Project Guidelines, ICS3U

Category	Knowledge /Understanding	Thinking/ Inquiry	Communication	Application	Total
Percentage	25%	25%	25%	25%	100%
Marks	25 marks	25 marks	25 marks	25 marks	100 marks
Marks Obtained					
Level					

Note: Detailed rubrics in a separate page **Weight**: 10% final marks

Overall Expectations:

A1. demonstrate the ability to use different data types, including one-dimensional arrays, in computer programs;
A2. demonstrate the ability to use control structures and simple algorithms in computer programs;
A3. demonstrate the ability to use subprograms within computer programs;
A4. use proper code maintenance techniques and conventions when writing computer programs;
B1. use a variety of problem-solving strategies to solve different types of problems independently and as part of a team;
B2. design software solutions to meet a variety of challenges;
B3. design algorithms according to specifications;
B4. apply a software development life-cycle model to a software development project.

Requirements of the project are:

1. You choose a software development problem for which you will develop a software [K/U 4 marks]
2. The software needs to have at least three lists (arrays) to store three types of information [K/U 6 marks]
3. The software needs to do at least the following operations:
    a. Enter data into the arrays [T/I 4 marks]
    b. Display data from the arrays [T/I 4 marks]
    c. Find an element from the arrays [K/U 4 marks]
    d. Modify an element in the arrays [T/I 4 marks]
    e. Display prompt message for every interaction by user [K/U 4 marks]
4. The software must have a nice menu (user interface) and the program should continue for another operation if the user does not ask to quit. [K/U 5 marks]
5. You must apply each phase of software development process [A 3 marks K/U 2 marks]
6. You need to use a project management tool to manage the project [A 3 marks]
7. At least two techniques for information gathering [C 5 marks]
8. Write requirement specification by analysis of information gathered. [C 5 marks]
9. Use at least two tools to represent the design of software. [A 4 marks]
10. Write pseudo code for each method including main to describe algorithm.

[C 5 marks T/I 5 marks]

11. Implement the design by writing a program that satisfies all requirements of the software. [A 15 marks]
12. Test the program and also each method by appropriate test cases and debug if there is any error. [T/I 8 marks]
13. Document the program for future maintenance (internal and external) [C 10 marks]

Write a report describing all of the above and submit the report and program file on the Moodle by the date given on the announcement section on the Moodle. You will show your daily work to your teacher, complete and submit the project by the deadline.