

CEN 5011 Advanced Software Engineering

Fall 2015

Project Information

Objective: The primary objective of this project is to give you practice in applying the phases of the software development process to a "real" software project. Although the scope of the project is restricted due to the length of the semester, it will provide you with valuable experience in terms of analyzing a problem and developing a solution to that problem. This project **will** involve writing code!

Grading Scheme: The grade for this project shall be based on **three (3)** deliverables and **two (2)** class presentations, representing **25%** of the final grade. Note that some exam questions will be based on the knowledge acquired from participating in project team work.

The grades for the presentations will be assigned based on the average of the grades given by the teams not presenting and the course instructor. ***All team members are expected to participate in the grading process.***

The following is a brief description of the deliverables and presentation:

Deliverable	Artifact	Due Date
Deliverable 1	Software Requirements Document (SRD)	Oct. 5
Presentation 1	Formal in class presentation. Details will follow.	Oct. 5
Deliverable 2	Design Document (DD).	Nov. 4
Presentation 2	Informal presentations with Professor	Nov. 4 – Nov. 9
Final Deliverable	Software artifacts consisting of: <ul style="list-style-type: none">• Software Requirements Document• Formal Presentation 1 slides• Design Document• Implementation (all source code, documentation, and instructions to run the project in a readme.txt file)• Systems Documentation including – updated SRD and DD, implementation documentation and testing documentation• User's Guide• Formal Presentation 3 slides A CD or Flash drive with all project material	Nov. 30
Presentation 3	A brief description of the software system - requirements, design, implementation and test cases. The presentation should be no more than 20 mins.	Nov. 30

Grading: The team will grade each other based on the contribution to the project for each deliverable. The team grade will be **16%** of the deliverable grade, the presentation **33.6%** and the document **50.4%**.

Submission of Artifacts: All documents and presentations need to be ***submitted via email 30 mins*** before the class in which the deliverable is due. Each team should email the instructor a zipped file with the name “**Team-x-Deliverable-y.zip**” where “x” is the team number and “y” is the deliverable number. **This email should be copied to all the team members.** All artifacts for the course should be submitted on a CD or Flash drive at the beginning of the final presentation. See the table above for a list of the course artifacts.

Project Teams: Each team shall consist of **6 or 7** students. **I will assign the project teams.**

Selection of Project:

- Each team is responsible for selecting a project. Before starting work on the project you **must** come and see during my office hours so that we can decide on the scope of your project.
- Project selection shall be finalized by **Aug 31**. This means you have to come and see me **before the Aug 31st class!**
- If you have difficulty in selecting a project I will assist you.

Other Requirements:

- The software **must** run in the **Eclipse environment**.
- You **must** create all UML diagrams using **Papyrus**, a plugin for Eclipse
<https://eclipse.org/papyrus/>
- You **must** generate the initial code for your software from the class diagram create in Papyrus
- You **must** use an automated tool to generate the documentation for your code, e.g., JavaDocs
- You will be required to test the project using automated testing tools, more on this later.

Each document MUST be formatted as follows:

- Start each chapter on a new page.
- Use 1.5 spacing.
- Chapter headings 16 pt.
- Section headings 13 pt.
- Text 11pt Arial or Text 12 pt Times.
- Every figure and table must have a caption and should be referenced in the text
- Every figure should have text describing it
- There should be no two headings without text between the headings
- The narrative should be written in the present tense not future tense, i.e., there should be no text such as “In this chapter we will describe ...”, it should be “This chapter describes ...” or “In this chapter we describe ...”