IN1007 Java Programming Project

Game Name: Space Shooters

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# Game Overview

Space Shooters is a single player shooting game. The main objective of the game is to destroy all the enemy and dodge obstacles such as enemy ship and asteroids. This game takes place in space which would makes the difficulty of the game harder due the gravity in space. It would make it harder due to dodging the obstacles and the enemies at the same time because obstacles would be moving slowly, and the enemies would be moving fast.

# Gameplay and Mechanics

## Gameplay

The gameplay will be played in the user view of 400x800. There will be static body in the border of the user view which will not be visible and acts the restriction for the player, so it does not fall of the user view world.

## Mechanics

There will be multiple mechanics such as shooting, collecting powerups and knowing when to use which power ups. The powers ups will be collectable items which would drop after eliminating certain number of enemies which would upgrade the number of machine guns on the player warship, and some will award 1 life when collected. The machine gun power up will allow the player to choose whether they would like to use default machine gun or the upgraded one. This will provide variety of attack to keep the player from getting bored from the game.

# Story, Characters

## Story

Planet Earth was attacked by Martian and fought back desperately and lost the 10 yearlong battles. 2 years after the battle ended mysterious warship (Player) has arrived near the earth atmosphere to challenge the Martians and free the earthlings from despair. Martians have no choice but to send troops in armies to fight the warship, but the warship is powerful, so after a year of fighting, warship gets rid all the Martians and free the earth and becomes a hero. Mysterious hero’s identity is still a secret. Find out in the next sequel…

## Characters

There will be multiple characters which will be acting at the player and the enemies. Character will have dynamic bodies, so it has the properties of the gravity. The player will be controlled by the user playing the game. The enemies will be controlled programmed to become obstacles for the player and try to stop them from finishing the game. The enemies will become more of a threat to the player as they pass each level. For example, the first level they will only go in certain direction to make it easier for the user to dodge them and in the next level there will be few enemies who will follow the trajectory of the player and try to cut them of and in order to avoid those enemies. The player would have no choice but to eliminate then.

# Levels

There will be up to 3 or 4 levels in this game which will get harder each level to make it challenging. The first level will be easy and will help the player to understand the game. It will contain some obstacles and few enemies for the player to get used to the controls of the game. The second level will contain more enemies and it will introduce enemies shooting in the straight line for the player to dodge and eliminate them without getting hit. The third level will introduce enemies who will follow the player and get in the way so they must be eliminated. These introduction to new mechanics or obstacles over level will help the player learn the game overtime.

(SKETCH)

# Interface

## Controls

The controls of this game will be very simple. The controls go the following:

1 – Power up slot

2 – Power up slot

A – Move left

D – Move right

SPACEBAR – Move up

LEFT Mouse Click – Shoot

ESC – Pause game

## Visual System

The game will have a menu, pause menu and HUD.

The menu will contain the following Start, Exit.

The pause menu will contain resume, restart, menu.

The HUD (heads up display) will contain Lives, Score, powers collected. The lives will start with certain number of lives at the start of the game and will follow the player and keep track of how many lives are left before the player dies. The score will keep track of how many enemies are eliminated and power collected will keep track of how many powers are collected which will allow the player to switch between.

## Audio, Music, Effects

There will be music on the menu and effect on each level. For example, shooting audio, cracking effect and many more.