CSC 301: INTRODUCTION TO SOFTWARE ENGINEERING

FINAL RELEASE GRADING RUBRIC

The assignment is graded out of 100. Final scores are rounded to the nearest whole point.

Method of score computation:

For each element a rating is assigned based on the rubric. Each rating has an associated point value: Excellent 100, Good 75, Adequate 65, Marginal 50, and Inadequate 0.

The scores for the elements are combined according to their respective weights to reach a score for that assignment part (out of 100).

The scores for the assignment parts are combined according to their respective weights to reach an overall score for the assignment (out of 100). The assignment grade is that overall score rounded to the nearest point.

PART 1: SATISFACTION [50% OF TOTAL]

CLIENT OVERALL SATISFACTION [25% OF PART]

Excellent	Good	Adequate	Marginal	Inadequate
-The team is engaged and delivers on time according to the mutually agreed delivery schedule. -The deliverables are of very high quality. - The team consults me about important decisions. - The software design takes my input into consideration. All my requirements have been implemented to complete satisfaction. -The process of installation of the software is straight forward, installation instructions are clear and no additional input from the team is needed in order to complete installation. -The software runs without glitches and satisfies all requirements.	-The team is engaged and delivers on time according to the mutually agreed delivery schedule. -Although the deliverables are of high quality, some minor issues, largely cosmetic may be present. - The team consults me about important decisions. - The software design takes my input into consideration. All my requirements have been implemented to satisfaction, however some cosmetic requirements may have been overlooked. -The process of installation of the software is straight forward, installation instructions are clear and no additional input from the team is needed in order to	-The team is engaged and delivers on time according to the mutually agreed delivery schedule with one or two exceptions. -Although the deliverables are of good quality, some technical issues may be present. - The team consults me about most decisions. - The software design takes my input into consideration with some exemptions. Most of my requirements have been implemented to satisfaction, however a few of them have been overlooked. -The process of installation may suffer from a few glitches. -The software runs mostly without glitches and satisfies	-The team is has not delivered on time in many occasions. -Although the deliverables are of acceptable quality, several technical issues may be present. - The team fails to consult me about important decisions most of the time. - The software design takes little of my input into consideration. Some of my requirements have been implemented to satisfaction, many of them may have been overlooked. -The process of installation suffers from glitches and needs constant attention. -The software runs largely without glitches, however it does not satisfy many of my requirements. - In many occasions	-The team has not delivered or the delivered material does not satisfy my requirements. -The team has failed to consult me, did not show up on the meetings and has been largely disrespectful to me.

- The team is respectful of my time. The team has been punctual in all meetings, has been well prepared and has been willing to consider all user requirements. - The team sends appropriate and timely reminders.	complete installation. -The software runs without glitches and satisfies all requirements, with the exception of some cosmetic issues.. - The team is respectful of my time. The team has been punctual in all meetings, has been well prepared and has been willing to consider all user requirements. - The team sends appropriate and timely reminders.	most requirements, with one or two exceptions. - The team is somewhat respectful of my time. The team has been punctual in most meetings with one or two exceptions, has been somewhat prepared and has been willing to consider most user requirements. - The team sends appropriate and timely reminders most of the time.	the team has been disrespectful to my time.	

CLIENT COMMUNICATION SATISFACTION [25% OF PART]

Excellent	Good	Adequate	Marginal	Inadequate
- The team does their homework before a meeting. The team has been well prepared in all the meetings, it has presented the current status of the project using clear, concise and comprehensive documentation. -All the documents presented in the meetings have been formulated from the user's point of view. Any technical details related to the development and testing process have been explained in a simple language. Any technical concepts have been illustrated with adequate examples to make them comprehensible. - Asks good questions. All questions are formulated clearly and from the user's point of view. - Listens actively, taking adequate notes, dedicates its full attention to the listener. - Exhibits flexibility in meeting times and deliverables.	- The team does their homework before a meeting. The team has been well prepared in all the meetings, it has presented the current status of the project using comprehensive documentation. Any issues have been minor and formatting related. -All the documents presented in the meetings have been formulated from the user's point of view. Any technical details related to the development and testing process have been explained in a mostly simple language. Any technical concepts have been illustrated with examples, although one of them needed some more explanations. - Asks good questions. All questions are formulated clearly and from the user's point of view. - Listens actively, taking adequate notes, although it may have not dedicated its full attention to the listener in one occasion. - Exhibits flexibility in meeting times and deliverables.	- The team does their homework most of the time with a few exceptions . The team has been prepared in most of the meetings, it has presented the current status of the project using documentation which may lack some necessary details. -Most of the documents presented in the meetings have been formulated from the user's point of view. Some of the technical concepts were not explained clearly. - Asks good questions most of the time. Some questions are not formulated clearly and do not consider user's point of view. - Listens actively, taking adequate notes most of the time. - Exhibits a lesser degree of flexibility in meeting times and deliverables.	- The team rarely does their homework. The team has been unprepared in most of the meetings and rarely has brought the related documentation. -Few of the documents presented in the meetings have been formulated from the user's point of view. Explanations of technical concepts are loosely formulated. - Most of the questions are not formulated clearly and do not consider user's point of view. - Rarely listens actively or takes notes. - Exhibits little flexibility in meeting times and deliverables.	-The team does not show up in the meetings or comes unprepared, does not present any documentation related to the project, and/or does not communicate effectively with the client.

THIRD PARTY ASSESSMENT [50% OF PART]

Excellent	Good	Adequate	Marginal	Inadequate
-The team chose a project that involves a difficult problem that presents significant engineering challenges -The team applied marked creativity and successfully applied a novel approach to their problem -The team produced a highly usable product -The software performs correctly and without issues; everything it does it does well -A highly professional presentation; polished and impressive -A highly engaging video that complemented the presentation	-The team chose a project of a moderate difficulty that requires application of novel approaches to some parts of the project -The team produced a solution that shows creativity in the approach and / or solution -The product is usable; usability was considered in the design -The software generally performs correctly with only minor issues; some fit and finish issues may remain -An organized and complete presentation; generally well done -A well-produced video that generally complemented the presentation and engaged viewers	-The team chose a problem that, while it involves some engineering work, is readily addressed using common software development tools and techniques -While creative in some aspects, the solution was ultimately pedestrian -The product is largely usable, though it could be improved -The software generally performs well though some features may need to be reworked; there may be bugs but they are easily worked around -A presentation with no serious issues; though perhaps less than engaging or impressive in parts -A workmanlike video; did the job and satisfied the viewer for the most part	-The team chose a project that is straightforward to implement; the job was really only one of execution -The approach and solution to the problem evince only a modicum of creativity -The product presents serious issues for usability -The software has serious defects that make it very difficult to use for the intended purpose -A presentation with that showed the product but may have series inadequacies in some parts -The video met the minimum requirements of the assignment; but was entirely unimpressive	-The team had a straightforward project, but failed to execute on it -The approach to the problem was prosaic, despite the opportunity for creativity -The product has serious usability issues, to the point of being unusable in at least some aspects -A deficient presentation -The software has defects such that it is unsuitable for the intended purpose in serious respects

PART 2: SUBMISSIONS [40% OF TOTAL]

SCREENCAST AND PRESENTATION [30% OF PART]

Excellent	Good	Adequate	Marginal	Inadequate
-The screencast satisfies the following requirements: • video is of very high quality and engaging for the viewer • it has been produced using an appropriate screencast producing tool. • is of the appropriate length (~5min), and contains an introduction tailored to hook up the viewer since the first few seconds. • contains a clear explanation what is the need fulfilled by this product and where and why this need is prevalent. • contains a clear and concise explanation of the solution and how does this solution compares to standard commercially available software. • uses elements from the analysis and the solutions - the most engaging personas and user stories. • explains clearly the benefits the users can derive from the offered features. -The presentation accompanying the screencast consists of 5-7 slides describing your software product: • contains bulleted lists with short and precise explanations of key ideas shown on the screencast. • The content uses the appropriate images/colours/contrasts to attract the listener's attention. • The content is grammatically correct and has no spelling errors.	-The screencast includes all required elements, though the video quality may have some minor technical issues. -The timing is of appropriate length -The presentation has all the required elements and is of appropriate length. -Any writing issues are minor and largely mechanical	-The screencast includes most elements; some may lack in detail or justification -The timing may be somewhat brief / overly long -The presentation may have some issues with writing	-The screencast includes many required elements; some may be incomplete or omitted and/or timing may be wrong -Writing of the presentation may suffer from some issues that impair its comprehensibility.	The screencast is omitted or seriously deficient -If included, may have significant technical issues/lack of content the severely impair comprehensibility. The presentation is omitted or may have significant issues that severely impair its comprehensibility.

BURN DOWN CHART [5% OF PART]

Excellent	Good	Adequate	Marginal	Inadequate
-Chart includes planned work and actual work, each clearly labelled -All axes labelled and scale uses appropriate units and units are clearly indicated -Chart is professionally presented and easy to interpret -Estimated and actual velocity calculated	-Chart shows planned work and actual work, however labelling may be unclear -Axes may be missing labels -Scale uses appropriate units; units are indicated or may be inferred from context -May be some minor issues with chart readability or presentation -Estimated and actual velocity calculated	-Chart shows planned work and actual work which may be distinguished from context, but are unlabelled -Axes may be missing labels -Scale may have some issues with interpretability -May be issues with chart readability or presentation -Estimated and actual velocity, but one or both may have a computation issue	-Planned work and/or actual work series are not clearly distinguished; one or more series may be missing entirely -Axes may be missing labels -Scales may not be indicated or are marked incorrectly -Chart has significant issues with readability or presentation -One or both of estimated and actual velocity may be omitted	-Burn down chart is not produced or fails to include required elements -Chart has issues with readability or presentation that cause it to be difficult or impossible to interpret

MEETING MINUTES AND ATTENDANCE SPREADSHEET [5% OF PART]

Excellent	Good	Adequate	Marginal	Inadequate
-Meeting minutes evidence appropriate frequency of meetings -Meeting activities recorded in detail -Attendees listed and date and time of meeting noted -Action items clearly recorded and have deadlines -Evidence that all meetings recorded (including tutorial) -Separate attendance log spreadsheet is included and complete	-Meeting minutes show evidence of regular meetings -Meeting activities recorded with some detail -Date and time of meeting noted -Action items recorded but some may lack deadlines -Evidence that all meetings recorded (including tutorial) -Separate attendance log spreadsheet is included and complete, but may have minor issues	-Meeting minutes evidence various meetings through the sprint -Meeting activities recorded -Date of meeting recorded -Action items recorded, but may not be in sufficient detail for follow-up/lack deadlines -Evidence that most meetings recorded -Separate attendance log spreadsheet may be missing but attendance is in the meeting minutes	-Evidence of insufficient meeting frequency -Meeting minutes highly incomplete -Meeting record may lack date/time information -Action items difficult to comprehend without additional context -Various meetings omitted or poorly recorded -Separate attendance log spreadsheet not included or is deficient	-No meeting minutes or other evidence of meetings

REMAINING UNIMPLEMENTED USER STORIES [5% OF PART]

Excellent	Good	Adequate	Marginal	Inadequate
-Unimplemented user stories have been identified; selection is clearly justified -There is an explanation why these user stories are left unimplemented. -With the assumption that the project could continue, a plan for continuing development is clearly documented and represents a realistic, achievable plan. -Reasons are clearly explained to a high standard -Explanation is of appropriate length and is well-written	-Unimplemented user stories have been identified; selection is clearly justified leaving out some minor technical details. -There is an explanation why these user stories are left unimplemented. -With the assumption that the project could continue, a plan for continuing development is documented, although the documentation may lack a few details. -Reasons are clearly explained with some minor issues. -Explanation is of appropriate length and is well-written	-Most of unimplemented user stories have been identified; selection is somewhat justified. -There is little explanation why the user stories were left unimplemented. -With the assumption that the project could continue, the plan for continuing development may contain some inaccuracies. -Reasons are somewhat clearly explained. -Explanation is not of appropriate length or is not well-written.	-Few unimplemented user stories have been identified; selection is not that well justified. -There is no plan or an unclear plan for continuing development is provided. -Explanation is not of appropriate length or is not well-written.	-There are no unimplemented user stories identified and/or no plan for continuing development.

WORKING CODE [10% OF PART]

Excellent	Good	Adequate	Marginal	Inadequate
-Only the code of working software has been submitted. All non-fully implemented parts have been cut to the branch. -Evidences a mastery of "best practices" for software implementation -All required functionality included -Code changes highly targeted -Highly adaptable coding techniques; use of implementation techniques that facilitate future changes and maintenance	-Only the code of working software has been submitted. All non-fully implemented parts have been cut to the branch. -Evidences facility with standards of software implementation practices -All required functionality included -Code changes largely isolated to appropriate components -Code does not present significant barriers to future changes or maintenance; code allows for easy replacement of more specialized portions of implementation	-The code of working software has been submitted along with a few modules of non-working parts. -Evidences an understanding of good software implementation -Most required functionality included, however some edge or error cases unhandled -May be some code changes that evidence unnecessary reengineering -Code may present some barriers to future changes or maintenance -Most methods and classes are covered	-The code of working software has been submitted along with a lot of modules of non-working parts. -Evidences some familiarity with good software implementation practice -Core required functionality implemented -Code changes are made across the codebase, not limited to components that required modification to implement the user story	-Little evidence of even superficial understanding of software implementation best practice -Significant required functionality omitted or unrelated code has been submitted.

TEST CASES [10% OF PART]

Excellent	Good	Adequate	Marginal	Inadequate
-Tests provided for all user stories and the correspondence between tests to user stories is clearly delineated in the tests / test plans directly or in external documentation -Automated testing is favoured; use of manual testing is limited to scenarios difficult (from an engineering perspective) to automate and justification for the decision to manual test those scenarios is provided -Complete positive and negative tests cases for all user interface -Tests include all input conditions and expected results -Tests include those for error conditions	-Tests provided for all user stories and the correspondence between tests to user stories is clearly delineated in the tests / test plans directly or in external documentation -Automated testing is generally favoured, use of manual testing is largely limited to scenarios difficult (from an engineering perspective) to automate, however use of manual testing is not fully justified -Positive and negative tests cases for all user interface -Tests include most input conditions and expected results -Some error conditions may be untested	-Tests provided for all user stories however the correspondence between tests and user stories is not clearly outlined in either the tests or external documentation -While some tests may be automated, manual testing is broadly employed even in scenarios technically amenable (from an engineering perspective) to automation -Some positive and negative tests case sets may be lacking -Tests include some input conditions and expected results -Error testing is lacking	-Tests provided for most user stories -Correspondence between tests and user stories may be unclear -While some tests may be automated, manual testing is broadly employed even in scenarios technically amenable (from an engineering perspective) to automation -Numerous methods may remain and classes untested -Only basic input conditions and expected results tested -No testing for Errors	-Tests are very sparse -Expected results may be invalid or incorrect -No demonstration of a clear strategy for testing -Tests not provided for many user stories

DEVELOPER DESIGN DOCUMENT [10% OF PART]

Excellent	Good	Adequate	Marginal	Inadequate
-Design Document includes all required elements to a sufficient level of detail -Architecture of the software -How is the code organized into modules -How it interfaces with existing libraries support software -Known bugs -Features included and, optionally, things to address in next release -Design Document is of appropriate length and is well-written	-Design Document includes all required elements, though some may lack in detail or justification -Design Document is of appropriate length -Any writing issues are minor and largely mechanical	-Design Document includes most elements; some may lack in detail or justification -Design Document may be somewhat brief / overly long -May have some issues with writing	-Design Document includes many required elements; some may be incomplete or omitted -Writing may suffer from issues that impair comprehensibility	-Design Document is omitted or seriously deficient -If included, may have significant writing issues the severely impair comprehensibility

REFLECTIONS ON DEVELOPMENT PROCESS [25% OF PART]

Excellent	**Good**	**Adequate**	**Marginal**	**Inadequate**
-Reflection includes all required elements to a sufficient level of detail • Explanation of tools/techniques used and their effectiveness • Things you didn't do • Things you learned from the problems you encountered -Reflection is insightful and introspective -Reflection is of appropriate length and is well-written	-Reflection includes all required elements, though some may lack in detail or justification -Reflection is of appropriate length -Reflection is generally insightful -Any writing issues are minor and largely mechanical	-Reflection includes most elements; some may lack in detail or justification -Reflection may be somewhat brief / overly long -Reflection is somewhat insightful -May have some issues with writing	-Reflection includes many required elements; some may be incomplete or omitted -Writing may suffer from issues that impair comprehensibility	-Reflection is omitted or seriously deficient -If included, may have significant writing issues the severely impair comprehensibility

DEPLOYMENT [10% OF TOTAL]

INSTALLER / DEPLOYMENT [50%]

Grader will use the relevant rubric

Installer

Excellent	Good	Adequate	Marginal	Inadequate
-Installer launches product with a single double click or launching an executable (no switches) -Installer is easy-to-use and requires a minimum of user input	-Installer launches product with a single double click or launching an executable (no switches) -Installer is generally easy-to-use	-Installer launches product with a single double click or launching an executable (no switches) -Installer is generally usable, but may not be easy to use or may require reference to external documentation	-Installer launches product with a single double click or by launching an executable (which may require switches) -Installer has usability issues	-Installer doesn't work or suffers from severe issues (including severe usability issues)

Deployment

Excellent	Good	Adequate	Marginal	Inadequate
-Software is deployed to the client site and is ready for use by the client **OR** -A clearly articulated deployment plan is provided that is in sufficient detail to understand all work involved and timelines for completion before the end of the exam period; team members responsible for deployment work clearly identified	-Software is deployed to the client site and is ready for use with a minimum of further set-up **Or** -A deployment plan is provided that is in sufficient detail to generally understand the work involved; timeline may be implicit; team members responsible may not be clearly identified	-A deployment plan is provided that general outlines the work required to deploy it; timeline may be implicit; team members responsible may not be clearly identified	-Software is deployed to a test site only **Or** -A plan to deploy by the end-of-exams is given but it is lacking in some important details	-Software is not deployed and there is no plan in lieu

DEPLOYMENT FUNCTIONALITY [20% OF PART]

Excellent	Good	Adequate	Marginal	Inadequate
-Installer / deployment includes all assets (images etc) and dependencies (including data)	-Installer / deployment includes all assets (images etc.) and dependencies but data may need to be deployed separately	-Installer / deployment includes all assets but dependencies or data may need to be installed/deployed separately and instructions are provided for same	-Installers / deployment omits assets or dependencies and they need to be installed separately, but they are only identified and instructions for installation / deployment of them are not provided	-Installer / deployment omits assets or dependencies but the omissions are not clearly articulated

USER GUIDE [30% OF PART]

Excellent	Good	Adequate	Marginal	Inadequate
-User operation of product is clearly explained to a high standard -Includes installation instructions, details about platform, details about other packages -Writing is of appropriate level of detail. Diction is appropriate for an end-user audience and is well-written	-User operation of product is comprehensible -Includes installation instructions, details about other packages but may omit information /details about platform -Writing is of appropriate level of detail. Diction is appropriate for an end-user audience -Any writing issues are minor and largely mechanical	-User operation of product is understandable with some effort; however some gaps may exist in the explanations -May omit several of installation instructions, details about platform, details about other packages -Wording somewhat poorly phrased or may evidence poor word choice -May have some issues with writing	-User operation of product is poorly explained and may be confusing to a reviewer -May omit several of installation instructions, details about platform, details about other packages -Writing may suffer from issues that impair comprehensibility	-May have significant writing issues the severely impair comprehensibility

TROUBLESHOOTING GUIDE [+20% OF PART (BONUS)] (OPTIONAL)

Excellent	Good	Marginal	Omitted (0%)
-Troubleshooting of product is clearly explained to a high standard, with all reasonable common scenarios explained and multiple problems addressed -Writing is of appropriate level of detail. Diction is appropriate for an end-user audience and is well-written	-Troubleshooting of product addressed for most common scenarios -Writing is of appropriate level of detail. Diction is appropriate for an end-user audience -Any writing issues are minor and largely mechanical	-Troubleshooting guide addresses basic scenarios Troubleshooting of product is poorly explained and may be confusing to a reviewer -Writing may suffer from issues that impair comprehensibility	Not provided