Task Table:

Task Number	Description	Time	Task Owner
1	Implement adding user to a friend list in the webserver	1 hours	Thomas Simons
2	Create UI to add user as friend	3 hours	Christopher Sculley
3	Unit Test UI and smartfox request	4 hours	Lucas Hahn
4	Unit Test update database	4 hours	Lucas Hahn

Acceptance Criteria:

- Given that the friends functions work, a user can see their friends
- Given that the friends functions work, a user can add friends
- Given that the friends functions work, a user can remove a friend

User Story 2:

As a user, I want to be able to search for other users so that I can connect with others

Task Table:

Task Number	Description	Time	Task Owner
1	Pull online users from database	1 hours	Thomas Simons
2	Format SQL query as array and send to client	2 hours	Thomas Simons
3	Create user search UI	3 hours	Leo Liu
4	Connect user search UI to friends system	2 hours	Leo Liu
5	Unit test adding friends and searching users	4 hours	Leo Liu

Acceptance Criteria:

- Given that the search users functions work, a user can see all online players
- Given that the search users functions work, a user can find a specific user
- Given that the search users functions work, a user can see basic stats about another user

User Story 3:

As a user, I want to host games to play with nearby players so that I can meet new people

Task Table:

Task Number	Description	Time	Task Owner
1	Make game creation UI	4 hours	Christopher Sculley
2	Connect game creation UI to server	4 hours	Christopher Sculley
3	Create Game Database	3 hours	Lucas Hahn
4	Develop server-side scripts to host lobbies	3 hours	Thomas Simons
5	Fetch available lobbies for the client	3 hours	Leo Liu

Acceptance Criteria:

- Given that games can be hosted, games will appear to other users
- Given that games can be hosted, players can join a newly created game
- Given that games can be hosted, the owner can remove the game from view

User Story 4:

As a user, I want to be able to find games around me so that I can easily join new games using a map

Task Table:

Task Number	Description	Time	Task Owner
1	Make map UI	6 hours	Christopher Sculley
2	Configure game database to include map markers	1 hours	Lucas Hahn
3	Connect map UI to database	3 hours	Christopher Sculley
4	Device Test map marker placement	3 hours	Lucas Hahn

Acceptance Criteria:

- Given that a map UI is functional, users should be able to see nearby game locations on a map
- Given that a map UI is functional, users will be able to navigate in the real world and see their position update on the map
- Given that a map UI is functional, users will be able to zoom and pan the map

User Story 5:

As a gamer, I want to play Pong using augmented reality against other players

Task Table:

Task Number	Description	Time	Task Owner
1	Make server script for syncing game objects	10 hours	Thomas Simons
2	Make server script to handle user inputs	4 hours	Thomas Simons
3	Make UI for pong	2 hours	Leo Liu
4	Make assets for pong	2 hours	Leo Liu

Acceptance Criteria:

- Given the pong minigame scripts work, motion of objects will be synced between users
- Given the pong minigame scripts work, users can control their pong barrier
- Given the pong minigame scripts work, users will be able to see a live scoreboard in game
- Given the assets are finished, players will be able to play Pong with nice assets
- Given the Pong UI is finished, players will be able to see the current score of their Pong game

User Story 6:

As a developer, I want a server side system to control the current minigame of a lobby

Task Table:

Task Number	Description	Time	Task Owner
1	Make server script to handle mini game controls	6 hours	Thomas Simons
2	Make script to sync players	2 hours	Thomas Simons
3	Unit test joining games and playing against another person	4 hours	Leo Liu

Acceptance Criteria:

- Given that the control system works, the control system will start the game when host sends start request
- Given that the control system works, the control system will sync statistics across users
- Given that the control system works, the control system will keep track of score and win conditions

User Story 7:

As a user, I want to be able to set my social and UI display preferences through a comprehensive settings menu.

Task Table:

Task Number	Description	Time	Task Owner
1	Create social options UI	4 hours	Christopher Sculley
2	Connect social options UI to server	3 hours	Christopher Sculley
3	Allow users to customize client settings	3 hours	Leo Liu
4	Unit test client settings	4 hours	Leo Liu
5	Bring users to profile page if they have logged in already	2 hours	Leo Liu

Acceptance Criteria:

- Given that a comprehensive settings menu is functional, users will be able to change the visibility of personal data to others
- Given that a comprehensive settings menu is functional, users will be able to see what personal data is visible to others
- Given that a comprehensive settings menu is functional, users will be able to customize their client's settings

User Story 8:

As a user, I want a messaging system to message my friends so that we can continue to communicate outside of matches

Task Table:

Task Number	Description	Time	Task Owner
1	Implement database calls with client message list	3 hours	Christopher Sculley
2	Make server script to send and get messages	2 hours	Thomas Simons
3	Unit test messaging scripts	4 hours	Leo Liu

Acceptance Criteria:

- Given the messaging works, users can send messages to other users
- Given the messaging works, users can get messages sent to them
- Given the messaging works, users will receive notification when a private message was sent

User Story 9:

As a developer, I want extensive documentation on the database calls and the server side scripts

Task Table:

Task Number	Description	Time	Task Owner
1	Document server minigame scripts and database calls	3 hours	Thomas Simons
2	Document Database values	3 hours	Lucas Hahn

Acceptance Criteria:

- Given that documentation exists, then each of the server scripts will be described
- Given that documentation exists, web server call parameter and return objects will be documented
- Given that documentation exists, database values for each database will be listed

User Story 10:

As a user, I want to use the current build of Polybius on Android and IOS devices

Task Number	Description	Time	Task Owner
1	Build and Test Android Devices	4 hours	Lucas Hahn
2	Build and Test iPhone Devices	4 hours	Leo Liu

Acceptance Criteria:

- Given that an application successfully builds on an Android, current functionality should be operational
- Given that an application successfully builds on an IOS, current functionality should be operational
- Given that an application successfully builds on IOS and Android, both devices should have proper communication between them

Remaining Functional Requirements (backlog)

- ~~● As a user, I want to be able to create an account so that I can have a personalized experience~~
- As a user, I want to add other players as a friends so that I can build established connections
- ~~● As a user, I want to have a profile that others can see so that others can connect with me~~
- As a user, I want to see many statistics about the games I've played so that I can track my performance
- ~~● As a user, I want to be able to search for other users so that I can connect with others~~
- ~~● As a user, I want a messaging system to message my friends so that we can continue to communicate outside of matches~~
- ~~● As a user, I want to be able to find games around me so that I can easily join new games using a map~~
- ~~● As a user, I would like to use augmented reality through my mobile phone to view virtual objects in the real world~~
- ~~● As a user, I want to host games to play with nearby players so that I can meet new people~~
- As a user, I want bonuses for meeting up with new people so that I will be encouraged to meet others
- As a user, I want to send challenges to players to beat my high score so that I can challenge others
- ~~● As a user, I want a easy to use interface that feels satisfying to use so that I will enjoy using the application~~
- As a gamer, I want to keep track of my highscores so that I can see my progress and share my achievements
- As a gamer, I want to see the top players of any minigame
- As a gamer, I want to play this game multiple times so that I can meet new people
- As a gamer, I want to play Connect 4 using augmented reality against other players
- ~~● As a gamer, I want to play Pong using augmented reality against other players~~
- As a gamer, I want to play paper toss using augmented reality against other players
- As a gamer, I want to play tic tac toe using augmented reality against other players
- As a gamer, I want to spectate a game that is already in progress so that I can participate in the experience
- As a gamer, I want to be able to create a tournament so that I can encourage more collaboration than normal
- As a gamer, I want to be able to play in a tournament so that I can compete in larger and rarer events than normal
- As a user, I want to be able to join a community for the game so that I can feel included
- As a user, I want to be able to give feedback on the game so that it will be heard and considered
- As a user, I want to be able to report other players if I feel they exhibit inappropriate behavior so that I can avoid interacting with them

- As a user, I want to be able to find specific minigames so that I can play the games I like the most
- ~~As a user, I want to use the current build of Polybius on Android and IOS devices~~
- ~~As a developer, we would like to work in a team environment where current code is easily accessible and modifiable~~
- ~~As a developer, we would like to produce detailed documentation for each section of the project~~
- ~~As a developer, I want to be able to use an Android phone to demo our progress~~