Software Engineering Group Project

Maintenance Manual AUM Group

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# Introduction

## Purpose of this Document

The purpose of this document is to help maintainers improving and debugging the program.

## Scope

This document should be read together with the design specification document and the test specification document.

## Objectives

The objective of this document is to:

* Give a detailed description of how the program and its different components work
* Suggest any improvements that can be done
* Suggest things that need to be taken into consideration when making changes
* State the physical limitations of the program
* Advise maintainers of what need to be done when rebuilding and testing the program

# program Description

Give a brief description of what the program does and how it does it

## Program Structure

Describe the design of the program

The program allows the user to form words using a list of letters generated randomly. After the user has confirmed a word, the program must check that if it is in the list of legal words and it uses binary search to search through the wordlist.txt file. If the user is playing a new game, upon completion of the game, the program must check if the player’s score is among the best ten. Therefore, the scores have to be sorted in descending order. The program uses Collections.sort to do this and that’s why the Player class implements the Comparable Interface.

The program also allows the user to play a saved game. the user can choose from the whole list

## Algorithms

Describe significant algorithms, is it has already been done in design spec just reference it

## Main data areas

Specify the data structures including arrays and objects where important information is stored for a substantial part of the main program

## Files

All files that the program needs to access is found in the resources folder. It contains the “highScore.txt” file which stores the name and score of the ten best players, the file “wordlist.txt” is the dictionary file and the folder “savedGames” keeps the files of all the games that the players have decided to save. The “wordlist.txt” is the only that the program cannot update.

# Suggestions for Improvements

In the SelectGame frame, the user has to scroll down to find a particular saved game, as an improvement, a search option can be added. Thus, as the user would type in the name of the file, it would give he/she the available files to choose from.

We wanted to add sound to give the player a better user experience and of course to mute the sound when he/she wants while playing the game.

In order to give the letter better look and feel, the buttons shape can be changes to rounded buttons. We have not been able to do that due to the lack of time.

Use of an interface for playNewGame and playSavedGame to avoid repetition of the same methods in the frame.

# Things to watch for when making changes

All the files needed by the program are stored in the resources folder, if ever, the maintainers want to put the different files in separate folders, then all the paths must be changed in the program. It has to be noted that the File object is being used to access the files.

Adding more letter in grids loading and saving methods also have to be changed

# physical Limitations of the program

This program was designed to be used on Windows PCs within the Department of Computer Science of Aberystwyth University.

# Rebuilding and Testing

All identified errors are found in the test report. After having made changes to the program the test to be carried out and the test results are all found in the Test Specification document.

REFERENCES

[1] QA Document SE.QA.10 Producing a Final Report C.J Price

DOCUMENT HISTORY

| *Version* | *CCF No.* | *Date* | *Changes made to document* | *Changed by* |
| --- | --- | --- | --- | --- |
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