Project Beta Description

Galactic Guardians

Overall Gameplay Description:

Galactic Guardians is a tower defense game; the objective is to place down towers to defeat enemies. Enemies spawn in waves, increasing in difficulty and quantity each iteration. The player has limited time to place towers before enemies start spawning. Placing towers costs currency, which is set at the start of the level, increasing when enemies are defeated. Towers will fire at enemies, targeting the enemy closest to them. The player can apply upgrades to the towers to increase range, how many bullets are fired, and the speed at which bullets travel. Tower upgrades also cost currency. If an enemy reaches the endpoint on a map then the player will lose a certain amount of health. If the player has zero health then they lose the game, and an end screen will be displayed. Once all enemies in a wave have been defeated or moved off the screen a new wave will be started. After all waves have been completed in a level, a new level will begin. There are three levels in the game. There is also a small tutorial to introduce the core concepts of the game. The player is able to go to a certain level if they desire when starting the game, by default they start on the first level.

Intended Users:

Galactic Guardians has been specifically designed with a broad audience in mind, we rate it E to ensure it is suitable for everyone. This game may be suitable for ages six and up, the game maintains an environment characterized by minimal violence, offering a captivating blend of cartoon aesthetics, fantasy elements, and comic humor. The inclusion of these features not only ensures an entertaining and immersive experience for younger players but also resonates with individuals of all age ranges. *Galactic Guardians* strives to be an inclusive and enjoyable gaming experience, making it a captivating choice for players of varying backgrounds and interests.

Technologies:

- P5JS
- CSS Styling
- ES6 Modules
- GitHub Projects
- Fl Studio 21 (Music)
- Krita, Photoshop, Spine(Static Images & Animation)
- Canva (Graphic Design)

Challenges:

- **Logistics:** A classic struggle, aligning the schedules of 15 people can be difficult. However, we combatted this from an early stage through subdividing the group into sub-teams, and then effectively communicating online and holding weekly meetings at a time that worked for all.
- **Skill sets:** The team had a wide variety of skill sets. In a way, this was an advantage because the strongest programmers did what they were good at, and those good at art could contribute that way, etc.

What we learned:

- **Project management:** We were able to effectively project manage this semester, but it was a learning experience, and we have a lot of room to improve.
- **Technical collaboration:** We incorporated code reviews, pair programming, and other methods of collaboration in this project, and learned the value of collaboration.
- **Agile development:** By embracing Agile development, we followed an iterative approach that really improved our process.
- **Source code management with GitHub:** GitHub is an industry standard for source code management, so learning it in a

group project environment was a great opportunity for us to prepare for the real world.

- **A lot of JavaScript:** JavaScript is an important language to know when it comes to software engineering. For many of us, this was a much needed introduction to it!

Project Page

https://github.com/dominicf2001/project-beta

Playable Game on GitHub Pages

https://dominicf2001.github.io/project-beta/

Team Beta:

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