

Product Backlog

Problem Statement

Doing activities with friends requires a lot of preparation: meeting up, organizing the activity, scheduling, etc. Our MiniMap app aims to streamline the entire experience, from finding friends to playing games enhanced with video game technology. The inclusion of MiniMap in assisting these games will allow them to be played across larger areas, such as a college campus.

Background Information

In today's world, there is no way to play team games outside and see the rest of your team's location when obstructions hinder one's line of sight. Our app will be for anyone who wants to play outdoor games with their friends or see their locations. There are many apps already created both on the Google Playstore and Itunes that can find a person's friend's location and display it back. Our application shall differ from others because we will use the friend finding idea to develop multiple games that users can play. Some examples include capture the flag, assassins, marco polo, slender, and sardines. Our app offers an alternative to playing video games, because it encourages people to exercise outside with many people while still using technology to augment and enhance the user's experience when gaming. Previous apps allowed you to find one friend's location, but our app will allow you to find multiple peoples location and use this information to create fun games to enjoy with others.

Requirements

The following is our list of functional and nonfunctional requirements:

Functional Requirements

1. As a user, I would like to link an account to social media sites to add friends who also use the app.
2. As a user, I would like to find my friends in real time.

3. As a user, I would like to be capable of finding multiple friends simultaneously.
4. As a user, I would like to view the relative position of my friends on a heads up display.
5. As a user, I would easily like to organize people into friend circles.
6. As a user, I would like to be able to start a game with friends.
7. As a user, I would like to be able to select a game from multiple game types.
8. As a user, I would like to be able to plant virtual beacons during a game.
9. As a user, I would like to be able to plant different kinds of beacons.
10. As a user, I would like to be able to play Capture the Flag.
11. As a user, I would like to be able to play Assassins.
12. As a user, I would like to be able to play Marco Polo.
13. As a user, I would like to be able to play Slender.
14. As a user, I would like to be able to play Sardines.
15. As a user, I would like to be able to leave games.
16. As a user, I would like to be able to draw on the map for my teammates to see (if time allows).
17. As a user, I would like to have a “speed dial” of my most frequently interacted with friends (if time allows).
18. As a user, I would like to be able to block certain people (if time allows).
19. As a user, I would like to be able to plant a beacon on a map that I can view with my camera as augmented reality (if time allows).
20. As a user, I would like to be able to see a beacon over the heads of my friends that I can view with a camera as augmented reality (if time allows).
21. As a team member, I’d like to see where the rest of my team is.
22. As a developer I would like to be able to make the personal information of our users secure.
23. As a developer I would like to have a central server which handles the distribution and management of user coordinates.
24. As a developer, I would like to be able to easily add new games to the application.
25. As a developer, I would like to be able to modify the map for a game by adding markers.

Non-functional Requirements

1. **Responsiveness:** The games should be able to quickly load games as well as give real time updates to in-game events and player movements..

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2. **Modularity:** The application should be easily expandable so that future additions of new games or features is easy. This involves a framework for game applications as well as a framework for easily expanding a main menu.
3. **Security:** Users should be able to use the application without worrying about their location or personal information being accessed by strangers.
4. **Reliability:** The application should be able to give precise location information as well as almost real time updates to the location of the user and other players in the games.
5. **Efficiency:** The application should operate efficiently to the point that it does not significantly affect the battery life of the user's device.
6. **Aesthetics:** The application must have a user interface that is both clean in appearance and responsive to user input.