FARMING BULLET HELL PITCH

9-Byte Warriors

Team Members & Allocated Roles

Kyle Programmer, Team leader	Juliusz Programmer, Scrum Master	Alvin Programmer	Charlie Programmer	Rece Programmer
James Developer	Will Developer	Glen Developer	Mozamil Developer	Eleftherios Developer

Overview

Graphics	2D (Isometric)
Genre	Farming, Bullet Hell, Roguelike/lite
Number of Players	Singleplayer
Engine Features **(C++)**	- Input - Rendering - Collisions - Sound - Memory Management - Tile maps - Level Editor - Load/Save - Particle Emitter - Entity Spawner - Sprites and Animation - Vector Maths

Game Pitch: Overview

- The game is an arcade bullet hell that has an underlying theme of a farming simulator. This means the player will be planting crops that will turn into the enemies, with the goal for the player to kill the enemies to harvest them to eventually beat the final boss and aim for the best scores.
- The game will consist of 5 days over a day/night cycle, with day-time consisting of a "preparation phase" and the night-time being the "combat phase".
- After the 5th night, a boss will appear, and the player will need to defeat them to win that run.
- If the player dies, their score will be saved into the leaderboard and they will have start over a run from the start.

Game Pitch: Core gameplay loop

- In the day-time "preparation" phase the player will be able to buy upgrades and plant the mandatory enemies with an option to buy and plant a choice of enemies for a greater cash returns, this however will also increase the challenge.
- Night-time acts as a "combat phase" and so the vegetables will get up from their roots and attack the player, firing bullets and having unique bullet patterns/attacks per vegetable, and this will count as harvesting the vegetables, giving you cash per kill.
- "Combat phase" is time-limited, after the timer ends, the player will be chased down by the invulnerable enemies, player will ultimately lose unless he will manage to kill all the crops before he will get killed.

Game Pitch: Inspiration

- As an inspiration that sparked the idea of this farming bullet hell, we came across Atomicrops:
- In Atomicrops, the player must protect their crops from Fallout-esque creatures and tend to the crops at the same time.

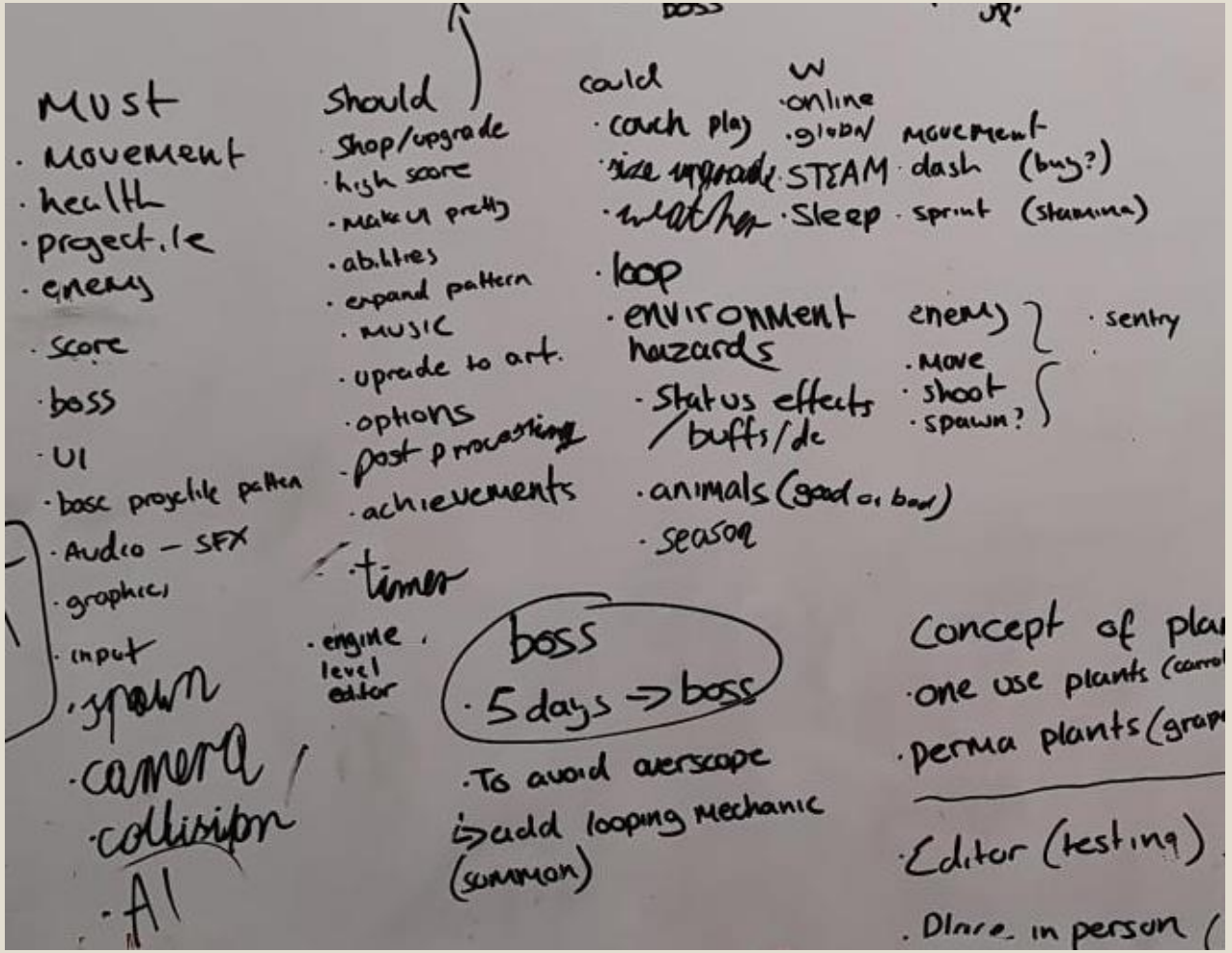
Engine Requirements

- The engine should be able to:
  - Handle inputs
  - Handle rendering
  - Handle collisions
  - Handle and play multiple sounds
  - Have memory management
  - Have a level editor
    - Handle and apply tilemaps in layers
    - Free-form placement of objects on top of the tilemap
  - Handle loading/saving the game
  - Handle particle emitters
  - Handle spawning entities
  - Handle sprites and animations
  - Handle vector maths

- The tools the engine will use are:
  - DirectX 11
  - DirextX Tool kit
  - Win32
  - Dear ImGui
  - xAudio2
  - Nlohmann JSON
  - Open Asset Import Library (Assimp)

Project Mangement

- The overall project timeframe is 6 weeks, which is not a long amount of time and 0 budget.
- Keeping these in mind, we've set up a communications via MS teams and additionally will/are holding SCRUM meetings every day to keep up with progress made, and to keep the scope in check have set up a MoSCoW:
- In addition, to make sure the game gets produced we've allocated 3 weeks for pre-production being the initial design, baseline engine coding, game prototyping and more. This leaves the final 3 weeks to the game's development.



Project Management Plan

- Kanban:
  - For a workflow we will be using Scrum, as splitting this project up into sprints will prove useful in the group with each sprint being short goals that as a team can be met helps to increase overall production in the project and keep it in check.
  - This Kanban and workflow will be good tools to keep the GDD, TDD and Github wiki completed on time as well as the overall project.