

[GitHub Repository](#)

1. Introduction

1.1. Purpose

The purpose of this document is to provide necessary information between developers and product coordinators that may happen to work on this software

2. Description

2.1. Product

The intended product is a computer simulated Tic Tac Toe board game. It will remain a simple 3x3 playing grid that the user will either place an X or an O on depending on who began the game. The game will declare a winner and reset the playing space, so the user does not have to reopen the program for every game.

2.2. Intended Users

The intended user of the game will be those who enjoy tic tac toe but would like to play it on the computer and not have to find a disposable playing surface

2.3. Operating Environment

The game will operate on any computer capable of opening programs with the “.java” extension. The system must have the Java Runtime Environment version 7 or higher to adequately run the game. The program will not demand any more memory than normal system functions, so the hardware demands are negligible as the computer should be able to run the game so long as the computer functions normally

3. Features

3.1. Current

3.1.1. 2 Player mode

3.1.2. Automatic reset

3.2. Planned

3.2.1. AI opponent with varying difficulty

3.2.2. Graceful exit from within Game

4. Requirements

4.1. User Interfaces

The user must be able to click on the game board using a mouse to select where the game piece will be placed

4.2. Computer Interfaces

The computer must be connected to a monitor or visual output device, so the player can view the game and proceed to interact with it

4.3. Development Requirements

4.3.1. Game must open a 3x3 board with clickable buttons for each game piece

4.3.2. Game must declare either player a winner or declare a tie

4.3.3. Game must announce the current player's turn

4.3.4. Game should be able to gracefully reset the playing space

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5. Nonfunctional Requirements

5.1. Performance

5.1.1. AI Response: The response time for the AI should be rather immediate after the players action

5.1.2. Victory Checks: The victory should not have to be declared once the board is full but once the victor has already met the winning conditions