**GAME DESIGN DOCUMENT**

**CatSocket the Game**

**Santeri Lipsunen (0421721)**

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# Executive Summary, Quick overview

CatsSocket is a fast phase endless runner 2D game combined with fast action and obstacle dodging. The game includes the main character CatSocket who flies through the stage shooting evil Doges while dodging long-cat poles. The atmosphere and design of the game are inspired by 8-bit era and as a game it is trying to be as simplistic as possible. In addition, this game aims to provide somewhat addictive gaming experience through score gaining system. The main goal of the game is to gain as high score as possible. Moreover, the beta release of the game (the result of this course) is made for PC only. However, I am planning on expanding the game on mobile in the future.

# Target Audience

The attributes of an ideal player of this game are following:

* Cat Lover
* Likes 8-bit games
* Likes simplistic games
* Likes 2D games
* Likes games based on scoring system
* At this point PC users
* In the future Android users

This list of attributes is not an exhaustive one. There is more room for the audience to go. However, if the game would ever be marketed, these attributes would be taken into consideration.

# Main Characters

**CatSocket**

The Character Catsocket is based on my Instagram Page CatSocket. In this game he is basically a cat superhero who tries to protect the cat kingdom from the invasion of the evil Doges. He can fly with his hover board and shoot laser beams from his mouth to destroy the evil Doges.



**Figure X.** CatSocket the character

# Main Features

This game has several main features:

1. The Game
   1. Play the game
      1. Movement
      2. Laser shooting
   2. Pause the Game
      1. Continue
      2. Menu
      3. Quit
2. Menu
   1. Options
      1. Graphics: Low – Medium – High
      2. Volume slider: 0% - 100%
   2. Quit

## Main mechanics

**Column Pool**

As the game is and endless-runner, the stage will continue infinitely as the player survives. Therefore, the stage needs to generate repeating obstacles randomly (in theory forever). To save performance and memory, a pool of five obstacles will be created and they are infinitely repeating themselves and spawning in random positions.   
  
The same technique will be used for the Evil Doges. However, the Evil Doges are destroyable Game Objects, so they need to be handled somewhat differently.

**Score System**

There needs be a way to count score while passing through the game and destroying Evil Doges. Moreover, the score needs to be updated in real time. Therefore, it makes sense to implement the score system to the Game Controller.

## Movement

At this point movement happens via mouse and keyboard. The keys for the movement are mouse key 0 (left click) and mouse key 1 (right click). When mouse key 0 is pressed the character moves up and when mouse key 1 is pressed the character moves down.

## Physics

The physics of the game are based on typical 2D platformer. They do not try to mimic the real-life physics. The basic explanation in terms of CatSocket the Game is that the character falls continuously and when user commits either Up/Down movement the character either moves Up or Down depending on which movement is selected. Movement Up is a positive constant while Movement down is a negative constant. In addition, the falling speed is a positive constant which accelerates the characters decrease in vertical speed on each update. Therefore, the character increases in speed while falling.

## Multiplayer mode

This game has no multiplayer mode.

# Genre, Setting, Concept Art book\*

Genre of the game is a so called “Endless Runner”. One could also fir it in the 8-bit saga, since the graphics of the game are done mostly by pixel art. Moreover, it falls in a pit of cat related games, which is not a huge thing in its entirety However, as the main audience includes and attribute “Cat Lovers”, I want to state that it is part of the genre of the game.

In addition, the whole vibe of the game is meant to be more or less cartoony. That is manifested through both the art and the physics of the game.

# Enemies, NPCs, Other objects

**The Evil Doge**

The Evil Doges are the main villains of the game. They have arrived to the Cat Kingdom in order to concur it. They are demonic creatures wagging their deadly tails and hovering on metallic platforms. Killing an Evil Dog will give +1 kill count and +5 score points.

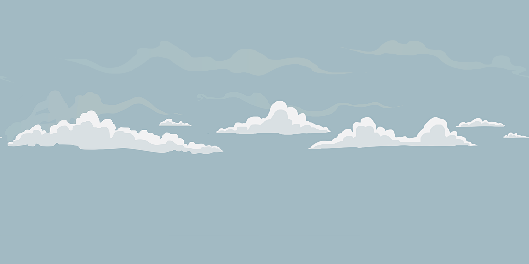
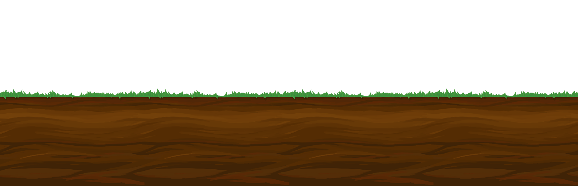
**Long Cat Pole**

Long cat poles are the obstacles of the game. The premises of the game is to avoid colliding to these poles since it will kill the player. Flying above or below one of the poles will give +1 score point.

**Figure X.** The Evil Doge **Figure X.** Long Cat Pole

**Background & Ground**

** **

**Figure X.** Background **Figure X.**  Ground

# Story board, script\*

The scenery is set in the peaceful Land of Cats, where everything is going great and all the cats are happy. Suddenly an army of evil Doges appear to the Land of Cats and start the invasion of it. We play as the character CatSocket, who is assigned to save the Land of Cats from the invasion of Evil Doges.

# Technical definitions, Tech guide\*

## Platforms, versions

**Current version (Beta):**

Operating system: *Windows 10*

**Future versions (1.0):**

Operating systems: Windows 10, Android ?, iOS ?

To be solved: Control system

## Control Scheme

* **Up:** Mouse Key 0 (Left click)
* **Down:** Mouse Key 1 (Right click)
* **Shoot Laser:** Space
* **Pause:** Esc
* **Menu navigation:** Mouse / Arrow keys

## Limitations

The first version of the game is only available on PC. Furthermore, this version of the game lacks a multiplayer aspect. In addition, there is going to be only one stage and one playable character available on this version. These limitations will be solved in the further releases.

# Business definitions\*

At this stage, the game is not trying to make any money. The point of this game is to be a promotional piece of my Instagram page CatSocket and therefore add value to the brand. However, if the game catches enough attention, I am planning on monetizing it.

## In-app purchases

This version of the game has not any in-app purchase at this point. However, later in the Android and iOS version, I am planning on creating different playable characters which might be able to be purchased via an in-app purchase. Furthermore, I am planning on creating different levels for the game in the future. The levels would require a certain amount of points from the previous level to be unlocked. These levels could be possibly able to be unlocked through an in-app purchase. However, all the things mentioned are out of the scope of this release.

## DLC packs

DLC packs do not seem to make sense for this type of game.

# Outsourced/Bought Assets

**Art**

Background and Ground are outsourced from the Unity Tutorial Project: [Flappy Bird.](https://unity3d.com/fr/learn/tutorials/topics/2d-game-creation/project-goals?playlist=17093)

**Music**

Soundtrack is outsourced from: <http://freemusicarchive.org> (Track name: rolem – Neoishiki)