**CS3307 Group Project - Final Project Submission**

**Fall Session 2017**

**Project Description**

This stage is part of the group project for CS3307.  A full description of the project [can be found here](https://owl.uwo.ca/access/content/group/df1797bc-56ba-4230-9065-cdbd30035a7d/ProjectSpecifications.html).

**Purpose of the Stage**

The general purpose of this assignment is to conclude development on your project, revising your design, and tracking your progress along the way,  In particular this stage will give you further experience in:

* developing a large software project in C++
* revising and updating UML diagrams for a large software project as development proceeds
* using Jira for simple agile task management

**Assigned**

Thursday, November 9, 2017 (please check the main [course website](http://owl.uwo.ca/) regularly for any updates or revisions)

**Due**

This stage is due Tuesday, November 28, 2017 by 11:55pm (midnight-ish) through an electronic submission through the [OWL site](http://owl.uwo.ca/). If you require assistance, help is available online through [OWL](http://owl.uwo.ca/).

**Late Penalty**

Late assignments will be accepted for up to two days after the due date, with weekends counting as a single day; the late penalty is 20% of the available marks per day. Lateness is based on the time the assignment is submitted.

**Group Effort**

This stage of the project is expected to be a group effort, with each member of the group contributing equally in a reasonable fashion.   Feel free to discuss ideas with other groups in the class; however, your submission must be the work your own group. If it is determined that you are guilty of cheating on the assignment, you could receive a grade of zero, and you may be penalized further by the value of the assignment. That is: this assignment is worth 25% of the overall mark; if you cheat, you could receive a grade of -50%, and your maximum possible mark in the course would be 50%.

**What to Hand in**

Your final project submission, as noted above, will be electronically through [OWL](http://owl.uwo.ca/).  You are to submit all relevant documentation and code as discussed below.  Only one submission per group is necessary.

**Stage Task**

For your final submission, you will wrap up development on your project.  As necessary, you will update your designs from Stages 1 and 2, and you will need to track your progress on tasks using Jira.  Details on this work are provided below.

**Implementation**

At this point you should have all of your project's user stories implemented and fully working.  The required functionality, as discussed in the Project Specifications document linked above, implemented and documented correctly will yield 80% of your grade for this part of your submission.  Additional functionality will make it possible to get a full 100% if everything is done correctly.  (If you haven't done so in earlier stages, you should have user stories for your additional functionality recorded and in Jira to track their progress ...)

Code for your submission should be stored in the git-based Bitbucket repository service set up for your group as discussed on the OWL site.  This will facilitate sharing amongst your group members as well as versioning to protect your code as it evolves over time.  The actual submission of your code will be through the OWL submission system, as it was for your individual assignments.  Please be sure to include a README file outlining how to build and run your submission for testing.

**Doxygen Code Documentation**

You are expected to document your code with Doxygen style commenting and include at minimum:

* Both a @brief and detailed description of each class, and main @author(s)
* Both a @brief and detailed description of each function
* Document @parameters and @returns
* @author(s) for methods if appropriate

There should also be line-by-line and other comments as per the Project Specifications.  Once your code is documented, generate the default configuration file with:

doxygen -g dox.config

You can call the config file anything you like (if you do not like dox.config).  Then, edit this file, and modify it to include a project name and brief description, references to files as necessary, and the following settings:

PROJECT\_NAME = ##Give a name  
PROJECT\_BRIEF = ##Give a brief project description  
EXTRACT\_PRIVATE = YES  
EXTRACT\_STATIC = YES  
SHOW\_FILES = YES

You can now run Doxygen on your code using the command:

doxygen dox.config

You are to include the HTML documents generated by running Doxygen on your code in a docs directory along with your source code.  More information can be found on the [Doxygen website](http://www.doxygen.org/).

**Acceptance Testing Meeting**

In the week following your submission, your group will schedule an acceptance testing meeting with the instruction team (consisting of the instructor and/or the course TAs).  This meeting gives you the opportunity to provide an overview of your submission and showcase your work, and is useful in ensuring that we are familiar with the system when we do more extensive testing later.

During this meeting you will be asked about the software and its functionality.  Now is the time to point out special features and explain the choices you have made.  You will also be asked questions related to the design, and how you have implemented various features.  Questions will also include how you would extend the software to include other functionality.

All group members should be present at this meeting; further details on scheduling of these meetings will be posted on OWL at a later date.

**UML Class Diagram**

Update your UML class diagram from Stages 1 and 2 based on developments since those points.  In doing so, this diagram should represent the final structure of your source code.  As before, your diagram must have:

* Sensible classes
* Attributes, along with their types and visibility
* Methods, along with their parameters, parameter types, return types, and visibility
* Associations, hierarchies, and so on.

As in the previous stages, you are allowed to use whatever diagramming tool you wish to construct your diagram.  You may submit a source/editable version of the diagram if you like, but you must at least submit a portable PDF version of things so that the TAs can grade things independently of the tools use to create the diagrams in the first place.

**Project Tasks**

As noted in Stages 1 and 2, it is expected that you keep Jira up to date at all times.  As development proceeds, tasks should be Selected for Development, then flagged as In Progress as they are worked on, and ultimately marked as Done when completed and you have confirmed that the acceptance tests from your user stories are passed accordingly.

We will only count stories / tasks that are marked as Done towards your grade.  As before, for each such story / task, we will:

* Run all of your acceptance tests for each story / task to confirm that you have actually run your acceptance tests before marking a story as Done.
* Run some of our own acceptance test for each story.