

CS 362 Project Requirements

The purpose of this project is to provide you the opportunity to practice those skills we will be discussing in class. The focus of this project is not to test your code writing skill; however you will be required to write quality code. Instead, the focus is on the process and techniques Software Engineers can use to assist their project teams to create quality software.

There will be 6 project teams with about 6 team members each. The projects to be used will be a continuation of 6 projects selected from those created by teams in CS 361 of Fall 2007. This document outlines the expectations and deliverables that will be required for completion of the project.

This project will be comprised of 5 total iterations of 2 weeks each making a total of 10 weeks. These 5 iterations and their deliverables are outlined below:

Iteration 0

This iteration is focused on requirements refinement and verification, and creating an iteration plan. In this iteration it will also be necessary to produce the necessary design documentation for the first iteration. The deliverables due at the end of this iteration include the following:

Refined Requirements Document

- Introduction
 - Vision Statement
 - Stakeholders
- Requirements
 - UML Use Case Diagram – Full System
 - Use Case Requirements – Full System (numbered for traceability – see text for numbering system)
 - Description
 - Activity Diagram

Scope Identification for Three Two-Week Iterations

This can simply be a listing of the use cases defined in the Refined Requirements that will be completed as part of the development iterations. As the project progresses, you will be allowed to modify this scope as you learn more about the complexity of the implementation and the capacity of the team. The updates to this scope must be justified and included in your weekly reports defined later in this document.

Iteration/Project Plan for Identified Scope

- Work Breakdown Structure
- MS Project Plan

Development Environment Specification

Each team will be allowed to decide on their own development platform of choice as long as it supports the requirements given. It will be required that each team utilizes build management, source control, a unit testing, defect tracking, and integration/black-box testing. In this deliverable the platforms for each of these techniques will be listed and described, including a reason for why the particular tool was chosen.

Design Documentation

- System Architecture – Full System
- Iteration One Design
 - Sequence Diagram (Event Flow)
 - Class Diagram
 - Data Model

Class Presentation

You will be giving a 5-8 minute presentation in class describing the items covered in the deliverables described above. Just an overview is necessary to demonstrate and receive feedback on these items. It will also be valuable to know if other teams are using the same tools as you for collaboration purposes on learning how to use them.

Iteration 1-3

These iterations are focused on developing the application. It is expected that you will have a build completed and the following deliverables prepared by the end of the iteration. One exception to this is the weekly status report which will be due each Friday before midnight via email (delivered to mark.vanpatten@bus.oregonstate.edu and clementsm@bus.oregonstate.edu).

Weekly Status Reports

- Progress Made
- Plan for the Following Week

Design Documentation for Next Iteration

- Sequence Diagram (Event Flow)
- Class Diagram
- Data Model

Release/Build Report

- Bugs Fixed/Closed
- New Functionality Added
- Known Unresolved Bugs
- Build Quality

Updated Project Plan

This will be an updated version of the MS Project plan which will need to show progress made and should reflect any changes to scope or the iterations.

5 Minute Update in Class

Each team will be required to give a brief 5 minute presentation in class on the last Wednesday of each iteration. This presentation will include a description of the progress made and any lessons learned from the development effort.

Project Team Roles

Role assignments last for the duration of a development iteration and thus will be re-assigned every two weeks. Each student will be required to fulfill each role and its corresponding responsibilities.

- Project Manager (2 students) – Update project plan, assign tasks, create status reports, present project updates to class, assist all other roles as needed
- Business Analyst/Tester (2 students) – Create design documentation, test plans, testing, release management
- Developer (2 students) – Coding, unit testing, build management, source control

Iteration 4

This will include any final bug fixing and the preparation of a final presentation to be given in class on the project. This presentation will include a description of the development tools used and, more importantly, how they were used to enable the software development lifecycle and the creation of quality software. This presentation should also include a live demonstration of a functional portion of the software.