



THE
FLORIDA STATE
UNIVERSITY

CEN4020
SOFTWARE ENGINEERING I
Mr. Jeremy Hatcher

Assignment 4

Team Project Fall 2014

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Introduction

Please read this document very carefully. It lays out the ABET requirements for the Software Engineering sequence. These are assignments that are kept for auditing purposes so that we maintain our accreditation. First I will lay out all of the requirements and then at the end I will parse out the deliverables. This document basically defines the requirements for the rest of the semester, culminating with a high grade SRS.

Description

One of the requirements of students in the Software Engineering sequence is that they work in groups towards the development of a moderately sized software product. The work is divided into two phases. The first phase is done in SE I (CEN4020) and involves defining the project, scope schedule, environment, and performing a detailed requirements analysis and a very preliminary design. The second phase is done in SE II (CEN4021) and involves

refining the requirements, performing a detailed design as well as implementation, and testing. This document describes the scope of the work to be done this term, the assessment that will be applied to the student's work, and the deliverables expected of each team.

Short Term Deliverables

Prospectus

The first task of each team is to define the members of the team and produce a prospectus with several items outlining the description of the software you intend to create as a group. Here are the details we ask you to provide. Please feel free to add more as needed but keep the document to no more than 2 pages. We just need enough to ensure that your project is appropriate for this course. Next semester we will only have 15 weeks to create this software so keep that in mind when choosing your topic.

- Names of all group members
- Name of your company or group
- Each members role / responsibility. Every team should have a Project Engineer.
- A short description of what the proposed project: Why is the software needed, what problem does it solve?
- Who will use the software? What is the scope of the project?
- Is there software out there like your proposal already? If so, how does your differ? How is yours better?
- Is it a mobile App, web app, database, etc...?

Each member from the group will submit the same proposal for approval through the prospectus link provided. Please submit as a PDF by the end of this week (25 October 2014, 11:59pm).

Long Term Deliverables

Semester Individual Deliverables

By the end of the term, each team member will have submitted each of the following items for grading within the context of your team project for the term. The items with an asterisk (*) are designated by the Department of Computer Science as the basis for assessment of degree program outcomes to satisfy the requirements of the State of Florida Academic Learning Compacts (SMALC) and the Accreditation Board for Engineering and Technology (ABET). Students are required to obtain a score of "effective" or higher on them in order to pass the course.

Choice of framework and tools

Each student will independently evaluate the available programming languages, software frameworks, and platforms, and make a written proposal justifying the selection. The document should include three options for each language, framework, and platform and a brief justification for the selection. Submit the document as PDF through the Homework portal. This research paper should be accompanied by a 5-10 minute video presentation. At the beginning of the video clearly introduce yourself and your topic. You may use any tool you wish to create this video. I will post a how-to guide about creating videos using PowerPoint.

Teamwork*

The student will be able to function effectively on a team to analyze the requirements for a software system, and design and create a prototype implementation. A common rubric will be used to assess the quality of the student's team participation, as perceived by both teammates and the instructor. At the end of the term you will be asked to fill out a peer review evaluation of your fellow team members. In that evaluation you will assess each member on several aspects of the project and rate them as ineffective, effective, and highly effective.

As part of team participation you are expected to attend regular scrum meetings and give your report to the instructor and your team at that time. Distance learning students who are geographically separated from each other may use the video/telephone conferencing and chat software to hold the meetings. These reports will be a large factor in the instructor's perception of your team participation. If you have a valid excuse for absence, you may submit your report electronically, by e-mail to the team before the meeting, copied to the instructor. At the end of the term you will submit your minutes of those scrum meetings and your peer reviews through the Homework portal.

Writing*

The student will be able to produce a written technical document, written to professional standards. Assessment will be based on evaluation of research papers according to an approved common rubric. This term it will be assessed on the basis of the written portion of the Software Requirements Specification or Software Design Specification. The document's production must be divided equally among the group members and must clearly indicate who is responsible for each section.

Oral Presentation*

The student will be able to formulate and deliver an effective oral presentation on a software design project. The presentation will be scored by a department approved evaluator (or panel of evaluators), according to an approved common rubric. The presentation will be done this term during the last two weeks of class, and will include a presentation of the individual's contribution to the final SRS. The instructor will score the presentation along with the mentor.

Software Design*

Each student will produce a complete Use Case Diagram for one user story. This will be turned in for individual assessment, as well as included in the team's SRS. Submission will be through a homework link.

Semester Team Deliverables

The following are to be done, delivered, and graded as the result of teamwork on the team website.

- Software Requirements Specification (SRS) Document, including all components.
- Final Presentation slides

I will be posting a SRS template soon.

Summary

Deliverables

* (I) Individual (G) Group

**These are due by 11:59 pm on the date provided

(G) Your prospectus is due 25 October 2014 (Each member should submit same document).

(I) Your research paper is due 15 November 2014.

(I) Your research presentation is due 15 November 2014.

(G) These outlined sections (draft quality) of your SRS are due 15 November 2014 (One submission per group by the Project Engineer).

- 1.1 Purpose
- 1.2 Scope
- 3.0 Functional Requirements (20 min)
- 4.0 Non-Functional Requirements (5 min). These should at least include some related to language and operating system.
- 5.0 System Architecture
 - This should come as a result of each individual's framework research and group agreement.

Granted, these sections of your SRS may change somewhat before the end of the semester. However, you do not want to wait until the last minute to begin plugging these in. Draft quality will be sufficient for this submission but the final product will be graded as a professional document. Although the other sections will be blank, please leave them in the document as they are in the template.

Format

Your prospectus should be in PDF format.

Your research paper should be in PDF format.

If you submit your video through the homework link it should be playable in either Windows Media Player or QuickTime player. You may optionally upload the video to YouTube and just submit a hyperlink through the homework link.

Your SRS submission should be in PDF format.

[ABET Requirements](#)

Category	Fulfilled by	Due date
Teamwork	Team Project	End of semester
Writing	Research Paper	15 November 2014
Oral Presentation	Research Presentation	15 November 2014
	Final Project Presentation	End of semester
Software Design	Final SRS	End of semester