

## ICS4U - Software Management (Documentation and Testing)

Items	Needs Improvement (0.5 Points)	Beginning (2 Points)	Developing (2.5 Points)	Accomplished (3 Points)	Exemplary (4 Points)
Documentation & Testing Plan					
A4.1 - work independently, using support documentation (e.g., IDE Help, tutorials, websites, user manuals), to resolve syntax issues during software development; [A]	Cannot work independently using support documentation to resolve syntax errors	Cannot consistently work independently, and cannot resolve the majority of syntax errors	Can work independently, but cannot resolve the majority of syntax errors	Can work independently and can resolve the majority of syntax errors	Can work independently, and can resolve all syntax errors
A4.2 - develop and implement a formal testing plan (e.g., unit testing, integration testing, regression testing) for a software project to ensure program correctness; [A]	No formal testing plan exists	Testing plan exists and does not cover the majority of situations	Testing plan exists, might not be followed, and covers some of the situations	Testing plan exists, is followed, and covers all typical situations	Testing plan exists, is followed, and covers all typical, extreme cases, and consideration for atypical situations was included
A4.3 - create fully documented program code according to industry standards (e.g., doc comments, docstrings, block comments, line comments); [C] Score = points x 1.4	No/few comments exist in the entire project	In-line comments exist within the program	In-line comments, and some industry standard documentation (i.e. Javadocs/docstrings) exist	In-line comments and industry standard documentation (i.e. Javadocs/docstrings) exist for all functions/methods/classes created	All in-line comments assist in understanding the program. All industry standard documentation (i.e. Javadocs/docstrings) are in the appropriate format and match industry standards
A4.4 - create clear and maintainable external user documentation (e.g., Help files, training materials, user manuals, website, etc.). [C] Score = points x 1.1	External user documentation is unclear, and created in a format that is unmaintainable	External documentation is unclear and is difficult to follow. The documentation is created in a format that is difficult to maintain	External documentation is unclear, and created in a format that is easy to maintain, but simplistic	External documentation is mostly clear, and is created in a format that is easy to maintain	External documentation is very clear and easy to understand. The documentation is created in a very easy to maintain format
B1.3 - Create user documentation and training materials, as if you were handing off this project to another programming team; [C] Score = points x 1.1	No user documentation or training materials created	Minimal user documentation and/or training materials created	User documentation and/or training materials exist, but are difficult to navigate	User documentation and/or training materials exist	User documentation and training materials exist. They have been well laid out, and planned to ensure ease-of-transition