Work Log

**You are required to keep a work log on what tasks are completed daily. You should clearly identify what was completed each day and who did what work. Be specific.**

Tuesday, May 31, 2022

* Chose to create the game, Space Invaders
* Brainstormed ideas for the game as well as possible coding solutions
* Recreating given components of GamePanel and Game Frame

Wednesday, June 1, 2022

* Made the Bullet Class, worked on making the player shoot and resetting bullet location after each shot **(Sabagan)**
* Made the player class and made player move left to right on the screen based on user controls, as in arrow keys **(Both)**

Thursday, June 2, 2022

* Made the Alien Class, made one row of 6 rectangles that sit still, to test bullets and aliens. **(Sabaoon).**
* Made collision detection for the aliens and bullets so that when aliens are shot, the aliens disappear from screen **(Sabaoon).**

Friday, June 3, 2022

* Made the Background class which sets the background image for the game **(Sabagan).**
* Made the aliens move from left to right, in unison without colliding with each other, set the positions of the aliens to make sense. Also, made the aliens using rectangles.**(Sabaoon)**
* Replaced the shapes used by the aliens and players with images of the space ships used by the players and invaders **(Sabagan).**
* Made a main menu in Game Frame, where you hit a button to close the main menu window and open the game window **(Sabagan).**
* After combining our work together, the collision detection for the aliens with the bullets has stopped working due to our different coding styles and another attempt must be made to restore its glory! **(both).**

Saturday, June 4, 2022

* Bringing back the “intersects” in collision detection to make the aliens and bullet disappear in combined class. Make sure to reset the location of both objects outside of the screen **(Sabagan).**
* Adjusted the bullet, keypressed and keyreleased. Made sure that the key pressed only worked if the bullet was outside of the window (this means the bullet y- coordinate was less than 0). keyPressed resets location of bullet to player location at the time the player wants to shoot. Keyreleased will allow player to shoot **(Sabagan).**

Monday, June 5, 2022

* Made the aliens shoot the player and subtracted 1 from total health when this happened **(Sabagan).**
* Increased efficiency in the code by replacing the long lines of if statements with a 2D array and a nested for-loop with a single if-statement.**(Sabagan).**
* Added a third row of aliens increasing the amount from 12 to 18, then later on adjusted the positions and movements of the bots to make space for 2 more bots in each row, increasing the total number of aliens to 24 **(Sabaoon).**
* Implemented a score system in the game which is currently displayed on the top right of the screen. 5 points for each alien eliminated in the first row, 10 points for second row, and 15 points for third row. **(Sabaoon).**

Tuesday June 6, 2022

* Changed the code for the aliens moving into 2d arrays. **(Sabagan)**.
* Fixed health **(both).**

Wednesday-Friday

* Maintenance (fixing bugs in the game)
* Attempts to make aliens move vertically **(both).**
* Made adjustments to the main menu **(Sabagan).**

Monday, June 13, 2022

* Added a boss in the game that moves side to side and spawns when all aliens are shot **(Sabagan)**
* Implemented a feature that adds difficulty: when aliens are shot for the first time, an alien changes to another alien and when aliens are shot for the second time they are destroyed, (2 lives). **(Sabagan)**
* Simple end condition has been displayed **(Sabaoon)**
* Fixed bugs in the code that made aliens move randomly and appear out of nowhere **(Sabaoon)**
* Made aliens move vertically **(Sabaoon).**

Tuesday, June 14, 2022

* Adding music while the player is playing **(Sabagan)**
* Made the boss shoot **(Sabagan)**
* Created collision detection for the boss and the player bullets **(Sabagan)**
* Added a health bar for the boss and the name tag that lets you know your dealing with the boss **(Sabaoon)**
* Replaced the numeral system for player lives with a system of hearts **(Sabaoon)**

Wednesday, June 15, 2022

* Handed in the first draft

Friday, June 17, 2022

* Changed the backgrounds so that they transition based on level of the program **(Sabagan)**
* Changed invaders avatars to look more like aliens rather than spaceships **(Sabagan)**
* Made a clear end conditions (game over screen) and win condition (victory screen) **(Sabagan)**
* Made power ups appear when a special alien moving horizontally at the top of the screen is shot. This only happens once. **(Sabaoon).**

Sunday, June 19, 2022

* Made power ups appear twice, once after the score is equal to 180 and another after Score is equal to 360 **(Sabaoon).**
* Made sure there was a 50/50 chance of either getting an extra life or a shield that follows the player and lasts for one hit, upon shooting the power up. **(Sabaoon).**
* Added four aliens in the boss battle, (2 on each side), that only go away once the boss is defeated (2 go away once boss is at half his health and the rest when you defeat the boss). **(Sabaoon).**
* Increased boss health to 10, added a second health bar that appears under the first one due to the increased health.**(Sabaoon).**
* Made a class for sound effects and implemented it in the GamePanel class so that you can hear when the player is shot, alien is shot or boss is shot **(Sabagan)**
* Looped the music that plays in the background of the game and adjusted volume so that it doesn’t interfere with the sound effects **(Sabagan)**

Monday, June 20, 2022

* Combined code from Sabagan and Sabaoon’s game classes to form the final game
* Figured out a solution for boss bullet
* Made edits to the code for Boss Health and Health class to increase efficiency **(Sabagan)**
* Changed the icon for the shield and changed its height and y coordinate **(Sabagan)**