

Diary of Goutham Ramakrishnan

Roll No. 140020039

Date: 3rd October

Started thinking about possible Project topics.

Date: 6th October 2014

I looked at the various projects looked on the CS 101 webpage. Suggested Wordsearch as a possible project topic.

Date: 9th October 2014

Decided upon final project topic along with group members.

Date: 14th October 2014. Time: 1-1/2 hrs.

As team leader, allocated various tasks to team members.

Date: 15th October 2014. Time: 2 hrs

Devised algorithm for randomly choosing 10 words from the words database. Did research on how to use graphics in C++.

Date: 16th October 2014. Time: 2 hrs.

Date: 18th October 2014. Time: 2 hrs.

Allotted tasks to all group members for Stage 1 completion of project. Typed out Project Diary.

Date 19th October 2014. Time: 7hrs

Wrote sample code and functions for randomly choosing 10 words from words database.

Did research on how to use the random function in c++.

Did research on how to use strings and string arrays in c++.

Wrote user manual.

Edited SRS documentation.

Completed project report by editing tasks, and writing introduction, algorithm and function used.

Documented no of hours logged and as a group decided upon self evaluation marks.

Created pdfs of all documents, submitted stage 1.

All code written in Stage 1 sample code written by me, with the exception of the three large string arrays containing 50 words each, which was typed by Chetan.

The sample code contained the following functions:

int checkdup(), string* easywords, string* medwords(), string* hardwords(), int* randomarray(), int* fixdup(), int easymedhard() and the main function. (The parameters of the functions have not been specified above to retain simplicity)

Date: 23rd October 2014. Time: 3 hours

Successfully completed functions which obtained the list of words to be placed in the grid.

Hit roadblocks. Modified the specifications of each level.

New tentative specifications:

Easy: All words will be placed either left-to-right or up-to-down. This is randomized by the program.

Medium: All words will be placed either left-to-right or up-to-down or right-to-left or down-to-up. This is randomized by the program.

Specifications of hard level yet to be finalized.

Devised mechanism for randomly arranging words in grid, for easy and medium level.

Wrote code for placing random letters into squares of the grid, where the words have not been placed.

Functions worked upon:

void hashtorandom(), int generategrid(), void Arrange(), string*
gettenwords(), void displaygrid().

Date: 25th October 2014. Time: 1.5 hrs

Changed mechanism of placing words into grid. Removed previous function Arrange() and wrote better function WordsIntoGrid() instead . Made process more efficient, modified the functions generategrid() and main(). Reduced redundancy of code.

Decided upon specifications for hard level and wrote code for the same. Currently, all three levels are functional. Graphics and user interface is the next stage of development of the project.

Specifications of Hard Level: All words will be arranged either horizontally or vertically(in any orientation).

Date: 29th October 2014 . Time: 2 hrs

Went through the chapters on simplecpp in the book by Dr.Abhiram Ranade. Took notes on what may come useful in writing our program.

Date: 15th November 2014. Time: 1 hrs

Made the main menu and sub menus for the program using simplecpp.

Date: 15th November. Time: 1 hr

Team Meeting

Date: 18th November 2014. Time: 5 hrs

Modified the previously written code for non graphic interface to accomodate for the graphics. Wrote the code for choosing the level, and displaying the grid appropriately. Was unable to think of a way to detect how individual words selected can be identified by the program. Devised a mechanism for selecting a letter on the grid when selected by using a two dimensional array of rectangle elements.

Date: 19th November 2014. Time: 6 hrs

Made the code for appearance of rectangles more efficient using dynamic allocation of rectangles. Added functionality to the return to main menu and exit buttons. Added a few design elements of the main menu for aesthetics. Started working on the submit solution button.

Added functionality to the other buttons on the main menu such as how to play, description of levels, and the exit button.

Date: 20th November 2014. Time: 5 hrs

Changed the scoring system on a per correct letter chosen basis. Wrote the code for the show solution button. Devised mechanism by which the various boxes on the grid are highlighted according to the specifications in the how to play. Added a few animations in the program just for the sake of it.

Date: 20th November. Time: 1 hr

Team Meeting

Date: 21st November 2014. Time: 4 hrs

Added the timer functionality to the program, using functions learnt from researching on the internet. Discovered many problems that occurred due to the slowness of execution of simplecpp. Tried to arrive at a compromise.

Wrote code for calculating the points, taking into account the time taken for the player to finish the game. Made provision for displaying score and the relevant data with which the score was calculated. For this, the conversion of int to string was needed. So had to investigate the use of stringstream. Modified the code for the boxes on the grid, disabling them when the game ends.

Modified the code for the structures declared, using constructors which accomplished the work more efficiently than the previously used methods.

Date: 23rd November 2014. Time: 7 hrs

Added provision for entering name in the beginning of the game. Fixed a few glitches that were happening during the execution of the program. Started building a provision for storing highscores in a file and displaying them. Finished writing the code, but the code did not work. Tried to debug, but failed. Spent many futile hours on this.

Date: 24th November 2014. Time: 8 hrs

Worked on trying to rectify the file management part of the program which was supposed to store the highscores. It didn't work. Nevertheless, left it in the final program.

Worked on documentation of the project. Reviewed and Edited documentation submitted by team members. Wrote the major part of the SRS and some part of the project report. In SRS, wrote the functions used and graphics section. Had to do essentially everything myself. Finalized all the documentation and submitted project successfully.