OOP2 Project Assignment

Jack Carroll (T00194823)

Computing with Games Development

Requirements Specification for Tic Tac Toe

# Requirements Specification

The project that is being specified for this stuednt’s OOP2 Project is the classic game Tic Tac Toe (Xs and Os). The importance of the OOP2 Project is to portray the game that is being created through using a Java interface for the game to be effective. Part of the project will involve a Person class where a user will enter a new player for it to be stored within the Person array for the game so the player can be picked at any time alongside other players that can be registered for a two player game. This will involve an array of players which will enable a certain number of players to be registered for the game. It leads to a user choosing a player along with the details of wins and losses every time a new game of Tic Tac Toe is played.

A grid layout will be used to set up the 9-grid square layout for the game where it will allow the Xs and Os to be placed once the grid is created. It is an important requirement for the game as the grid is needed for the positioning of the Xs and Os across the 9 squares when the game is being played.

Unique X and O images will be important to the game as it is necessary for players to see unique versions of the X and O. They will be done by using Microsoft Paint and then will be placed into the game where these images will be used for the game when they are attached to the buttons for the purpose of getting three consecutive Xs or Os diagonally, horizontally or vertically.

The game will also need a JMenuBar layout to easily access features including playing the game, loading the players for a 2-player game and registering new users into the game system. Each JMenuItem like “Exit” and “Register User” will all have ActionListeners so that an output will be displayed when the item is clicked.

The main menu of the game will feature two shortcuts to immediately gain access to the game. One of the JButtons in the menu is the ability to easily register users for playing Tic Tac Toe when two player mode is played. There will be no AI featured in this project as it is too complex to place it in the game in time. Another JButton that will be in the menu frame is the shortcut for playing the game, so players can start a new game very quickly.

The Tic Tac Toe game application requires a save and load feature to allow the array of users playing the game to be saved when the user presses the Save menu item button by using a try-catch method. The game also requires a load function to load up and open the files containing the files that feature the array of users registered onto the system. It uses a try-catch method as well for deciding how to load the file if there is any information contained within the file. If there is no information, the system will tell the user that no info could be found due to a lack of users being added to the game system.