CSC 335 Team Project

Completed project due by Wednesday, May 5, 2021, by 11:59pm

Project Description

For the rest of the term, you will be working on a team project to accomplish one of the four tasks below. Teams will be made up of four students. We will be working using an Agile-style development process. Your project final grade will be based 60% on the actual software artifact you produce and 40% upon your participation in and success with the software development process we outline in class and below.

Implementation

By Thursday, April 15, 2021, at 2:00pm MST, you must have chosen both a team of 4 members and one of the projects below. Use the google sheet to sign up, linked from the assignment on D2L or the announcement.

When we see the distribution of project selections, you'll be assigned to an UGTA who will act as the stakeholder for your product. They are who you will ask questions of and meet with to check in on your progress.

Standups

These 15-minute check-ins are to be scheduled on your own time. We will provide a sign-up sheet to coordinate your group meeting with the assigned stakeholder.

The check-ins will be held as weekly "stand-up" meetings in the Scrum style. The will minimally cover:

- What went well in the past sprint
- What could be improved
- Any potential blocking items
- Any questions

Since the entire grading team will not be following your progress at each of these meetings, it is up to you to take detailed notes describing how your weekly progress went. Minimally, notes should be taken at each Sprint Planning, Sprint Review, and Sprint Retrospective meeting. They will serve as a brief outline of the meeting's content, and should be used both to document the team's progress, as well as keep the team cognizant of any discussion points that have been brought up

Grade Breakdown

Project	Minimum Viable Product (MVP)	50%
	"Wow" factor	10%
Process	Weekly Standups	20%
	Team Process documentation (sprint planning, sprint review, sprint retrospective, trello, commit history, etc.)	10%
Assessment	Self/Team Assessment, Presentation	10%

A further breakdown of the requirements is specific to your project choice and is documented below.

Project Choices

There are longer descriptions of each project as attachments to the assignment on D2L. Here is the short description:

Turn-based Strategy Role-Playing Game

A tile-based video game with a combat feature. Could be something like the Civilization series (https://en.wikipedia.org/wiki/Civilization_(video_game)) or maybe like the boardgame Risk (https://en.wikipedia.org/wiki/Risk_(game)).

Minesweeper

The classic Windows game where you use logic to help find the hidden positions of mines in a board.

https://en.wikipedia.org/wiki/Minesweeper_(video_game)

To-Do Application

A program to help a user or multiple users track task completion.

Queue for Online Office Hours

A client/server architecture for dealing with a line of people waiting for a service.

Requirements

- Your team selection in the google sheet by Thursday, April 15, 2021, at 2:00pm MST, listing the project selection and team members, from which we will create the group and repository for you.
- Three (3) Stand up meetings with your assigned TA to be scheduled with your group and the TA
- A 5-minute final presentation slide deck that demonstrates your end product, emphasizing what design choices you made and shows off your wow factor
- A completed project in your git repo's master branch by Wednesday, May 5, 2021, by 11:59pm

Technical Requirements

- Complete Javadoc for every class and method
- JUnit test cases that achieve >90% statement coverage for all non-GUI, non-networked code
- A Trello board that you use for creating tickets, showing what is in progress and completed
    - Add jmisurda@cs.arizona.edu and your TA to the team to be able to read the board
- Your GitHub git repository that:
    - Has commits from each team member over the four sprints
    - Has feature branches as you develop
    - Contains a master branch with your final submission
    - A documentation folder with your generated Javadoc
    - A tests folder (package) with your JUnit tests

Schedule

Sprint 1 (by end of day 4/21)
Tasks: • Decide on how team will work and meeting schedule • Meet with Stakeholder (TA) to clarify requirements • Team will translate stakeholder requirements into the first checkpoint/feature, and create and estimate tickets in Trello • Plan out Sprint 1 work • Start on checkpoints 1 and 2
Sprint 2 (by end of day 4/28)
Tasks: • Review progress from Review and Retrospective with Stakeholder • Conduct a Sprint Planning session, and create and estimate tickets in Trello • Complete MVP feature/checkpoints 1 and 2 • Conduct a Sprint Review and Sprint Retrospective
Sprint 3 (by end of day 5/5)
Tasks: • Review progress from Review and Retrospective with Stakeholder • Conduct a Sprint Planning session, and create and estimate tickets in Trello • Complete MVP feature/checkpoint 3 • Conduct a Sprint Review and Sprint Retrospective • Demo project for TA and/or class

Submission

As always, the last pushed **commit to the master branch** prior to the due date will be graded.

Project Management

Working with multiple people on the same project simultaneously can lead to some tricky synchronization situations. One workflow that utilizes Git to effectively manage the development of a large project is Gitflow. An effective way to utilize it in this project is to merge all of your features into the dev branch, and the dev branch into the master branch at the end of each week, so that your "release" meets all of the requirements when you have your scrum meeting. This is a good opportunity to learn Git more in depth than we have taught in this course (although it is recommend that you do *not* use the Gitflow plugin, and instead use the pure Git commands if you decided to use Gitflow). Make sure you discuss using Gitflow with your team if you want to implement it.