Splatoonio Feature List

A design document detailing all possible features for Splatoonio. Created and maintained by Adam Evans, Michael Harrington, Ian Howell, Eric Michalak, Luke Parton, Deacon Seals, and Illya Starikov.

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

2 Server

Server Team: Eric Michalak, Deacon Seals, Michael Harrington

2.1 Tasks

- **Entire team (done):** Create client/server communication protocol

- **Deacon, Michael:** Research server frameworks

- **Eric:** Create games with unique IDs
  - **Eric** 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)

3 Mobile

iOS Team: Adam Evans, Illya Starikov
Android Team: Ian Howell, Luke Parton

3.1 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
  - **Luke:** Update game state from server
  - Game Features (see section 3)
- **Illya:** Stub out server calls
- 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

4 Game Mechanics

4.1 Games

- 3 teams per game: red/green/blue

- Game duration: 10/20/30 minutes

- Team with the most points wins

4.2 Player

- Paints ground under player with team's color

- brush size slowly increases with distance

4.3 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

4.4 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)