**Space Invaders Planning**

This document includes the planning of the assignment’s system requirements and my pseudocode.

**System Requirements**

The system shall:

* Have a laser cannon that the player can move left and right and fire from.
* Have enemy aliens that randomly fire back at the player.
* Have a scoring system for the player based on how many aliens they shoot.
* Use a life system where the player loses a life each time the aliens reach the bottom of the screen or when the player is hit by an alien laser.
* Create a new wave of aliens if the current one is wiped out.
* Make the aliens move at increasing speeds depending on how many remain in the current wave.
* Have a menu system that allows the player to pause, restart, and exit the game.
* Use a state system to transition between the game’s states, e.g. Main Menu, Playing, Game Over

The system should:

* Give the player bunkers that they can use for defense against the aliens.
* Store the player’s score and let them see it in a leaderboard.
* Give the player extra lives at certain score thresholds.