

NAU–CS Team Project Self-Reflection Worksheet

Overview: At the end of a project, it's useful to go back and reflect on how the project went, how the team functioned, how effectively you used tools, and so on. This worksheet is designed to guide you in this process, and capture the outcomes.

How to fill this out: Hold a final team meeting, after you've turned in the last deliverable and the heat is off. Order a pizza, crack open a beverage. Then sit down as a team and go through the following worksheet, discussing and filling in each section. Type up and the result, and email the document to your team mentor.

Grading Metrics: You will not be graded on the *content* of this document per se. That is, if for instance, your self-assessment concludes that you "didn't use version control tools effectively", then this shortcoming won't affect your grade; the point is that it should be an honest assessment. What you *will* be graded on is *how well* you fill in this document: thoughtful self-analysis gets a perfect score; cursory/lame/vague self-analysis will score low. We instructors use this document to help us think about how to encourage more learning and better teaming on projects, so please help us out!

Team Name: TLD Worker Bee

Team members: Austen Christensen, Morgan Lovato, Wei Song

Course number and name: CS 486 Senior Capstone Design

Semester: Spring 2019

Date this reflection completed: May 2, 2019

Software DESIGN PROCESS

How did your team structure the software development process? Did you choose a particular formal model (SCRUM, Agile, etc.). If so, which one and why? If not, did you explicitly agree on an informal process...or was it just pretty random. Explain briefly.

We agreed to not use a formal design process because we felt like we could be successful without one as it would add unnecessary complications to the design process.

How did it go? Now briefly discuss how satisfied you were with this process. Did it work well for this project? Why or why not?

Overall it went very well. We were able to communicate to overcome any issues that arose.

What changes might you make in your development process if you have it to do again? More structure? Less? Different process model?

We feel we would not make any changes. If we had a larger team, we would have probably benefited from using a software development structure.

Software DEVELOPMENT TOOLS

What software tools or aids, if any, did your team members use to support or organize software development? For each of the following categories, list the tool(s) used, and briefly describe how the tool was actually used. If you didn't use a formal tool, explain how you handled the matter with informal means.

- Source creation tools: IDEs, text editors, plugins, anything used to edit/create source.

Text editors: Sublime Text 3, vim

Framework: Django

Environment: Amazon S3 & Elastic Beanstalk

- Version control: How did you manage your codebase?

Local: Git; Online: Github

- Bug tracking: How did you keep track of bugs, who was working on them, and their status

Debug: Python Debugger

- UML modelers and other miscellaneous tools:

UML: Draw.io

How did it go? Comment on any problems or issues related to organizing the coding process. How might you have managed this better? Were some tools you used superfluous or overkill? What tools or mechanisms would you try next time to deal with those issues better?

The coding processing went smoothly. Amazon provided good instruction on how to set up the environment (Django) on their services. However, the framework we used (Django) might be overqualified and maybe we should use some light framework like flask, which will save some time to set up the environment.

TEAMING and PROJECT MANAGEMENT

Without getting caught up in detailed problems or individual blame, take a moment to think about how your team dynamics worked overall. Here are a few questions to guide you:

How did you organize your team? Did you have some clear distribution of team roles (leader, technical lead, documentation lead, etc.) up front? Or was it more just “everyone does everything as needed”?

Our team did assign specific roles to specific people at the start of Capstone: our team lead was Austen, our website manager was Wei, and our documentation lead and editor was Morgan. The rest of tasks were done as a team or divided upon a need be basis.

How did you communicate within the team? Comment on each of the following communication mechanisms:

- Regular team meetings? If so, how often?

We had weekly meetings that would last about an hour each. On the occasional heavy load weeks, we would meet twice.

- Impromptu team meetings? If so, roughly what percent of total team meetings were of this sort?

The only impromptu meetings that we had was with our client. Less than 15% was impromptu meetings.

- Emails to all members? If so, explain briefly: about how often, what used for?

Anytime we sent an email, all of the members were CC'd.

- Software tools? Were any of the software tools you mentioned above (e.g. bug/issue tracking) using to communicate and organize tasks, e.g., in lieu of emails or other discussion?

When we were on Google Docs or slides, the chat system connected us to communicate any issues.

- Other communication channels used? Facebook, wiki, text messages, phone conferences, etc.

We communicated as a team through Whatsapp Instant Messenger. All communication with our sponsor and mentor were done through Emails with everyone CC'd on the

Email. Our mentor meeting were held in person and our sponsor meeting were held via Skype.

How did it go? Did you feel that intra-team communication overall went well? Were there breakdowns, e.g., where someone didn't know something was due, didn't realize a task had been assigned to him/her, did not know about a deadline, etc.? Without getting into details, simply comment on whether such breakdowns occurred, what the overall cause was, and how serious (if at all) the consequences were.

It went well overall. There were no breakdowns amongst our team and everyone did everything that was expected of them. The only slight miscommunication occurred regarding team meeting times, but those were easily resolved.

What could you do better? More structured leadership? A more formal task assignment/tracking system? Using better/other communication mechanisms? Generally just think about what you all would do next time to improve communication and avoid breakdowns mentioned.

We could have been more formally structured the first semester to help us prepare for the upcoming semester. We did get everything settled in by the second semester, though.

Nice work! Congratulations on finishing your project! Please enter all of your answers in this electronic document and send it off to your instructor or team mentor.

Some closing thoughts...

Spend a little more time on your own percolating on the answers you gave in this self-reflection exercise. Being effective as a project team is **not easy** (!!), and is a skill that we all have to work on continuously. There is rarely any single or simple reason why a project was a bumpy ride; usually it's a combination of factors...of which is YOU. Regardless of project or team, there are things that could have been done differently to make it flow better. Recognizing those things through thoughtful reflection post-facto is the key to improvement!