

# Splatoonio: Feature List

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Game Board: The pixel map data structure that tracks enumerated pixel color

# 1 Server

Server Team: Eric Michalak, Deacon Seals

## 1.1 Tasks

- Create client/server communication protocol
- Create games with unique IDs
  - Add players to games with unique IDs (added to smallest team)
  - Add players via group lobbies
- Manage account information
  - Leaderboards
  - Achievements
  - Player Level
  - Statistics (items used, accuracy, players hit, total distance, total painted)
  - Unlockables (new items, etc)
- Maintain game state
  - Out of bounds (lat/long)
  - Color of the *Game Board* map pixels
  - Active players and player information (held items, brush size, name)
  - Game clock
- Update *Game Board*
- Multiple concurrent games
- Generic API calls (winning team, percent controlled)

## 2 Mobile

iOS Team: Adam Evans, Illya Starikov

Android Team: Ian Howell,

### 2.1 Tasks

- Plays game
  - **Ian:** Draws main display map in background - potentially fancy map (stretch goal)
  - **Adam:** Paint board pixels slightly transparently over the map
  - Draw minimap displaying only the board (not map)
  - Display location of other players with arrows on the board edges or on the minimap (stretch goal?)
  - **Ian:** Track the user's location/direction and move/rotate accordingly
  - Updated game state from server
- Query server for available game by user's location
- Query server to create/join a public game
- Query server to create/join a private game
  - Custom map and boundaries
  - Custom item spawns
- Tweak settings

## 3 Game Mechanics

### 3.1 Games

- 3 teams per game: red/green/blue
- Game duration: 10/20/30 minutes
- Team with the most points wins

### 3.2 Player

- Paints ground under player with team's color
- brush size slowly increases with distance

### 3.3 Items

- Players collect items
  - Items spawn randomly?
  - Random Items every  $n$  seconds
  - Select an item every  $n$  seconds
- Items can damage players, resetting their brush size
- Bomb: paint a circle anywhere on the map by tapping the screen
- Green Shell: throws a shell which travels in a line painting everything under it

### 3.4 Scoring System

- Teams get points based on percentage. (10% = 10 points)
- Teams get additional points for controlling a marked region (CompSci Building = 10 additional points)