THE UNIVERSITY OF WESTERN ONTARIO

DEPARTMENT OF COMPUTER SCIENCE
LONDON, ONTARIO, CANADA

Computer Science 2212b
Introduction to Software Engineering - Winter 2014

Team Assignment 1
Due February 14 at 11:59 PM

1 Overview

In this assignment, your team will do the first stages of the high level design of your software for the team project. Your project report must be of high quality and typed. The entire assignment report must be submitted as one PDF file.

Your report should consist of the following, which will be discussed in detail below:

- A title page
- Section 1: Personnel Snapshot
- Section 2: User Stories
- Section 3: UML Class Diagram
- Section 4: Project Plan

2 Title Page

The title page should contain:

- The course number
- The assignment number
- The due date of the assignment
- The number of your team
- The names of all your team members in **alphabetical order**

The following is a sample title page:

Computer Science 2212b
Team Assignment 1
Team 999

February 14 at 11:59 PM

Team Members:
Justine Bateman
Courtney Cox
Geena Davis
Michael J. Fox
Tom Hanks

3 Personnel Snapshot

Your personnel snapshot should include a list of all the team members and a brief summary of the skills or background knowledge that each member contributes to the project. Limit your description to a maximum of about five sentences per person.

4 User Stories

Your team should sign up for a free, public tracker on http://www.pivotaltracker.com. Your team must then create all user stories that you think will be needed for the project and enter these on PivotalTracker.

Each user story entered on PivotalTracker should include:

- The story itself
- A time estimate for the story (in story points)
- Any acceptance criteria in the **Description** field
- The epic to which the story belongs in the **Labels** field
- The team members to whom the story will be assigned in the **Owner** field

For instance, a story might look as follows:

Your team must then set its estimated velocity on PivotalTracker, and prioritize its user stories into iterations.

Finally, take a screenshot of your tracker so that we can see:

- Current
- Backlog
- Icebox
- Epics

Include this screenshot in this section, along with a textual link to your tracker.

5 UML Class Diagram

Draw a UML class diagram resulting from your analysis of the project requirement specifications. Use only the features of UML discussed in class.

Your diagram must have sensible classes, attributes, methods, associations, hierarchies, etc., that capture the requirements in as complete a manner as possible. At this stage, however, we do not expect details such as attribute types, method return types, or the visibility of methods (public or private).

Additionally, you should model only the domain – you do not need to model the interface (i.e. you do not need to include any classes for the user interface for this assignment).

Note: You **must** use Microsoft Visio 2013 to draw the UML Class Diagrams. Visio is available free to Computer Science students at http://www.csd.uwo.ca/msdnaa. If you do not have a Windows system, you can download VMware for free at http://www.csd.uwo.ca/vmap, and then download Windows for free from the same site from which you downloaded Visio.

6 Project Plan

In this section, you will develop a Gantt chart using Microsoft Project.

We have the following milestones for CS 2212:

- **Milestone 1**: Team Assignment 1
- **Milestone 2**: Team Assignment 2
- **Milestone 3**: Team Assignment 3
- **Milestone 4**: Team Assignment 4
- **Milestone 5**: Final code submission

There are several tasks that must be completed before achieving each milestone. For example, in order to reach milestone 1, your team must do at least the following tasks:

- Complete the UML Class Diagram
- Complete the user stories on PivotalTracker
- Complete the Personnel Profiles section
- Learn Microsoft Project
- Complete the Project Plan

In order to reach Milestone 5, your team might have to complete tasks such as:

- Code the User Interface
- Code the Student class
- Write unit tests for the Student class

You must draw a Gantt chart to indicate the required tasks, who was assigned the tasks (could be more than one person), how long each task will likely take, which tasks must be completed before another task can start, etc.

You must use Microsoft Project 2013 in order to draw the Gantt chart. Project is available free to Western Students from http://www.csd.uwo.ca/msdnaa. Note: to indicate a milestone in Project, set the duration to 0. You might want to change the duration units to hours rather than days, but this is up to you. To do this, simply type the duration you desire (e.g. `2 hours` instead of `2 days`).

On your Gantt chart, you must indicate:

- The 5 milestones listed above and by when each milestone must be completed
- The tasks your team decided were required to reach Milestone 1, who performed each task (this is called a resource in Project), how long each task took, and when you worked on them (the start and finish times). Include a column for % complete. Indicate 100% complete for each task prior to Milestone 1, since you handed in your assignment, so, for Milestone 1, you must have completely finished all these tasks.
- The tasks your team has decided are required to reach Milestone 2. Indicate who will perform each task and how long you estimate each task will take. You are making your best guess here – don't worry if you end up being a bit off. You will get better at estimating time durations by the end of the course. If you have already started any of these tasks, indicate what percentage of the task you have completed.
- If you want, you can start listing the other tasks that your team has decided will be required in order to reach the other milestones. Don't worry if this list of tasks is not yet complete at this point – it is just to get your team thinking about planning.

Your Gantt chart should be included in your PDF file. It must be clear (i.e. not blurry) and readable. Don't worry if it doesn't fit on one page – you can span it across multiple pages.

7 Tips

- Create a directory `assignments` in your team repository to store all your assignment files. Do **not** put everything in the root of the repository. Keep things tidy!
- Remember the **INVEST** acronym when creating your user stories.
- Evaluate your UML class diagram according to the evaluation guidelines in the course notes. The overall form of the diagram must be correct and it must avoid common errors. It must have sensible classes, attributes, operations, hierarchies, multiplicities, and associations that capture the requirements in as complete a manner as possible.

8 Marking

The marks will be tentatively assigned as follows:

- Title page and general formatting of hand-in: 2 marks
- Personnel Snapshot: 2 marks
- User Stories: 10 marks
- UML class diagram: 10 marks
- Project plan: 4 marks
- Spelling and grammar: 2 marks

9 Assignment Submission

- In the **root** of your team repository, create a directory `deliverables/asn1`
- In the `deliverables/asn1` directory, place **one** file named `teamN-asn1.pdf`, where `N` is your team number
- Commit your PDF to GitHub and tag the commit with the tag `asn1`
  - Do not forget to push the tag to GitHub – your assignment is not submitted unless the tag is pushed
  - You can verify that the assignment was submitted by clicking the **Releases** link on your team repository page on GitHub. You should see an `asn1` release if you submitted successfully
- Do not submit any other files in the `deliverables/asn1` directory
- Remember that part of your mark is based on the clarity and organization of your report, so make sure it is neat and well organized
- Additionally, remember that poor spelling/grammar will lose you marks, so ensure that one or two people go over the entire assignment once it is finished, prior to submission, to proofread it and correct any errors found

10 Peer Evaluation (to be done individually)

Within four days immediately after this assignment's due date, complete a peer evaluation for each individual (including yourself) on your team. The private course site will soon have a link to complete the peer evaluations.

For each peer evaluation that you fail to submit within four days of the due date, you will individually lose 0.5% off of your final course mark (up to a total of 2.5% for the 5 peer evaluations you must submit).

Note: Peer evaluations can adversely affect the final mark given to an individual, so please complete these peer evaluations constructively and fairly.