

Orbit Defenders Project Template

Date: 17-11-2021

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Subject: [Project] Orbit Defenders

Project Overview

Orbit Defenders

This project is a video game to see how long you can stay alive and protect The Earth! The player must shoot the asteroids before they go past them and at the same time not get hit by any asteroids. The only ways for the player to lose lives is to let asteroids pass by them or get hit by asteroids and once the player loses 3 lives the game is over.

Users

[Target Audience]

Retro Gamers: This Game is 8-bit just like the old arcade games (Space Invaders)

Endless Runner Lovers: The Game is infinite and doesn't stop until the player loses all lives (Endless Runner)

Product Features

(P1) Game Screen

- (P1) User-Controlled Character (← - Left Key, → - Right Key, Fire - Space Bar)
- (P1) Random Obstacles
- (P1) Collision Detection
- (P2) Game Background
- (P2) Life Display
- (P3) Time Alive Display
- (P4) Sound Effects
- (P4) Power Ups

(P2) Start Screen

- (P2) Game Title
- (P2) Play/Start Button
- (P3) Controls/Help Button
- (P4) Exit Button
- (P4) Music
- (P4) Start Background

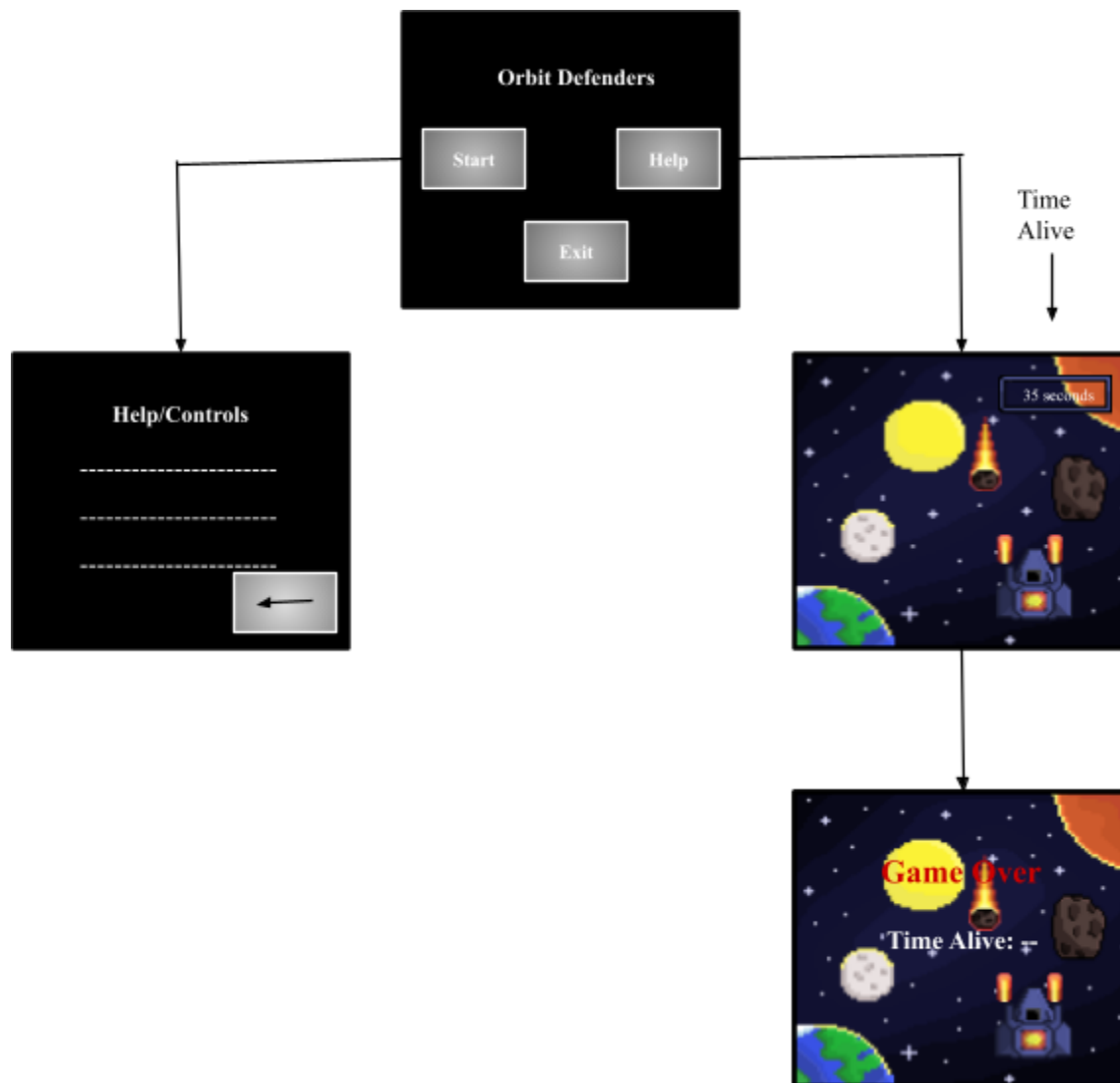
(P2) Game Over Screen

- (P2) Game Over Text
- (P2) Restart Button
- (P3) Total Time Alive

(P3) Help/Controls Screen

- (P3) Help/Controls Text
- (P3) Back Button
- (P4) Controls Background

Program Mockup Sketches



Feature Priority List

[This section contains a list of all possible features that will be included in the program. Each feature should be listed in a separate bullet point. It should be given a name, followed by a description. Each feature should be prioritized in it's order of importance]

User-Controlled Character (← - Left Key, → - Right Key, Fire - Space Bar):

The Character that the player plays as in the game that can move

Random Obstacles:

Obstacles such as asteroids that need to be shot by the player

Collision Detection:

Collision detections for Buttons, Obstacles and Character/Player

Game Background:

The Setting or area of the game that is played on

Life Display:

The display of how many lives the player still has

Game Title:

The Game's Title on the Start Screen

Play/Start Button:

A button that starts the game

Game Over Text:

Text that is used when the player loses and the game over screen comes up

Restart Button:

Restarts the game if pressed

Controls/Help Button:

Brings player to the Help/Controls Screen

Help/Controls Text:

The text that is in the Help/Controls Screen

Back Button:

Brings player back to the Start Screen from the Help/Controls Screen

Time Alive Display:

Amount of time the game has been run without restarting / how long the player has lived

Total Time Alive:

Total time the player was alive for

Sound Effects:

Sounds that come out of the game

Power Ups:

Boosts movement and more of the character/player

Exit Button:

Exits the game

Music:

Game music that starts when the game is opened

Start Background:

The Background of the Start Screen

Controls Background:

The background of the Help/Controls Screen

Version Guide

[This section contains a list of each program version and all the features that will be included in that version.]

V1

- User-Controlled Character
- Random Obstacles
- Collision Detection
- Game Background

V2

- Game Title
- Game Over Text
- Start Screen with Play/Start Button
- Game Over Screen with Restart Button
- Life Display
- Start Screen with Controls/Help Button
- Start Screen with Exit Button

V3

- Time Alive Display
- Total Time Alive
- Sound Effects
- Power Ups
- Help/Controls Screen with Text
- Game Over Screen with Total Time Alive
- Help/Controls Screen with Back Button
- Controls Background
- Start Background
- Music
- Bug Fixes

Schedule Milestones

[Identify key milestones (most practically, these are ranges initially). This is NOT meant to be a detailed schedule, just a list of overarching deadlines.]

Version 1

User-Controlled Character
Random Obstacles
Collision Detection
Game Background

Nov 19th - Nov 30th

Nov 19th
Nov 29th
Nov 29th - Nov 30th
Nov 30th

Version 2

Game Title
Game Over Text
Start Screen with Play/Start Button
Game Over Screen with Restart Button
Life Display
Start Screen with Controls/Help Button
Start Screen with Exit Button

Dec 1st - Dec 3rd

Dec 1st
Dec 1st
Dec 1st
Dec 2nd
Dec 2nd - Dec 3rd
Dec 3rd
Dec 3rd

Version 3

Time Alive Display
Total Time Alive
Sound Effects
Power Ups
Help/Controls Screen with Text
Game Over Screen with Total Time Alive
Help/Controls Screen with Back Button
Controls Background
Start Background
Music
Bug Fixes

Dec 3rd - Dec 17th

Dec 3rd
Dec 3rd
Dec 13th
Dec 13th
Dec 14th
Dec 14th
Dec 14th
Dec 15th
Dec 15th
Dec 15th - Dec 16th
Dec 16th - Dec 17th