Senior Project Interim Self-Assessment

This document is intended as a guide for the senior project team to assess its performance in a number of dimensions. You need not answer each question in detail, rather, use the questions as a guide for the kinds of items to assess. Add items you feel are appropriate.

This self-assessment will be one of multiple elements that your faculty coach uses to arrive at an assessment of the team's performance for this first term. The other elements that the faculty coach will use include: direct observation of the team, team peer evaluations, reviews by other faculty during the interim project presentation, sponsor evaluation. These self-assessments will also be used as part of the SE program's accreditation effort.

To complete this self-assessment the team should carefully consider each of the questions and provide an honest evaluation of the team's performance. Your faculty coach will inform you when this self-assessment is due and how to deliver it.

Team: Team Kwondo

Project: Tioga Tae Kwon Do Student Management System

Sponsor: Paul Mittan

Product

1. **Did the team prepare all the documentation artifacts requested by your faculty coach and sponsor? Were these documents carefully inspected prior to delivery? How would you assess the quality of the document artifacts?**

   Yes the team did prepare all of the documentation requested, and in a timely manner. Each document was carefully inspected one meeting before it was shared with the sponsor or the faculty coach. To assess the quality of the documents we reached a group consensus that all of the criteria were met for the document.

2. **How well did the team elicit the requirements? Are the requirements fully specified at this point? What approaches were used to elicit the requirements? Were key requirements missed? What methodology was used to document and validate the project requirements?**

   Overall, the team did an acceptable job of eliciting the requirements. The requirements are not yet fully specified due to the fact that our project has had requirements defects in the past, so it is not yet certain. No key requirements were missed. All of our

requirements documentation were in a google drive document. We have also used Github Issues to assist. Validation has been manual.

3. **Did the team explore the entire design space before arriving at a final design? Have there been many errors found in the design? Was it necessary to make major changes to any part of the design? What were the reasons for the change? Do you have a complete design at this point?**

   While it is difficult to explore the entire design space, we believe we explored most of the relevant design considerations. We believe we have a stable architecture at this point, as we have not had to make major design changes yet. Our design will continue to change throughout iterations, but our overall architecture is expected to remain the same.

4. **How has the development and implementation progressed? What percentage of the product do you estimate is complete at this point? Is the team providing the documentation within the implementation artifacts?**

   The development has progressed well and mostly as expected as we have completed approximately 80% of the core functionality. However we haven't really gotten to any of the nice to have functionality which was expected and planned for.

5. **What is the team's testing strategy? Has the team developed a test plan? Is the team performing unit testing? Is the team using any test frameworks, such as JUnit? What are the testing results to date? Were any major defects found during system test?**

   Our team currently does not have a formal testing strategy aside from manual acceptance testing. However, the team acknowledges that this is a major area for improvement and has plans to improve our testing during the next semester. Planned strategies include the implementation of unit tests on at least our backend as well as several rounds of user testing. We also want to do Karma testing, which would test the controllers on our front end.

6. **What industry and engineering standards must your project adhere to? Were these new standards that the team had to learn? Did your sponsor provide you support for understanding these standards? Did you have to educate your sponsor about these standards?**

   Our team has set certain standards for development that we adhere to as closely as possible. All code being written must be reviewed by at least one other team member. We utilize linters to adhere to code standards, and follow a good branching pattern that ensures all code is tested before it is merged into the master and development branches.

Process

1. **What is your process methodology? Has this been clearly outlined to your sponsor and received the sponsor's approval? How is the process documented?**

   Our process methodology is Evolutionary Delivery. This process decision was clearly outlined to our sponsor during the first week of the Fall Semester and was subsequently approved. This process is documented in our project plan document as well as adhered to by the team. We began working on our project concept the first week. Then we did 2 weeks of requirements analysis upfront, followed by 2 weeks of design. We are now cycling through iterations. Doing further requirements and design work when necessary.

2. **Was there a large requirement to learn the problem domain? What approach was used to gain domain expertise? Did your sponsor provide adequate support? What forms of support did you receive?**

   No, there was some domain learning as to specifics of how the sponsor planned to use the software and specific tae kwon do. In order to learn the domain information that was needed we asked our sponsor questions about things we were unsure about including belt and stripe process and Paul worked with us to make sure all our questions were answered.

3. **What mechanisms is the team using to track project progress? How well has the team tracked its project progress? How often do these artifacts get updated on the department project website?**

   Currently we're using GitHub Issues as well as a formal requirements document to track what requirements are completed and what requirements remain.

4. **Is the team conducting effective meetings? What can be changed to make the team meetings more productive?**

   For the most part the team conducts effective meetings. We do tend to get side tracked, which usually results in longer meetings. If we can eliminate these distractions then we will have more efficient meetings.

5. **Has the team met all project milestones to date? Which milestones, if any, were missed or were met ahead of schedule? What contributed to this schedule changes? What will the team do differently to ensure that future milestones are met?**

   While we estimate that we are nearly done with the core system requirements, we failed to deliver all of the features for the last iteration before the semester ends. We will work on these features over the break and keep this in mind when estimating times around our final presentation.

6. **Was the team required to adopt new technologies? What were these technologies? What approach did the team use for selecting the appropriate technology for the project? Did the sponsor provide any support for learning these technologies? How well did the team ramp up on the new technologies and begin to apply them effectively?**

   None of the team members had experience with every piece of technology used. While most of the team had used at least one of the technologies before. The full tech stack is Django, Django Rest Framework, AngularJS, Gulp, SCSS. The team chose technologies we had some familiarity with, but that would also correctly fit the context of the problem. We knew we needed a flexible API framework, so Django was a clear choice to us. It lends itself well to a REST framework. We also knew we needed a frontend framework that was flexible and allowed us to build a modern and responsive UI. For that, AngularJS was a good choice, because of the large toolset it provides.

7. **What is the set of metrics that the team is tracking? Has the team gathered these metrics on a consistent basis? What has the team learned from the review of these metrics?**
   The team is tracking hours (predicted v. actual) as individuals and as a team. We are also tracking the number of code bugs discovered in each release in addition to requirements defects that were discovered in each release. We made sure to gather these consistently each week and each iteration. We have learned that our we are doing a good and consistent job based on our metrics, very few bugs and defects and our time estimates on time commitment is pretty accurate with little variations due to events that occurred during the year.

Communication and Interaction

1. **How well has the team been communicating project progress to the sponsor? What regular communication does the team have with the sponsor? Has the team been maintaining this communication to the satisfaction of the sponsor? Were any adjustments needed in the communication over time? Were these changes initiated by the team or the sponsor?**

   The team meets with the sponsor every Thursday. Every other meeting, we will demo to the sponsor the most up-to-date build of the project. We believe we have met our sponsors expectations with communication.

2. **Did the team need to provide technical input to the sponsor? How well did the team educate the customer in these areas? What mechanism did the team use?**

   The team was asked to pick out tablets that would work good with the application in development. We took into consideration tablet resolution, accessories, price, RAM, and CPU. We made a recommendation to the sponsor for a tablet to order, which he approved of.

3. **Is this an effective team? What has been contributing to and detracting from the team's effectiveness? What are the team's weak points? What are the team's strong points? What changes can the team make for next term that will make it more effective?**

   We definitely think that this has been an effective team.. Slack and Google drive have been helpful tools for keeping communication clear and open. Two meetings a week also helps to keep the team up to date on what each member is working on. We are still having trouble with git issues occasionally, and deploying can be difficult due to lack of communication about code branches.

   Next semester we should be more clear about our branch structure, and be sure to not cause headaches for ourselves with the way we are merging and deploying new code.

4. **What mechanism does the team use to communicate with the faculty coach? Has communication with the coach been effective? Are there any trouble spots with the faculty coach communications? What can the team change for next term to make their communication to the faculty coach more effective? What can the faculty coach change to make his or her interaction with the team more effective?**

   Our team uses email and our bi-weekly team meetings to communicate with the faculty coach. We personally believe that these communications have been effective this semester.

5. **Does the team have a complete website with all project artifacts stored and up-to-date on the software engineering department webserver, i.e. linus.se.rit.edu? How often are entries on the webserver updated?**

   The team has been updating the project website at the end of every iteration. We have tried to make all of the artifacts live links to save our team the time required to update them all the time. At the end of the Spring Semester we will change these live links to permanent documents.

6. **How well has the team made presentations to the sponsor and faculty coach? Was the interim project presentation done in a professional manner? What can be done to improve the team's presentations?**

Our team presentations to Paul and Scott have been informal. However, we feel that they are working well, and don't have a desire to change how they are being done. The interim presentation was worked on by all group members, and the team is happy with the final product.

We can improve by spending more time practicing, and working on our individual public speaking skills.

7. **How well has the team worked with other senior project teams, coordinating access to lab space and equipment, sharing experiences and ideas, etc.?**

   Our team has rarely interacted with other Senior Project teams during our work on the TTKD Student Management System project. As a result of this, we cannot adequately describe our work with other Senior Project teams.

Achieving Customer Satisfaction

1. **In the team's opinion has the work accomplished to date satisfied the project sponsor? Were there any weak spots in this regard?**
   Yes, we have satisfied our sponsor with the work we have completed so far on the project. At times he was unhappy with our risks and communication of the status of bugs in the system.