

Module	Engineering1 (Eng1) - COM00019
Assessment Title	Assessment 1, Cohort 2
Team	Dragon Boat Z (Team 18)
Members	Robert Dalglish, Benjamin Jenner, Joseph Lonsdale, Richard Upton, James Wilkinson, Xinyi Zhang
Deliverable	Implementation

IMPLEMENTATION - PART B

The following features required for Assessment 1 have not been fully implemented:

- **Opponent Artificial Intelligence** (Requirement ID: FR_AI)
 - In its current state, the AI method controlling the Opponent objects is functional, but not perfect.
 - Opponents can glitch occasionally, jumping from side to side, or not colliding with Obstacles properly.
- **Boats need proper balancing** (Requirement IDs: UR_BOATS, FR_UNIQUE_BOATS)
 - All boats were balanced prior to implementation, for example, to ensure that the fastest Boat has the least durability. These theoretical statistics can be seen on the Menu Screen.
 - However, the translation of these theoretical statistics to the values used in the code needs improving via play testing, as certain boats consistently perform better than others.
- **Robustness has no impact on the game** (Requirement IDs: UR_LOSS, FR_COLLISIONS)
 - Each Boat has a unique Robustness statistic, which affects how its health deteriorates as it collides with Obstacles.
 - However, when a Boat's health reaches 0, nothing happens. So Boats being destroyed, and the game ending if the Player is destroyed, is not currently implemented.

The following features are not requirements but were considered as part of the design process but as yet are not implemented:

- **Implementation of Rock Obstacles**
 - A sprite has been developed for Rocks, but a Rock class (that would inherit from Obstacle) has not been implemented.
- **Adding variety in Log Obstacles**
 - A sprite has been developed for two sizes of Logs, but our current Log class only uses the "logBig sprite".
 - The Log class could be updated to allow for Logs to be big or small. Their height attributes would need to change depending on the size.
- **Goose Obstacles need to change sprite when they change direction**
 - Currently, Geese can move East, West, and South, but their sprite is locked to "gooseSouth", despite the other sprites having been created.
 - This could be changed so that the sprites (and width and height) change depending on the direction attribute of the Goose object.
- **Implementation of window resizability**
 - Currently, the window size of the Dragon Boat Z game is locked at 1080x720.
 - The ability to change the window size would be an ideal feature for future marketability.
 - For this to be implemented, "config.resizable" in DesktopLauncher class will need to be true, and any explicit coordinates should be changed to be relative to the screen size.