**Final Summative 2017 - ICS3U**

**Objective:** To demonstrate all programming concepts taught in the ICS3U course in a final programming project.

**Details:** Use the following listed steps as your guide through this summative. There will be 6 parts due in this summative. It is your groups’ responsibility to make sure they are completed and submitted properly on time. Failure to do so will result in a mark of zero. The excuse that “*my partner has the work”* will not be accepted. Everyone in the group must have a current copy of all parts of the project with them at all times.

1. Determine who you will work with. Groups of up to 3 people are allowed. Write their names in the boxes provided above the marking table.
2. With your group, brainstorm ideas for your project. You can create a C# GUI based application in Visual Studio, a Javascript Phaser based game or any other project using any programming language (make sure get your teacher’s approval first). Make sure to take into account your skill level and those of your group members when deciding.
3. Erase your class website. When your group has come to a consensus on what it will do, your next step will then be to create a new homepage on your class server space where you will outline your project to me. Some of the points to include the following:
4. The title of your project.
5. The basic premise of the project.
6. How the work will be evenly divided among the members of the group i.e. who will be doing what?
7. How you plan on implementing some of the more challenging requirements i.e. bubble sorting and arrays.
8. What screens will included in the program i.e. help, scores, menu etc.
9. What might be your greatest challenge in completing the project.
10. The initial project homepage will need to be completed and available by the end of class on **Tues. June 6, 2017**
11. Once approved, create a rough sketch of each screen in your program. Label the names of all objects. Write a short paragraph describing the role of each screen in your program. Add a link to this information on your summative website by the end of class on **Wed. June 7, 2017.**
12. Design an IPO, flowchart and pseudocode for the core problems in your program (you do not have to outline every single detail….just enough to show the general logic behind your problem). Add a link to this information on yor summative website by the end of class on **Fri. June 9, 2017.**
13. Next, write the code. Make sure you document as you code. Every file must include the four basic comments at the top (name, date, title, description). Highlight, with commented boxed asterisks, evidence of functions, with and without parameters, string functions, arrays and bubble sorting. A link to your text file containing the code is due by the end of class  **Thur. June 15, 2017.**
14. Your final website and project us due by the end of Fri. June 16, 2017. On it you will include the following:
15. The title of your project.
16. The course code.
17. The date.
18. The names of all members in your group (First Name Last Initial only).
19. A description of your project. Information on how to play/use your program.
20. Screenshots of every screen in your program.
21. Links to text files containing all your source code.
22. Links to the current project in zipped(compressed) format.

You must test the submitted project by having someone else visit your site. Have them download, unzip it, load it into the appropriate environment and run it. Have someone also test your website and all the links.

1. On **Mon. June 19, 2017** your peers will evaluate your summative project. They will rank the projects from best to worst. This is completely voluntary. Based on your standing you will be awarded up to 10 extra marks on top of your final mark. Basis for evaluation will be the website, code, functionality, purpose and complexity.

**Reminder**: Failure to hand in any part of the summative on the due dates listed will result in a mark of zero for that component. Exceptions will require a written and signed note by the parent/guardian of all members in the group.

**Marking Scheme[ ] [ ] [ ]**

|  |  |  |  |
| --- | --- | --- | --- |
| Category | Description | Value | Mark |
| Presentation | Planning | 10 |  |
| Written Plan | Planning | 10 |  |
| IPO | Algorithm Design | 10 |  |
| Flowchart | Algorithm Design | 10 |  |
| Pseudocode | Algorithm Design | 10 |  |
| Documentation | Code | 10 |  |
| Formatting | Code | 10 |  |
| Naming | Code | 10 |  |
| Variable Declaration | Code | 10 |  |
| Selection | Code | 10 |  |
| 2 Functions without Parameters | Code | 10 |  |
| 2 Functions with Parameters | Code | 10 |  |
| 2 String Functions | Code | 5 |  |
| 1 Arrays | Code | 5 |  |
| 1 Sorting | Code | 5 |  |
| GUI | Project | 10 |  |
| Functionality | Project | 30 |  |
| Complexity | Project | 30 |  |
| Purpose | Project | 10 |  |
| Web Page | Project | 35 |  |
| TOTAL |  | 250 |  |
| Robocode Bonus | 10 |  |
| Peer Evaluation | 10 |  |
| FINAL TOTAL |  | |
| Percentage |  |  | |

The summative is worth 15% of your final mark. The exam is worth the other 15%. There will not be a formal review for your exam. Completing this assignment is adequate preparation for the exam.