# ICS4U - Final Project Rubric

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| ***Design (10 Think)***   * Written explanation of design. * Clear goals of design and logic of how it will work. * UML documenting all objects in design * UML are completely formatted * Flowcharts for any complex methods * Creative design which has unique characteristics. * Proper use of OOD (not just data holders). * Designed with either polymorphism OR recursion in mind * Designed to incorporate one or more ADTs * Project Management tools use effectively to plan | ***Documentation (10 Comm)***   * Author’s Name(s), Date/Purpose/Course in all files * Headers for each method/class * Proper comments all selection statements * Proper comments explaining looping statements * Use of blank lines to separate important sections of code * Proper indentation throughout * Completed project report (all sections). * Project report is well written and easy to follow * Written explanation of how to use the software (User manual) * Project Management tools used to organize information |
| ***Implementation (12 Know)***   * Implements all aspects of the design * Free from syntax errors (It runs) * Class name and file name match submitted * Good use of variables (including names) * Good use of methods (including names) * Good use of classes and objects * Good use of attributes within objects * Good use of ADTs to storage information * Good use of traversal of ADTs * Good use of method overloading or overriding * Good use of algorithm design * Efficient designs (no useless/repetitive coding) | ***Testing & Deployment (10 App)***   * All objects include test drivers * Testing cases demonstrate a variety of testing cases (individual objects). * Integrated testing documented (all objects) * Integrated testing demonstrates a breadth of testing cases. * Boundary test cases used * Performance testing is considering and demonstrated * Whole program works without error (any!!) * All files are appropriately named * Files and documents are organized and in appropriate folders * Software was portable (able to move and recompile without changes) |

# Marking

Each project will receive a project mark based on the above checklist. The level will be calculated as follows:

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| **Category** | **Level 0** | **Level 1** | **Level 2** | Level 3 | **Level 4-** | **Level 4** | **Level 4+** |
| **Communication** | Less than 5 | 5-6 checks | 6-7 checks | 7 checks | 8 checks | 9 checks | 10 Checks |
| **Thinking** | Less than 5 | 5-6 checks | 6-7 checks | 7 checks | 8 checks | 9 checks | 10 Checks |
| **Knowledge** | Less than 5 | 5-6 checks | 7-8 checks | 9 checks | 10 checks | 11 checks | 12 Checks |
| **Application** | Less than 5 | 5-6 checks | 6-7 checks | 7 checks | 8 checks | 9 checks | 10 Checks |

Adjustments may be made based each individuals persons mark based on their contributions to the project (both stated and observed by the teacher). For examples marks may be deducted for days wasted not working on your project. It is expected that this project represents your own work. Any assistance gained from an outside source should be clearly documented. Work that is not believed to have been produced by the student will be given a mark of zero. Oral questioning may take place if concerns arise as to the authorship of the work handed in but it not required. Use of objects and components not learned in this class is allowed but will almost certainly lead to inspection of the project unless brought to the attention of the teacher earlier. In short, make sure you understand every aspect of your own project.