The Design Document

Maze Runner

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Mobile Applications Development 3.

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Game Overview

Working Title

Maze Runner

Genre

Action Puzzle Game.

Audience

Ages 11 – 32, with some gaming background.

The Plot

You are on a quest to get out of a maze, not before collecting each coin which has a timer on it. When each coin is collected the exit point of the maze becomes apparent. Which brings you to the next level.

First Level -Introduction

After selecting New Game from the menu, the first level begins. The character is placed at a random stop within the maze. Coins appear around the maze. Each coin has a timer on it. The character must get to each coin before the timer runs out. When each coin is reached before the timer runs out, the exit point of the maze will become clear and the character can exit the level to continue to the next.

Context

This Design Document is being completed as part of module Mobile Application Development 3. The Project involves making made is a 2D Unity project which is a game that is a Shooter game, Platform game, Puzzle game or Traditional game. This game will be designed as a Universal Windows Platform (uwp) application.

Goals

Front End

When entering the game, a simple menu appears that gives an option to start a new game or exit. When new game is chosen the player is brought to the first level of the game. When exit is chosen the application closes. Once the game is over a screen appears with the score you achieved and the option to play a new game or exit the program.

In Game Menus

Throughout each level of the game there will be a pause button in the top right corner, when selected this will appear as a large pause sign which covers the view of the game from the user. When this large play screen is pressed the game recommences.

Control Mechanism

The character moves around using the user's finger to guide the character though the maze on mobile devices and the arrow keys on desktop with keyboard devices.

The Game

Each time the game is opened the user is presented with the home menu screen this gives the option to choose New Game or Exit.

When new game is chosen the first maze appears, there are coins on the maze with timers, each of these coins must be collected prior to the timer running out. On collection of each coin the exit will appear and the character can progress to the next level of the game.

Score

The score of the game is calculated by gaining points by reaching each item, the item holds the equivalent number of points as the duration that object lives for. The points become valid straight away. These points are shown to the user at the top left of the play screen. When the game is over either by reaching the end of the game or by an object timing out an end menu will appear showing the total score achieved by the player.

The end menu screen also allows the user to choose to start a new game or exit the application. When new game is chosen level one maze appears again and the player restarts their mission.

Alternate Solutions

When deciding the design of the game, I investigated shooter games, platform games, puzzle games and traditional games. I also considered the types of personalities that enjoy playing each of these types of games and came to the decision to create an action puzzle game.

Shooter Games

- Examples- Doom, 2d Zombie guns, Maze War
- Classic shooter games are first-person shooter games. These games are most popular because the player gets to experience weapon-based combat as the first-person protagonist. People enjoy classic shooter games because of the realism and they often get the choose their weapon.
- Vertical and Horizontal scrolling shooting games are games that are viewed side on and moves from left to right or right to left. These games were traditionally played in arcades, so a lot of older people would enjoy them as it could remind them of the past.
- Analysts personality type are most likely to prefer attacking roles when playing games. They enjoy figuring out strategies to attack/defend.
- Commander Personality type are naturally born leaders. When they come up with a plan their main objective is to meet that plan and will do anything to lead their group to get to that goal. This makes them very attracted to first person shooter games.
- I have never been interested in shooter games and therefore decided not to choose this genre when designing my game.

Platform Games

- Examples- Super Mario bros, Metroid, mega man, super meat boy, sonic.
- Platform games consist of characters jumping between suspended platforms while avoiding optical.
- All personality types enjoy platform games. They are very engaging.
- Donkey Kong was originally an arcade game in 1981, this was widely popular and eventually games similar to it appeared on new consoles such as the Nintendo entertainment system(NES). Super Mario Bros was first released on the NES in 1985.

Puzzle Games

- Examples-Tetris, Bubble Shooter, Candy Crush, role playing games, matching games.
- People that are most attracted to puzzle games are those that will play games for short periods at once. 5/10/20 min spurts.
- Adventurers enjoy to play puzzle games because they love to play for the story and the thrill of the game. They love the challenge to complete the task at hand.
- An action game requires the player to manipulate game pieces in a real-life environment. It also often has a single screen and there is some sort of time limit. It can also involve pattern matching.
- I chose to create an action puzzle because this is the type of game I find myself playing most and would like to create a game that engages me and hopefully many more.

Traditional Games

- Examples - chess, connect four, card games.
- This is one of the first game types made for mobile devices because these games are old and known by everyone.
- The first interactive electronic game was first designed in 1947.
- Most traditional 2d games used traditional animation. This is an animation technique where every frame is drawn by hand on a physical medium.
- These games are often very complete to create while very intuitive for the user.
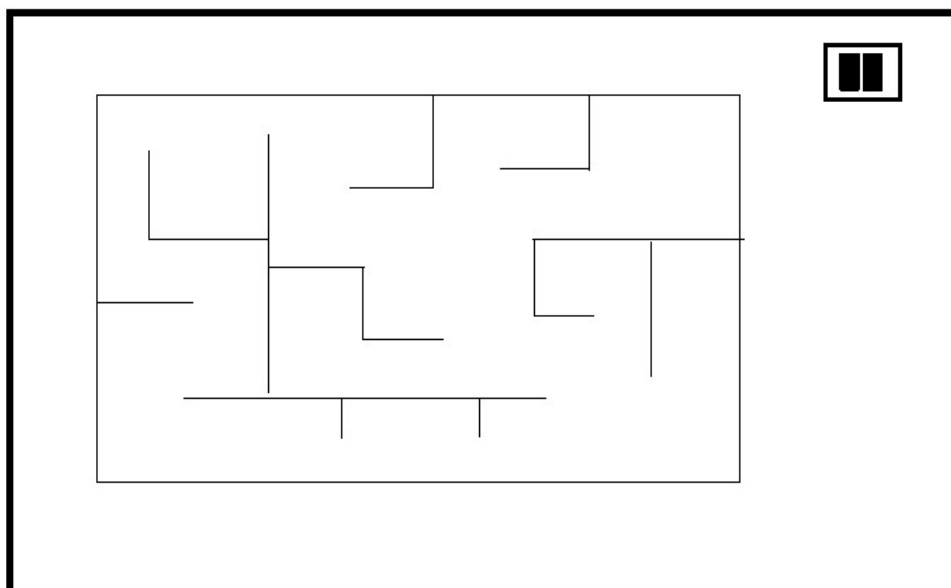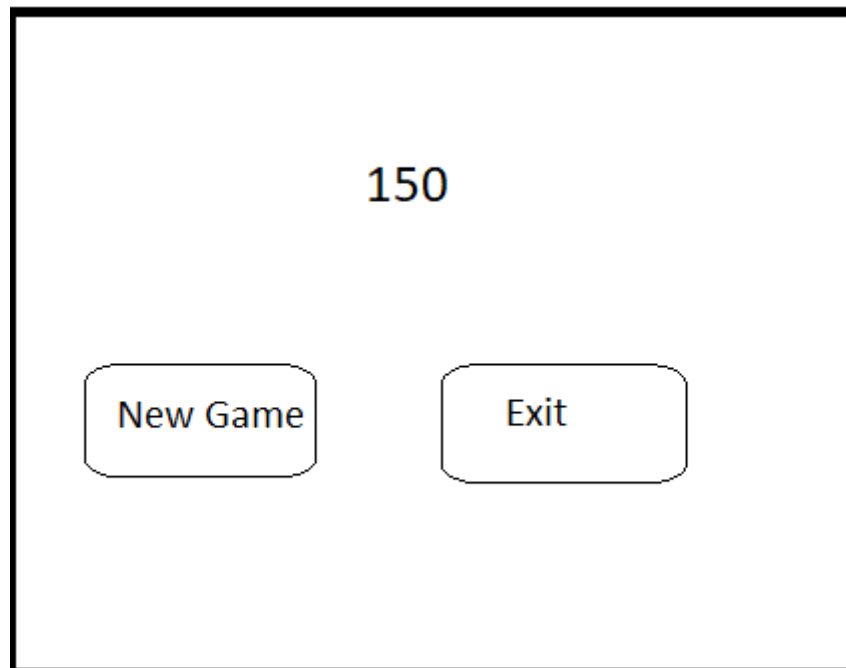- Every personality type enjoys playing traditional games.

Milestones

1. Create a simple small maze for the first level. Including a start point for the character and an ultimate exit destination.

2. Write c# code to allow the character to navigate around the maze using either arrow keys on desk top or guided movement on mobile device.

3. Create objects that the character must reach.

4. Create a timer for each individual object and when the timer expires, make that object disappear. Alternately when the character reaches that object, the object should disappear.

5. Write c# code causing one section of the maze to disappear as an exit point when all objects have been reached by the character.

6. Create a Home menu page, with the options to start a new game or exit.

7. Create a pause button on the playing screen which when clicked appears large on screen covering user's maze.
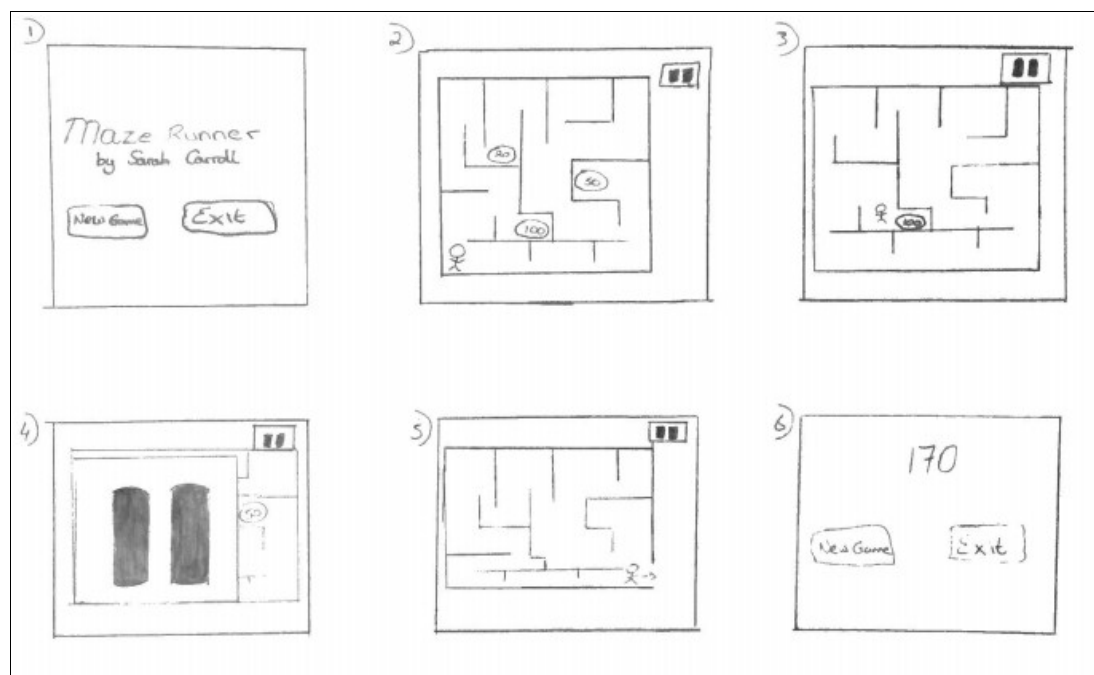
Monitoring and Altering

When creating this game, the plan is to create a user friendly 2d action puzzle game. Future development for this game would be to add procedural maze algorithms to create a random maze depending on the current user's level determined by how fast they reach an object/ how fast they get though a requisite number of levels.

Design

Maze Runner

By

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New Game   EXIT

Story Board

Resources

https://www.16personalities.com/articles/might-or-magic-a-study-of-gamers-personality-types

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https://en.wikipedia.org/wiki/Side-scrolling_video_game#Side-scrolling_shooters

https://en.wikipedia.org/wiki/Traditional_animation

https://en.wikipedia.org/wiki/Platform_game

https://en.wikipedia.org/wiki/Early_history_of_video_games