A picture containing graphical user interface

Description automatically generated

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* **Introduction about the program**
* The platform that was used to develop the following codes for this assignment is Code Blocks.
* The first program was created and executed to output the square value of a number given by the user, then it was improved to input 20 numbers followed by one another within the same program to output the square value of each with the system time.
* Then the third program was improved to save the output into a text file (square.txt).
* The final program was modified to read or display the content of data that was written into the text file (square.txt in the third program) into the terminal with the current system time.
* **Different Technology and Codes use to develop above program.**
* There were different variables and functions used to generate the following codes. Special functions like **fprintf()** and **fopen/fclose** was used to write data into the text file using the terminal.
* The use of “**w**” mode to write data into the text file.
* The use of **while** and function **fgets()** to get the mac address into the text file.
* **Source Code**

**Q1.**

**Graphical user interface, text, application

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**Q2.**

Graphical user interface, text, application

Description automatically generated

**Graphical user interface, text, application

Description automatically generatedQ3.**

**Q4.**

**Graphical user interface, text, application

Description automatically generated**

**Graphical user interface, text, application

Description automatically generated**

* **Output of each program on the Screen**

**Q1.**

**Graphical user interface, text, application

Description automatically generated**

**Q2.**

**A screen shot of a computer

Description automatically generated**

**Q3.**

**A screen shot of a computer

Description automatically generated**

**A screen shot of a computer

Description automatically generated**

**Q4.**

**A screen shot of a computer

Description automatically generated**

**A screen shot of a computer

Description automatically generated**

**A screen shot of a computer

Description automatically generated**

**A screenshot of a computer

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* **Saved text files**

**A screenshot of a computer screen

Description automatically generated**

* **Discussion and knowledge that you have achieved**
* This assignment was very useful to me in acquiring knowledge about implementing new functions into the programs to write and read data from a text file that is stored inside a hard disk using the program itself. This assignment also enhanced my skills in finding new ways of coding and better way of solutions. This also helped me in finding out the way to access your computer’s mac address and the system time to be displayed within the program, into the text file and the terminal.
* By doing this assignment, I was able to gain knowledge about certain functions and variables by contrasting their differences (ie:printf and fprintf) when used accordingly. It also provided me a new experience in working with the terminal environment directly with the computers inner architecture rather than using the GUI.

**Thank You!**