GCSE

COMPUTER SCIENCE 2018

Non-exam assessment - Software Development Task

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Name of Centre:	Darland High School	**Centre Number:**	68161

Refinement logbook	
Project title	ARI – Automated Readability Index
Start date	06/11/2018
End date	19/03/2019
Session 0	
Date	06/11/2018
Length of session	0.25 **[0.25 Hours Overall]**
Progress made in this session	Read through booklet
Problems encountered with the project	*N/A*
Changes made to original designs as a result of the problems	*N/A*
Action plan for next session	*N/A*
Project plan status (on time, ahead of time, behind time)	*N/A*

Action plan to manage time	*N/A*

Session 1	
Date	13/11/2018
Length of session	1.5 Hours **[1.75 Hours Overall]**
Progress made in this session	Started and completed the scope of the project, as well as thinking about the project
Problems encountered with the project	*N/A*
Changes made to original designs as a result of the problems	*N/A*
Action plan for next session	To begin on the design of the project in greater detail, possibly using flowcharts, and attempt to find and resolve any issues so far, and to repair them in the Scope of the Problem if found.
Project plan status (on time, ahead of time, behind time)	On time
Action plan to manage time	*N/A*
Session 2	
Date	04/12/2018
Length of session	2 Hours **[3.75 Hours Overall]**
Progress made in this session	Started to begin to design the program by looking at the input and output facilities, validation, authentication, etc. Used flowcharts to begin to design functions, as well as the overall program.
Problems encountered with the project	Discovered a few new variables and data that would be required for use.
Changes made to original designs as a result of the problems	Added the new variables and data to the scope of the problem.
Action plan for next session	To finish the design, with a complete set of flowcharts for every function, and then to begin implementing the design using Python.
Project plan status (on time, ahead of time, behind time)	On time, but looking like ahead of time if this rate of progress is kept up.

Action plan to manage time	Work at current pace, to keep ahead of time.

Session 3	
Date	15/01/2019
Length of session	1.75 Hours **[5.5 Hours Overall]**
Progress made in this session	Finished the design, adding some new features, and began the actual programming. Added an authentication function, an add user function, a menu system and began work on the add text function.
Problems encountered with the project	A few minor issues with the design, as it missed minor details, or didn't do things the easiest possible way.
Changes made to original designs as a result of the problems	Design was tweaked to add more variables, as well as the flowchart being modified slightly.
Action plan for next session	To continue to work on the program, making sure all the functions work, and to start to implement some validation methods, if time allows.
Project plan status (on time, ahead of time, behind time)	Ahead
Action plan to manage time	*N/A*

Session 4	
Date	22/01/2019
Length of session	2 Hours **[7.5 Hours Overall]**

Progress made in this session	Went back and refined/improved the Scope of the problem, mainly adding new variables/inputs/outputs/processes that had only been realised after the design/implementation. Re-did the flowcharts design, making them more function-friendly, as well as adding some new functions that I hadn't thought of previously. *These differences can be seen as Design_2.vsdx.* Continued to make the program, this time adding the code to calculate the amount of words, characters and sentences in the text, and calculate the ARI (which also took a LOT of testing to perfect).
Problems encountered with the project	
Changes made to original designs as a result of the problems	Scope was improved: added new_username, new_password1, new_password2, choice, number_of_keywords, etc Design was improved from Design_1.vsdx to Design_2.vsdx (changes can be seen).
Action plan for next session	To continue to work on the code, finishing the add and search functions, as well as improving the password authentication, by adding hashing.
Project plan status (on time, ahead of time, behind time)	On time, no issues
Action plan to manage time	Do preparation over the break, to research how to add the required features

Session 5	
Date	29/01/2019
Length of session	2 Hours **[9.5 Hours Overall]**
Progress made in this session	Implemented a search function into the program – albeit a poorly functioning one. Also made program read passwords from a file, rather than an internal variable. The program can now also write texts into a file (to be read later on). Made the passwords hashed, but only with a basic hash.

Problems encountered with the project	Search function can only search by title, and not keywords or age yet. Also, the program can't write the text along with the age and keywords, in a reasonable manner that it can read later on – it can only store the text as of now.
Changes made to original designs as a result of the problems	No changes made, just added new features.
Action plan for next session	To fix all the errors previously stated.
Project plan status (on time, ahead of time, behind time)	Still on time, but in risk of falling behind.
Action plan to manage time	N/A

Session 6	
Date	06/02/2019
Length of session	2 Hours **[11.5 Hours Overall]**
Progress made in this session	Completed the Search and Add functions, as well as performing testing on them and adding several verifications and checks. Also improved the add user system so that users couldn't be overwritten unless the user logged in was them. Cleaned up code, by adding comments and removing useless comments, as well as adding whitespace and blank lines where necessary, to make it easier to read. Program is now 100% operational and can perform all of the task required
Problems encountered with the project	A few errors encountered in the program, all of which can be found in the testing section of the report document. Nothing major that couldn't be fixed.
Changes made to original designs as a result of the problems	No alteration to old designs, only new ones. Some features were improved, such as the add user system, but not changed.
Action plan for next session	To add even more verifications and checks, to ensure the program cannot crash or be broken. Also to improve the authentication system to hash passwords. Mostly testing.

Project plan status (on time, ahead of time, behind time)	Ahead of time.
Action plan to manage time	N/A

Session 7	
Date	12/02/2019
Length of session	2 Hours **[13.5 Hours Overall]**
Progress made in this session	**Fully completed the program**, now with hashing, more verification checks, a function that clears the screen and a function that hides the user's inputs.
Problems encountered with the project	A few minor issues implementing the new systems, but nothing that couldn't be fixed, and are al resolved now.
Changes made to original designs as a result of the problems	A clear screen function, hashing system, hide input script and display all text entries were all adding, but not in the original design.
Action plan for next session	Amend the design document to accommodate all of the new changes added. Do extensive testing, and add any further verifications and/or checks to fix any errors encountered during testing.
Project plan status (on time, ahead of time, behind time)	Ahead of time, still have 6.75 hours left.
Action plan to manage time	N/A

Session 8	
Date	19/02/2019
Length of session	2 Hours **[15.5 Hours Overall]**

Progress made in this session	Updated design document to have new design features that were implemented in Session 7, as well as refining some of the designs to make them more efficient. Added these refinements to the actual code as well. Went over and checked the commenting of the code, adding new comments where necessary, removing useless ones and adding line numbers to them (e.g: SEE LINE 45) to make them more useful More testing was done.
Problems encountered with the project	N/A
Changes made to original designs as a result of the problems	Removed 'Search' function, added a 'Search Menu', 'Search Name', 'Search Data', 'Search All' and 'Cls' function. Also altered a few of the existing functions with minor tweaks. All these changes have been done in Design_3.vsdx
Action plan for next session	Further proof read the report, making sure everything that needs doing has been done. Need to do more testing as well.
Project plan status (on time, ahead of time, behind time)	Ahead of time: almost done and still with almost 5 hours left.
Action plan to manage time	N/A

Session 9	
Date	05/03/2019
Length of session	2 Hours **[17.5 Hours Overall] [2.5 Hours Remain]**
Progress made in this session	Proof read code, tidied up some messy areas (removing unrequired code, or repeated comments), added comments where appropriate, began to proof read documentation, finalised testing.
Problems encountered with the project	A few errors discovered during testing, can be seen in testing section of report.
Changes made to original designs as a result of the problems	All changes made to code can be seen beneath the testing table.
Action plan for next session	To finish proof reading the document.

Project plan status (on time, ahead of time, behind time)	Ahead of time.
Action plan to manage time	N/A

Session 10	
Date	12/03/2019
Length of session	1 Hour **[18.5 Hours Overall] [1.5 Hours Remain]**
Progress made in this session	Proof read everything. Went through code removing and adding comments, as well as checking existing comments' spelling. Added references to comments "See Line 10" etc to make them more helpful. Read through the whole report, checking for grammatical and spelling errors, as well as correcting them. Also added screenshots of the code to the report.
Problems encountered with the project	*N/A*
Changes made to original designs as a result of the problems	Minor alterations to comments in the code, and grammar of the report.
Action plan for next session	Finalise proof reading and make sure everything is perfected for hand in.
Project plan status (on time, ahead of time, behind time)	Ahead of Time
Action plan to manage time	*N/A*

Session 12	
Date	19/03/2019
Length of session	1.5 Hours **[20 Hours Overall] [0 Hours Remain]**

Progress made in this session	Fully proof read the Report and program, correcting spelling mistakes and tidying them up. Had to fix the code (broke it last time) as a variable was incorrectly named. Adding some basic validation to prevent texts from being too short. **FINISHED!**
Problems encountered with the project	'leyword_value' was used instead of 'keyword_value'. Easy fix.
Changes made to original designs as a result of the problems	Added verification so that the program will only allow texts of over 100 words. This is due to external research of the ARI formula, where I discovered this was required, as too short texts can generate negative reading ages.
Action plan for next session	*N/A. Final Session.*
Project plan status (on time, ahead of time, behind time)	On Time.
Action plan to manage time	*N/A. Final Session.*