

# ZIGZAG

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## Game Design Document

**Daniel Cutajar**

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The scope of the project is to produce a clone of the Ketchapp game, ZigZag. The clone should appear similar in design, layout and functionality.

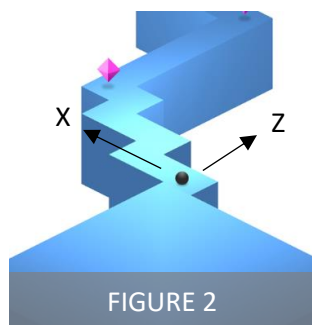
Due to the lack of access to a Mac computer, the game will solely be targeted at Android devices with dimensions catered to both phones and tablets. Apart from this I shall release the game on PC.

For resolution I shall use the standard sizes for both Phone and Tablet. 9x16 for Mobiles and the opposite of 16X10 for Tablets and Computers.

Replicating the original game, the method of input will solely be from the touch screen. Similarly, only one gesture is used, the tap gesture. This is used both for the functionality of the game and for navigation through the UI.



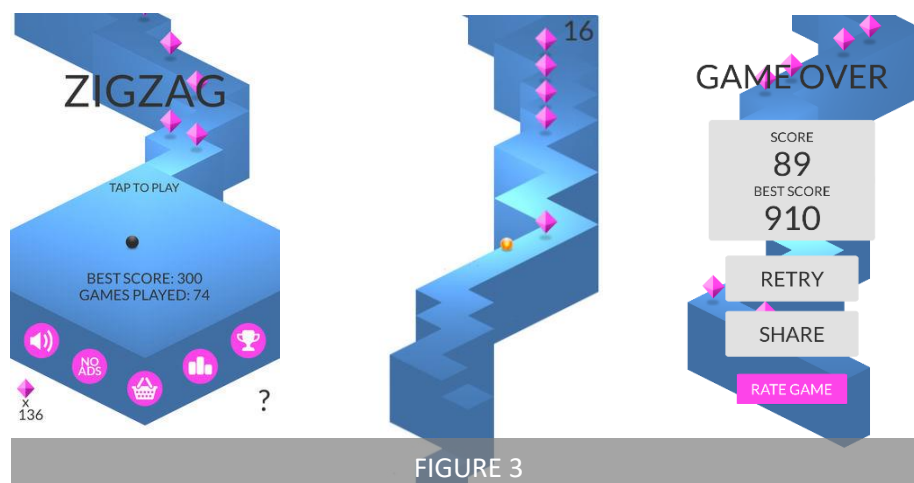
## CONTROLS



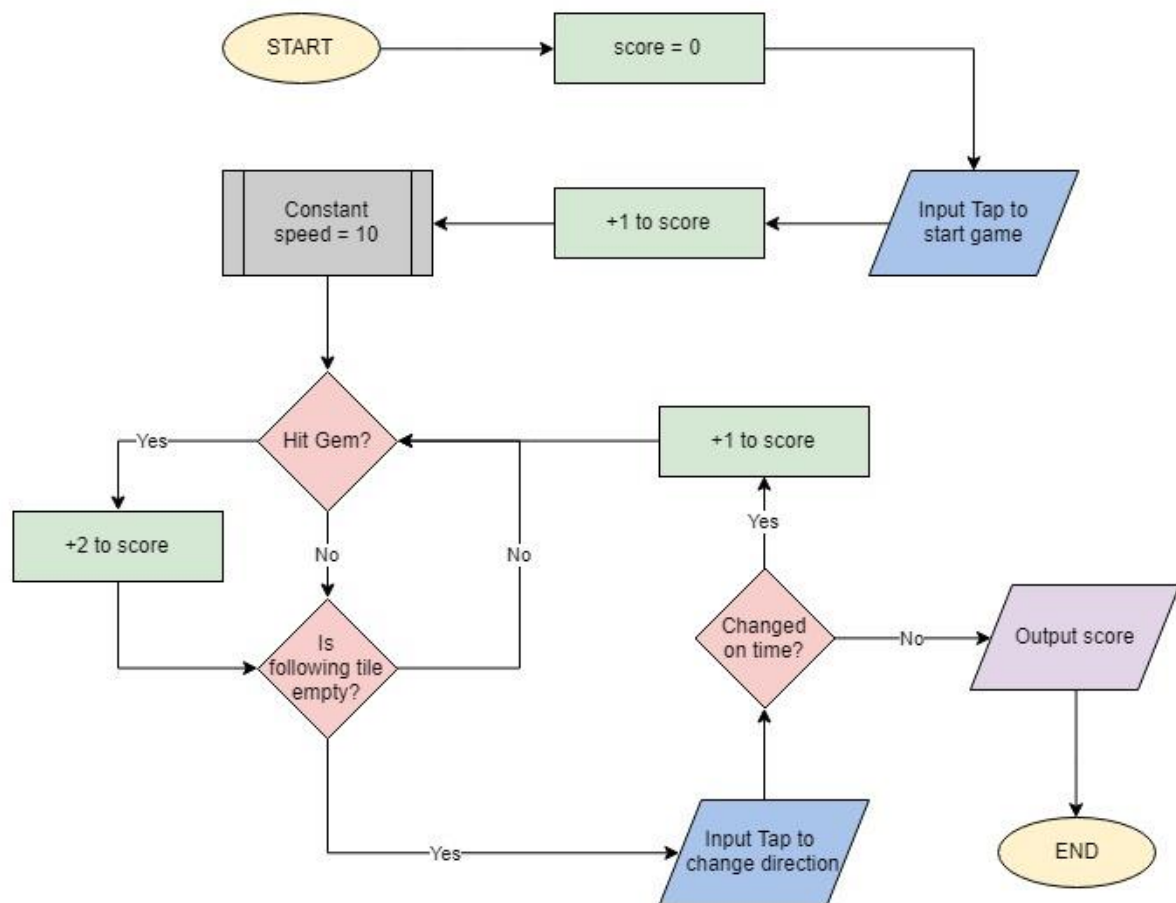
The game boasts incredibly simple controls. The game begins with the player on a large platform in an idle position. Tapping the screen will prompt the sphere to move towards the Z axis (shown in Figure 2) and when needing to change direction, simply tapping the screen again will move the player towards the X axis (shown in Figure 2). The gameplay comes from directing the sphere in the direction of the winding path trying to prevent it from moving off the edge ending the run. Each tap also gives the user a point which increases their overall score for the run. Points can also be gathered through colliding with pink gems on the path giving the player 2 points per gem.

## GAME SCREENS

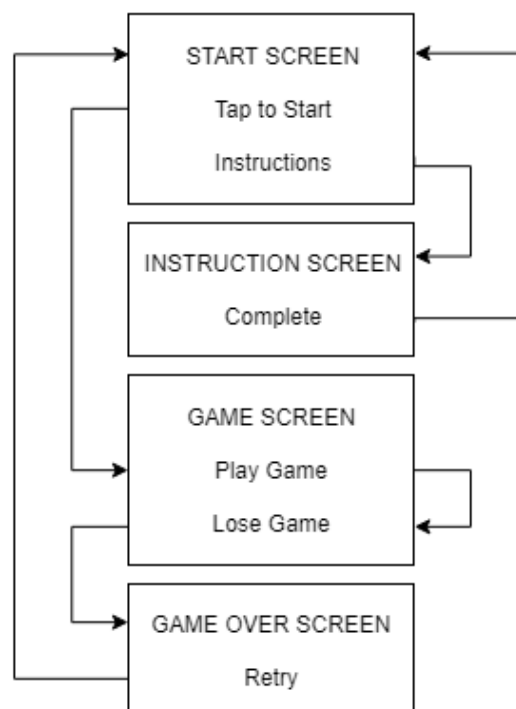
Zigzag has only one game screen, the main screen. The UI simply overlays the game screen when conditions are met, should the user lose the game the game will stop and the Game Over UI will overlay. Should they press the retry button they are directed to the Start UI where they are prompted to tap to begin the game. In this screen other options like the shop, settings and world standings are shown as buttons. How these overlays appear are shown in Figure 3 below.



## FLOWCHARTS



## NAVIGATION MAP



## GAME OBJECTIVES

The game is a simple endless runner with no actual end. With that in mind the core objective of the game is to go through the game and try to get a high score. Upon losing the player will be told their previous game score along with their best score thus far. Should they pass that score with a new high score a new designed UI will appear visually rewarding them for achieving this goal.

## VISUAL ASSETS

The game makes use of very simple geometric models as shown in Figure 4. A sphere for the player to roll down the path as, rectangular tiles conjoined together to make up the path and diamond prisms representing the gem. They are also given matte colours to fix the colours in the game. My attempt at recreating the models can be shown in Figure 5.

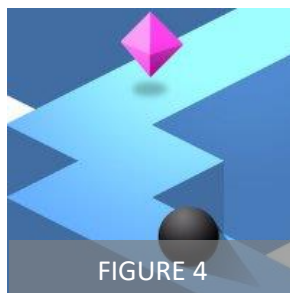


FIGURE 4

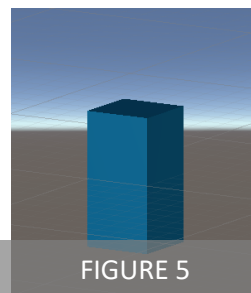
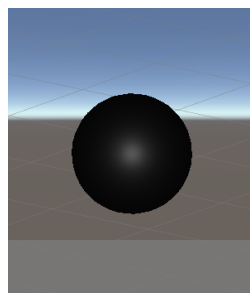
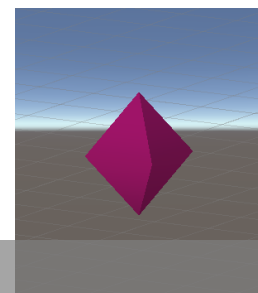


FIGURE 5



## UI ELEMENTS

In terms of screens we have the game start menu, game screen and game over menu. These each have their own UI (Shown in Figure 6). The game start menu has the title and tap to play which flashes in and out. Along with that there is the Best Score and Games Played which have dynamic values based on your statistics. In addition are the menus to shops, options and play store information (not to be implemented due to time constraints and capabilities).

In the game screen there is the dynamic score shown at the top of the screen. It constantly updates based on whether the player taps or picks up a gem.

Lastly in the game over menu there is the title, score display showing the previous game score along with the best score with dynamic values from the PlayerPrefs save. Lastly, retry button that takes the player back to the game start menu.

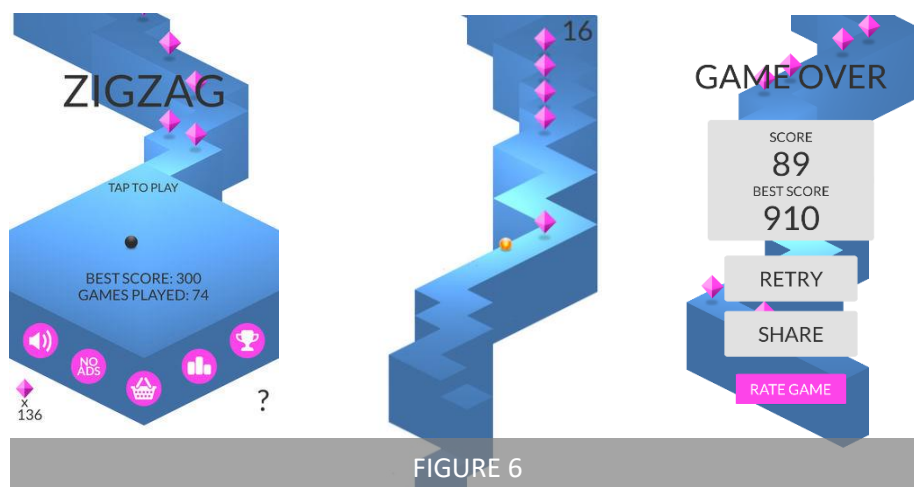


FIGURE 6