

# ICS4U Final Project Details - 15% of final mark

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**What you need to submit:** (The due dates are listed under timeline.)

## **A proposal of your final project:**

In a group of 1 or 2, clearly state what the final program your group intend to create will do. Explain the reason(s) why your group has chosen this topic. Two pages maximum.

*Hint:* Write programs that are useful to someone. See if your other teachers have tasks that you can help using a computer program.

## **A program planning document:**

A rough diagram of the GUI. A flowchart structured diagram or pseudocode demonstrating interaction between functions, procedures, event listeners, variables, files IO, etc. A description of your data modeling (classes, data structures) process. A list of tasks that each group member will be responsible for.

## **A progress report:**

A brief description of what has been completed and what needs to be done. In addition, mention any challenges that has been overcome and challenges that needs to be resolved. A copy of your Gantt Chart 1 page per group.

## **A testing report:**

A complete list of the testing processes that you have used to test your code.

## **At the final evaluation meeting:**

You have to hand in the following:

- A list of contributions from each group member.
- An instruction manual in how to use the program.
- Upload program and any data files (zipped) to Moodle.

The meeting itself consists of:

- Prepare a demo of program with your own computer to show me.
- Answer a few questions regarding your code and how your program works.

## **The program itself:**

- Must contain at least one OOP class.
- Must contain a GUI of some kind.
- Must involve file IO.
- Must not crash.
- Must contain some new learning.

### Timeline:

**Jan 9<sup>th</sup>** – An **approved** proposal.

**Jan 15<sup>th</sup>** – A progress report (meeting)

**June 19<sup>th</sup>** – Program should be near completion. Begin testing and manuals.

**June 24<sup>th</sup>** – Program demonstration meeting. (Last day of classes)

### Marking scheme

#### **Group**

Proposal:	1	2	3	4
Program Planning document	1	2	3	4
Gantt Chart	1	2	3	4
Progress Report (C):	1	2	3	4
Testing Report (K):	1	2	3	4
Instruction Manual (A):	1	2	3	4
Program Demo (C):	1	2	3	4
GUI Design (K&A):	1	2	3	4

#### **Individual**

Final Code: (based on code you did if in a group)				
Use of proper variables (K&A):	1	2	3	4
Use of proper header & comments (C):	1	2	3	4
Readability (A):	1	2	3	4
User Friendliness (K):	1	2	3	4
OOP Implementation (T&A): * <b>x2</b>	1	2	3	4
File I/O Implementation(K&A)	1	2	3	4
Difficulty (T&A): * <b>x2</b>	1	2	3	4
Additions (T&A):	1	2	3	4
Proper use of class time (K&A):	1	2	3	4
Responses to questions during final evaluation (C):	1	2	3	4

**TOTAL / 80**

## ICS4U Final Project Rubric

Category	Level 1	Level 2	Level 3	Level 4
<b>Knowledge/ Understanding</b>	<ul style="list-style-type: none"> <li>• Demonstrates limited knowledge and understanding of programming terminology</li> <li>• Demonstrates limited knowledge and understanding of proper coding techniques.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates some knowledge and understanding of programming terminology</li> <li>• Demonstrates some knowledge and understanding of proper coding techniques.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates considerable knowledge and understanding of programming terminology</li> <li>• Demonstrates considerable knowledge and understanding of proper coding techniques.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates thorough knowledge and understanding of programming terminology</li> <li>• Demonstrates thorough knowledge and understanding of proper coding techniques.</li> </ul>
<b>Thinking</b>	<ul style="list-style-type: none"> <li>• Instructions are produced with errors.</li> <li>• Program is written with incorrect techniques and methods</li> <li>• uses critical thinking processes with limited effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>• Instructions are produced functionally.</li> <li>• Program is written with poor techniques and methods</li> <li>• uses critical thinking processes with some effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>• Instructions are produced with accuracy.</li> <li>• Program is written with correct techniques and methods</li> <li>• uses critical thinking processes with considerable effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>• Instructions are produced with creativity and accuracy.</li> <li>• Program is written with advanced techniques and methods</li> <li>• Uses critical thinking processes with a high degree of effectiveness</li> </ul>
<b>Communication</b>	<ul style="list-style-type: none"> <li>• Uses technical terminology incorrectly.</li> <li>• Instructions are incomplete.</li> <li>• Instructions are aimed at the wrong level for the audience.</li> </ul>	<ul style="list-style-type: none"> <li>• Uses technical terminology correctly sometime.</li> <li>• Instructions are complete, but difficult to follow.</li> <li>• Instructions are confusing to the target audience</li> </ul>	<ul style="list-style-type: none"> <li>• Uses technical terminology correctly at most of the time.</li> <li>• Instructions are complete.</li> <li>• Instructions are understandable to the target audience.</li> </ul>	<ul style="list-style-type: none"> <li>• Uses technical terminology correctly at all time.</li> <li>• Instructions are complete and easy to follow.</li> <li>• Instructions are aimed at the right level for the audience.</li> </ul>
<b>Application</b>	<ul style="list-style-type: none"> <li>• Demonstrates poor understanding between the program and its visual representation.</li> <li>• Instructions cover little part of the program.</li> <li>• Code is written with few proper code maintenance techniques.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates some understanding between the program and its visual representation.</li> <li>• Instructions cover some aspect of the program.</li> <li>• Code is written with some proper code maintenance technique.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates good understanding between the program and its visual representation.</li> <li>• Instructions cover most aspect of the program.</li> <li>• Code is written mostly with proper code maintenance technique.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates excellent understanding between the program and its visual representation.</li> <li>• Instructions cover all aspect of the program.</li> <li>• Code is written with proper code maintenance technique.</li> </ul>