Project Title: Bullet Hell

Group Members: Lewis Cook Jakarta International School

Jakarta, Indonesia

Jan Lin American Heritage School

Plantation, Florida

Daniel Olis Ridgeview High School

Orange Park, Florida

Wesley Wang Cupertino High School

Cupertino, California

Everyday more games are made with the intention of entertaining those who play them. Bullet Hell, a sub-genre of video game, is a game where the player must dodge projectiles thrown at them by various enemies and ultimately beat the final boss to complete the game. Due to their difficulty and simplicity they have recently become extremely popular. The motivation behind this project was to create a well-designed game with entertainment value while gaining programming experience.

A program was planned, written, and tested in order to construct a Bullet Hell game from scratch using the Python programming language with the objective of gaining group programming experience in mind. The games difficulty, system compatibility, and ease of playability were tailored to the Catapult audience. The program was coded in such a way that users could interact with the game elements via their computer. Users can click the start button in the menu to initiate gameplay. Using the keyboard, the user controls the movement of their playable character. By pressing spacebar, the ship then fires bullets that destroy enemies upon collision. If the character is hit by an enemy bullet they lose one of three lives and temporarily gain invincibility so they can recover. The game finishes when the user defeats the boss, a final enemy character.