**SAMPLE**

**GAME DESIGN DOCUMENT**

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# Game Overview

Title: Plane The Game

Platform: PC Standalone

Genre: 2D Arcade Shooter

Rating: (10+) ESRB

Target: Casual gamer (aging from 10 - 30)

Release date: April, 2021

Publisher: Lee Xie Loong

Plane The Game is an arcade shooter game that is like the old school 1942 Plane Game. It is a vertical shooting game, and the player is playing as a pilot controlling an aircraft to shoot down enemy planes, and to avoid the enemies from shooting you. You are to complete the levels as the player and kill the final boss. As you can have a local play of up to 2, you and your other player can work together to kill the enemies and win the game.

# High Concept

Plane The Game is a local multiplayer 2D arcade shooter game where players are supposed to take down enemies and kill the final boss in order to win.

# Unique Selling Points

1. Stunning particle effects
2. Local play
3. Arcade-type style

# Platform Minimum Requirements

PC STANDALONE

OS: Windows 10

Graphics card: NVDIA 1050

# Competing Titles

1942 by Capcom

# Synopsis

You play the role as a pilot taking down enemy planes and pushing your way through to make it to the final boss.

# Game Objectives

The objective of the game is to survive for as long as possible, while working together to destroy the final boss after a certain number of levels.

# Game Rules

The game level is a closed environment with many walls in it. The pathways are filled with dots, and you get points for collecting each dot. 4 ghosts will chase you, and if you eat 1 of the 4 cherries in the game level, they will get stunned for about 30 seconds. You can eat them to get extra points while the ghost will respawn and restart the chase for you. You win when you have collected all the dots. You lose a life when you get caught by the ghost and when you lose all 3 lives, then you will lose the game.

# Game Structure

Chart, diagram

Description automatically generated

# Gameplay

Game Controls (PC), 1ST PLAYER

Diagram

Description automatically generated

Game Controls (PC), 2ND PLAYER

A picture containing diagram

Description automatically generated

# Player

## Player Character

…

## Player Metrics

Speed: 6

Number of lives: 3

Attack Damage: N/A

Time to attack: Depending on weapon

## Player States

Idle: The idle state is stand still.

Move: The movement state is a top-down 2D movement.

Damaged: The player will have iframes for 3 seconds after losing health, and continuously blink until the iframes are over.

Power Up: Player will look different depending on the power-ups the player has collected.

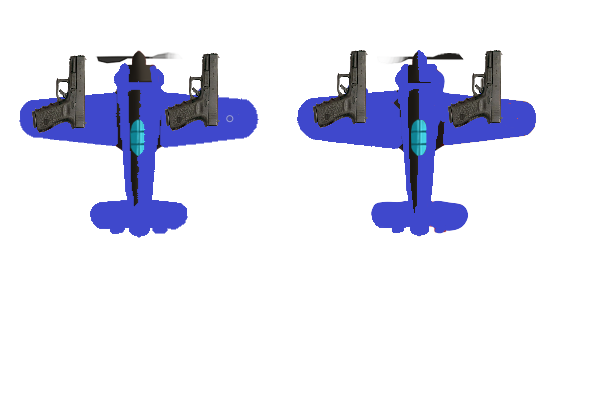
Death: The death animation will make the player’s aircraft explode and die.

## Player Weapons

Bullet: Basic shooting that shoots out in front of the aircraft.

# Character Line-up

# **Player 1:**



# NPC Enemies (names not decided)

The enemy aircrafts will spawn from anywhere from the screen.

F-16

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | MAX HEALTH | SCORE VALUE | ATTACK DAMAGE | TIME TO ATTACK |
|  | 50 | 10 | 5 | 2 secs |

Orange Plane

|  |  |  |  |
| --- | --- | --- | --- |
| MAX HEALTH | SCORE VALUE | ATTACK DAMAGE | TIME TO ATTACK |
| 100 | 30 | 10 | 1 sec |

Pink Plane

|  |  |  |  |
| --- | --- | --- | --- |
| MAX HEALTH | SCORE VALUE | ATTACK DAMAGE | TIME TO ATTACK |
| 10 | 5 | 1 | 0.1 secs |

Green Plane

|  |  |  |  |
| --- | --- | --- | --- |
| MAX HEALTH | SCORE VALUE | ATTACK DAMAGE | TIME TO ATTACK |
| 120 | 20 | 20 | 1 |

## Enemy States

Every enemy performs and has different and unique states, as described below:

**F16:**

Move: Flies directly into the player.

Shoot: Shoots bullet in front of the aircraft.

Death: Explodes and die.

**Orange Plane:**

Move: Flies directly into the player.

Shoot: Shoots from 2 places in front of the aircraft.

Death: Explodes and die.

**Pink Plane:**

Move Flies around in a circle and spawns at the side of the screen.

Shoot: Shoots multiple times in a cone shape in front of the aircraft.

Death: Explodes and die.

**Green Plane:**

Move: Flies directly into the player.

Shoot: Shoots from all direction at a high fire rate.

Death: Explodes and die.

## Enemy Spawning

Enemies will spawn from anywhere in the screen.

# Art

## Setting

The game takes place in a battlefield with destroyed buildings and constant explosions of aircrafts.



# Level Design

The level consists of power-ups, as well as different levels with increasing difficulty as the player progresses and will end with a final boss.

# Audio

|  |  |  |
| --- | --- | --- |
| NAME | CATEGORY | DESCRIPTION |
| Shoot | FX | Plays when the player shoots |
| Collect coins | FX | Plays when the player collects a coin |
| Collect power-ups | FX | Plays when the player collects a power-up |
| Damage | FX | Plays when the player gets damaged |
| Button | FX | Plays when clicking on any button |  | Plays when the player gets damaged |
| Death | FX | Plays when the player dies |
| Win/Lose | FX | Plays when the player wins/loses |
| Background Music | BM | Music is always playing if the game is open |
|  |  |  |

# MVP (Minimum Viable Product)

* Two players character only
* Built for the PC platform

# Wishlist

ADD MORE SKINS

In a future DLC, add more skins for the Player to apply on the game background.

ADD MORE LEVELS

In a future DLC, add levels with even further increased difficulty to keep the game challenging, as well as having more playtime.

ADD UPGRADING

In a future DLC, add in upgrading mechanics so that the player can save their progress and upgrade their planes if they were to be stuck and cannot progress.