Milestone 3.1 Documentation

Overall design of your network

- How are you thinking about the client-server system?
    - We will have a basic P2P model: the player who first enters the lobby starts the server and every player that joins is a new client
- What information will be reliable/unreliable, and when will you send it?
    - Reliable: acorn count, acorn state (active/inactive), players joining/disconnecting
    - Unreliable: player position and movement, animations, sfx, particles
- What is the user flow for joining/leaving a game?
    - players can enter or exit the game at any time
        - all other players are notified when a player enters or exits
        - when a player exits, all their acorns they collected respawn in the level

Software architecture and plan

- How does you structuring of scenes/classes help you implement networking?
    - The current structure of our player scene should enable us make instances for each player with a few modifications to the basic_movement script
- How are you keeping track of game state, and how will the client machine know when that state changes?
    - Our game state is tracked in the game_state script, which will signal the client when the state changes
- Estimate how much work it'll take to incorporate each of the required capabilities.
    - Multiple Game states- Easy
    - Lobby system- Medium
    - Player changes- Hard
    - Game End Conditions- Easy
- If it looks like you won't be able to meet your deadline, how can you scale back during the second week?
    - Extra features, like player interaction and acorn respawning

Division of labor

- In terms of the delivered capabilities, who is responsible for which parts of the code?
    - Start menu - select singleplayer or multiplayer- Clinton
    - Lobby system- Everyone
        - UI- Clinton
        - Setup server
        - Player joining/leaving
        - Start the game
    - Player joining during game- Everyone

    - Player leaving during game- Everyone
    - Kick everyone out of the game once game is over- Amber
    - Game end condition- Amber
    - Multiplayer SFX - Yijin
    - Multiplayer particle system- Amber
    - GUI for everyone's acorn count- Clinton
    - List of spawn locations for acorns and players - Yijin
    - Multiplayer player position and movement - Gahwon
    - Multiplayer acorn retrieval and trap interaction - Gahwon
    - [Extra Feature] Whack other players with your tail to remove their acorns - Gahwon
    - [Extra credit] Figure out how animations work in Godot- Amber
    - [Extra credit] Figure out how to replicate animations- Amber
    - [Extra credit] Add functionality for 3-4 players - Everyone
- What is your plan for meeting up?
    - Saturday at 12
    - Communication using groupme
    - When needed