

## Homework Assignment #5

**Due Date:** Wednesday, August 10, before 10:00pm

### Tasks:

This is an individual assignment – all questions should be answered by you, according to your thinking.

- 1.) If needed, familiarize yourself with the purpose of doing reflective essays (attached).
- 2.) Answer the following 4 questions.

**Q1.** *Consider the three guest lectures in this course. Pick a theme from one of them that resonated with you and briefly describe your related experiences. Do they confirm or dispute the ideas brought forward by our guest(s)?*

**Q2.** *Give an example / snippet of your own code from the current project that needed (or still needs) refactoring. What is the motivation for refactoring there? Now show how you have refactored the code. In what ways did your refactoring improve the code?*

**Q3.** *Show your team’s latest version of the application you’re building to two outside people and let them “play,” while you observe and take notes. Discuss their main comments and what usability issues they uncovered. Did you learn additional information from the second participant? Your description should be no more than a page.*

*For some suggestions on usability studies, refer to “Guidelines for User Testing with Thinking Aloud” from the ‘Useful Resources’ section of the course web. Note that these are guidelines for a more complete usability study. For this assignment, we don’t ask you to have a pilot study or a background questionnaire. We recommend that you encourage your users to keep talking while “playing.” To do that effectively, it is best to use unobtrusive comments that don’t point them in a particular direction.*

*Note: You do not need to recruit two observers for every team member – it is okay to meet as a group with, say, 5 users and then each team member can choose to discuss his/her observations on the reactions of two of these individuals.*

**Q4.** *Consider the value proposition exercise we did in class early this quarter. It adhered to the following template:*

*For (target customer)  
 who (statement of need or opportunity)  
 the (product or company name)  
 is a (product or company category)  
 that (statement of key benefit / compelling reason to buy).  
 Unlike (primary “competitive” alternative),  
 our product (statement of primary differentiation).*

*This format is targeted at describing the value that companies / teams provide to their customers through the products they offer.*

**Q4.1.** *Modify this template – but preserve its overall structure and spirit – to make it suitable for describing the value that individuals provide to their teams. What changes were necessary and why?*

**Q4.2.** Fill out your new template to describe the value that you personally provide to your team on the current project. (Ideally, this should be something that others on your team recognize as your value to them – otherwise it would indicate a communication problem in the team.)

**Format:**

- Use at most 3 pages of text total for all of your answers, excluding the source code for Q2. Non-textual artifacts (e.g., images), if any, are limited to 1 additional page embedded inside the same document. Put your source code/snippet in the document too.
- Format your document to be single-spaced, using font size 11 or larger.
- Save your work preferably in rich text format (RTF or DOC). We cannot edit (and add comments to) PDF without copying the contents over.

**Things to remember:**

- Name the file that contains your answers using the following convention:
  - *LastName-cse403-hw5.rtf*, where *LastName* is replaced with your last name.
- Put your name in the header field of your document, not only in the filename.

**Submission:** via UW Catalyst's eSubmit tool:

<https://catalyst.washington.edu/webtools/secure/submit/turnin.cgi?owner=alanliu&id=3266>

**Follow-up:** As part of our feedback, we will pose a follow-up question or two, based on what you wrote. You will be expected to answer that in writing too, though we anticipate that the follow-up answers will take you less time to produce than the original writing did.

## Reflective Essays

The goal of reflective essays is to:

- (a) get you to think more deeply about certain aspects of the course;
- (b) practice the skill of reflecting.

Reflecting upon your experience deepens your understanding of the domain, shows it in a different light, and helps you to generate new ideas and possibilities in that and other domains. Practicing reflection is important, since this skill is critical for becoming an expert in *any* domain – only by reflecting upon what happened can you learn from successes and mistakes.

Here are some general techniques that will help you get the most from your reflections:

- Write in the first person about what happened to *you*, not to some abstract person.
- Write about things that are meaningful to *you* or happened to *you*. You will have more energy to dig into those topics.

Consider the following aspects as you reflect upon your experience:

- What stood out for you?
- What insights did it give you?
- What is *one* thing you will do differently as a result of what you learned?
- Use facts to ground your assertions.
- Do not confuse opinions with facts.

We are looking for stories about issues meaningful to you, communicated in a way that makes them meaningful to the reader (i.e., us).

Good essays have solid content, clear style, are grounded in factual assertions, and communicate well. Incidentally, good code has the same characteristics, so excellent software developers tend to also be excellent writers. In the end, writing code and writing a good essay are both about communicating effectively with your audience – an indispensable skill regardless of your domain of expertise.

In our experience, good essays often include one or more of the following aspects:

- Demonstrate how lessons from this course enabled you to do something that you were not able to do before. This may include noticing things about the world around you that you had not noticed before.
- Illustrate how this course is (or is not) changing your beliefs and ideas of what is, or is not, possible for you.
- Discuss how you have used lessons from this course in other parts of your life, or vice versa.
- Analyze situations using tools learned in this course, and discuss how well those tools worked for you.
- Discuss a situation from multiple perspectives.