2022

Software Design

Its Okay To Dream

The Big 5.

9/20/2022

1. Vision, Scope And Goal of Project

Vision:

The vision of this "Tic Tac Toe" was to create an interactive open world game. The purpose of the game is to allow users to interact with each other creating friendships etc. This Game will help user to distress during their hard times.

Scope:

❑ By the looks of the vision, the scope of the game is large. Our prototype is a scaled down version of Tic Tac Toe, and this prototype can be found on our GitHub repository. Tic Tac toe is a game that is played by two players who take turns marking the spaces in a three-by-three grid with X or O.

Goal of Project:

● Complete prototype of the game
● Follow the pitch as much as possible

2. Team/participations/contributions

Team Members	Student ID
Hamla Luphumlo	G22h9011
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Date:20/09/2022

3. Key Requirements Summary

3.1 Design

To find the right design for our game we must first do some background research on similar games. From there we can start to conceptualise our own design. Through our research and game pitch we can then create our concept art and then begin prototyping. Throughout the developing process we can play test to ensure the game is properly working and going as planned.

3.2 Technology

The technology we will be using to create our game is Android Studio. Android Studio is a great game engine with many different capabilities. It primarily focuses on android phone games and uses three different types of coding interfaces, blueprints and kotlin and java. Android Studio is also free to use which fits within our requirements.

3.3 People

As team members we currently don't have specific roles for the game, everyone is a programmer and a designer, because we all know how to write code and what we must do.

3.4 Timeframe

We have a limited time frame to create our prototype due to exams being around the corner and hence interaction with our team members have been restricted and the reason for this is because we live in different residents and we are far from each other but we do video calls to interact with each other . However we have been given 6 weeks to complete this prototype. The first two weeks consisted of everyone doing research on how tic tac toe is played on how to create a game using Android Studio and also learning some cool features that come with Android Studio. We also have to familiarise ourselves with Andriod Studio and GitHub as we have little background on how to use the software. The next 3 weeks will consist of us building the game and gathering all components together and play testing.

4. Concept Summary

4.1 Title

As pointed out in the game pitch the title of the game is "Tic Tac Toe". The tagline for this game is "Escape your own mind and dream" and forget about your problems for a minute.

4.2 Gameplay Hook

Tic Tac toe is a game that is played by two players who take turns marking the spaces in a three-by-three grid with X or O. In order to win in this game you have to align three X's or O's and the direction of this alignment doesn't matter that much.

4.3 Genre

The genre of this game is puzzle-solving.

4.4 Theme

We are required to create a game that revolves around the common theme of "dream". Not All Dreams Are Good has done this by implementing the theme in its title. We never dreamed that one day we would be creating a game changing Game, but you never know what you are going to dream about tonight.

4.5 Platform

The game will be available to play on Android phones only. The reason why this game is best suitable for Android Phones is because it will be easier to play on it and android system isn't that complicated like Iphone system. However in the future it may be open to other platforms too.

5.Target audience/market analysis

According to the game pitch the primary audience of this game is targeted any age group. This is great because anyone this days uses smartphones and sometime we all do get bored and just want to play games, this game is suitable for everyone and it will more useful to the more mature audience because it will help them in critical thinking.

6.Game Setting/Story

The game setting will take place in a grid that's 3 squares by 3 squares. You are **X**, your friend (or the computer in this case) is **O**. Players take turns putting their marks in empty squares.

 The first player to get 3 of her marks in a row (up, down, across, or diagonally) is the winner.

7. Gameplay System

7.1 Description of core gameplay:

7.1.1 Rules and Mechanics

1. The game is played on a grid that's 3 squares by 3 squares.

2. You are **X**, your friend (or the computer in this case) is **O**. Players take turns putting their marks in empty squares.

3. The first player to get 3 of her marks in a row (up, down, across, or diagonally) is the winner.

4. When all 9 squares are full, the game is over. If no player has 3 marks in a row, the game ends in a tie.

7.1.2 Gameplay modes

'Tic Tac Toe' will have one gameplay mode being 'Medium Difficulty' which every player will be able to play effortlessly on. This gameplay mode will encompass a medium amount of; hints, puzzle solving and overall challenge within the game.

## 7.2 Summary of Game Options

There will be a tutorial that will be present on the home page that informs you on how to play the game and there will be also rules that will be displayed which are based on the game and this will always be available on the home page so that if the user wants to remind himself/herself on how to play the game.

8. Art Design (visual and audio)

8.1 Visual direction:

The visual direction we are trying to go for this game is more calming and relaxing We think going with a calming relaxing theme for our game best suits the gameplay since this game is for making people forget about their problems for a minute . We don't want to limit the design to just one visual concept and can be interchangeable in future updates. Different levels will have different environmental designs.

8.2 Reference Art:

Date:20/09/2022
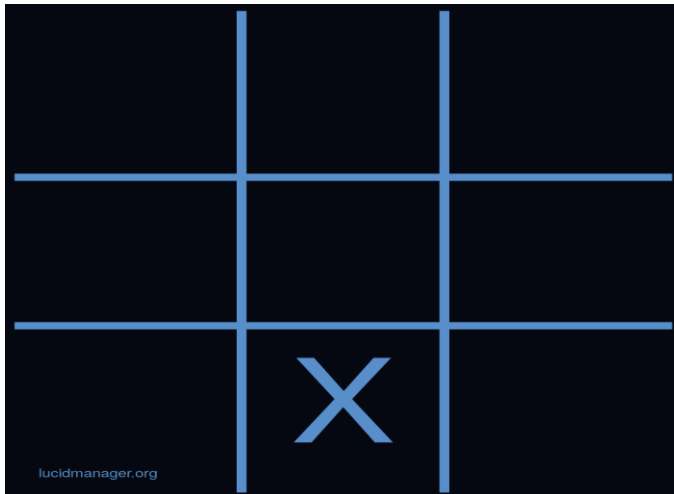
Reference:https://www.lucidmanager.org/tictactoe

The above picture is actually a video showing how the game is played

8.3 Audio Direction:

The game will have sound effects, for example when you are touching lets say "X" there'll be a certain sound playing And when you are touching "O" there be another different sound, there will also be a background sound playing.

9.   Detail of the Technical Design

9.1 Requirements Analysis

9.1.1 Technical Hardware

This game is primarily played on an android smartphone. There are two main hardware components this game includes, CPU and GPU. These two are essential in keeping the game run smooth. As our game is an open world game a mid range CPU and GPU would be needed. However in the future if this game was to become a multiplayer game with various different servers it would require a higher CPU, but that is for the future. This above line means when the we decided that the game should also be playable on a PC And Console and Iphone.

9.1.2 Technical software

The main software for this game creation is Android Studio. Android Studio is great software for beginners to use and is free. It has a great range of features. We also have the option to use either Kotlin or java coding.

9.1.3 System Intelligence

This game uses AI intelligence. This AI intelligence is not that one that is more advanced which is used by the other games that a made by big companies like RockStar Games, it will just have an AI

that will just check who is the winner between the two users, and sometime it will be able to play against the user if the user is a loner person.

9.1.4 Data Management/Support

The game has an option to save any current changes within the game so when the player returns they can continue from where they left off.

9.2 2D Graphics

We are just creating a 2D game, for now.

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