

# 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: 4 Your Health**

**Project: Day Health Planner**

**Sponsor: Trillium**

**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?**

The team has completed all of the documentation artifacts that the sponsor asked for and are planning on sending those to both the faculty coach and the project sponsor at the conclusion of

this assessment meeting. These documents were reviewed by several members of the group and are of high quality.

**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?**

The team elicited requirements at the start of the project through extensive meetings with the customers and the group has now produced a very detailed SRS that the customer has signed off on. We also has a robust use case document to accompany the SRS. At this point in time it does not seem as though we are missing any key requirements, or that we had missed any during the duration of this semester.

**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?**

We have had several meetings regarding all aspects of the project's design, from database design meetings to UI design meetings. The UI has had several iterations that have been seen by the customer all of which have been modified due to customer feedback and usability tactics. Our backend design is nearly complete needing only a little bit of work, while our front-end needs to be brushed up a bit.

**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?**

We got a late start on implementation, but have completed requirements gathering and the majority of design work. At this point in time the backend of our system is close to completion and a prototype front end is in the works. From here on out our full focus will be on implementation. We estimate that about 45% of the product is complete.

**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?**

We have a test plan that we have started to develop now that some of the code is getting closer to the testable stage. In addition to traditional unit testing and acceptance testing it is our plan to do a lot of usability and integration testing. The plan is to test the usability because that is a key Quality Attribute for us. Integration test will be done heavily because we have a lot of different parts to the system that all need to come together.

**6. Products need to be designed within guidelines and constraints appropriate for each project. It is also important to consider the impacts of the products that are**

**designed. In the following categories discuss the constraints and impacts that have a bearing on your project. Note that there may be one or two categories that have no bearing on your project but your project is probably affected by almost all of these.**

### **Economic issues**

The goal is to keep this system as a primary tool for Trillium to use for years to come. If implemented correctly it could save them quite a bit of money down the road. If not it could also cost them money to get it repaired, rebuilt, etc.

### **Environmental issues**

Our system is replacing a paper system which uses a lot of paper which is not great for the environment.

### **Social issues**

Our system will be used by Trillium to help coordinate their classes, which are social events. It will also be used by many clinicians and there may be talk among them about information posted in the system.

### **Political issues**

The system needs to be able to keep track of auditing information.

### **Ethical issues**

There is sensitive patient data on the servers. If someone were able to access the system that shouldn't be able to that would be a major violation of patient's rights and is therefore something we need to avoid.

### **Health and safety**

N/A

### **Manufacturability**

N/A

### **Sustainability**

Once the system is done Trillium intends to use this system until it is dated. The system must be as forward thinking as possibly so that they can wait to replace it for many years.

**7. 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?**

We need to conform to HIPPA compliance, coming into the project most of us had no idea what HIPPA was. Thanks to the great documentation HIPPA provides we didn't need to look everywhere for information. It was also great that the other Trillium team had done this before and were able to point out some things that are possible concern to us.

## **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 consisted of a waterfall organized requirements and design phase, followed by a scrum based incremental development phase. We progressed through requirements and design in a traditional sequential fashion in order to better understand the problem and domain. Our sponsor was presented with a document outlining our methodology plan as well as a project timeline. The process is documented in our backlog, SRS document, methodology overview, and timeline.

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

Much of our requirements phase was focused on gaining knowledge in the problem domain. To do so, we visited the sponsor's location for interviews and a tour and exposed ourselves to many of the documents and processes used by the sponsor. In this effort, the sponsor was extremely helpful and cooperative. They were happy to answer any questions we had, and as forthcoming with their resources as the could be. Access to their document templates was especially helpful.

**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?**

Our progress is primarily tracked by the project backlog, and by the completion of the use cases outlined in the SRS document. Project progress has been tracked with moderate success, despite there being some problems with tasks being pushed into later sprints or completed before they were scheduled. Early on, tracking hours was not done very well, but this has improved greatly. These artifacts are being updated each sprint (every 2 weeks).

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

Meetings have been adequately effective, team members usually do a good job communicating any problems they have. To improve meeting productivity, we should do a better job demonstrating what each team member has been working on.

**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?**

Only a few milestones have been missed so far. The biggest being the integration of the fingerprint scanner, which has been delayed significantly due to the difficulty in obtaining the associated hardware and software. And even though the database and server were completed on time, communication between them was delayed slightly, probably due to the team working with technologies new to us. To ensure the on-time completion of future milestones, work will be more carefully divided and assigned, so that tasks are smaller and more easily focused on.

**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?**

Several technologies used in the project were new to our team, namely Spring, and for some members, Angular JS. Technologies were selected based on decisions made by other teams working with the sponsor, in the case of spring; and by team expertise, in the case of Angular. Our sponsor has not been able to provide much technical assistance, as the themselves are not a tech-oriented company. Technology tutorials provided mostly by Zach were very helpful in educating the team on the new technologies. Application of these technologies has met with mixed success, but by this point most of the growing pains are over.

**7. How well has the team maintained quality control over the project artifacts? Have all artifacts been reviewed for adherence to quality standards? What is the review process used by the team?**

Project artifact quality has been achieved by peer reviewing all produced artifacts with other members of the team, and we have tried to keep older documents up to date with changes as they happen. Documents presented to external sources have received more attention than internal documents.

**8. Has the team had any issues with configuration management? How were these problems solved? What percentage of project artifacts is under configuration control?**

There were some issues with configuration management, mostly with the source control. Chief among these issues was obtaining permission for all team members to access and modify the git repository. Because this issue was solved using the team account to authenticate, we have had to take special care in marking contributions to the repository to determine ownership. We have relied on the Team's VM for configuration management of the database, and upon Google Drive for management of some documents. At this time about 80% of our artifacts are under configuration control.

**9. 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 has been tracking hours spent on named tasks, Sprint backlog points and velocity, and contributions to the repository. In the future we will track more code based metrics, such as test coverage and bugs. Early on the gathering of metrics was haphazard, but for the second half of the semester it has been very consistent. From studying these metrics, the team has better determined how long tasks will take to complete, and how to better assign work for efficient completion.

## **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 communicated with the sponsor through Dan Hudy, the customer representative. Most communications are done via email and there have been no issues so far. The sponsor seems happy with the communication levels as the customer representative is able to respond usually within an hour of receiving the email. There has been no adjustment to customer communication and there does not seem to be a need to change anything moving forward.

**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?**

Our project sponsor was, thankfully, very tech savvy. He was able to understand everything up to the design of the database. When going over the database design Eric was able to give concrete examples of how data would be stored according to our design. These examples helped our sponsor understand the more complex portions of the database such as document data storage and the auditing table.

**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?**

Most of the team works in a very effective manner. Some team members are not able to participate as fully as others so the workload is not evenly distributed. Some of the team's weak points include not having full attendance for necessary meetings and not everyone being proficient programmers. Thankfully we have some members who are particularly good at programming and design who are able to pick up the slack. Next term we will be assigning tasks to people we know can complete them so that the competent team members are not required to do someone else's tasks at the last minute. This way we are able to be assured that all the tasks we need done for each sprint are fully completed.

**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?**

Communication with the faculty coach is usually done via email or in-person meetings on Tuesdays and Thursdays. The communication was effective however the customer representative would forget to include the faculty coach in some important emails and would occasionally forget to fill him in. This problem has been mitigated for the future by creating an email group for the entire team that includes the faculty coach. Professor Hawker has been a great faculty coach and he does not need to do anything to be more effective for the team.

**5. Has the team needed to interact with department staff personnel, i.e. the office staff or Kurt? Has this been handled in a professional manner? Were there any problems with these interactions?**

The team did have to interact with Kurt in order to setup the VM. This was handled in a professional manner however there was quite a delay in response times from him. This is understandable as Kurt is a very busy guy but after getting access to the VM weeks late we are now running into issues with our application being unable to communicate with the database. This is not Kurt's fault but if we had access to the VM sooner we may have been able to identify that problem sooner.

**6. 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](http://linus.se.rit.edu)? How often are entries on the webserver updated?**

The team's website is not completed as of this posting but will be updated as soon as final exams are completed. The member in charge of the website updated it once a few weeks ago prior to our completion of many of the documents. Moving forward we will be assigning web site tasks to other team members to ensure that it stays updated as we complete the project.

**7. 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?**

The team performed exceptionally well for the presentation. The project was successfully demoed and the work that still needed to be done was discussed in full. Both the project sponsor and faculty coach reported that we had done a great job so far. Our sponsor in particular said he is looking forward to the work that will be completed over the summer as that time will be focused on implementing the "fun" features.

**8. 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 had the privilege of working with the senior project team that started their senior project with Trillium in the fall (Trillium Grant Management). They already knew of the environment that Trillium had and we were able to get a tech stack much quicker thanks to their help. Brian To in particular was always available to answer any questions we had in regards to the project.

## **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?**

Our work to date has definitely satisfied the sponsor however we feel that we could have done more. We had many issues that popped up in the middle of the semester, some of which we were not prepared for. These issues include being denied access to the fingerprint scanner SDK, inefficient team members, server issues, and becoming a product owner for another team (new fingerprint scanner application). Had we not encountered many of these we think we may have been able to complete more of the UI and could already have integrated the fingerprint scanner with the main application. Although AJ (project sponsor) was pleased with the results we could tell that our product owner (Karrie) was not very happy with the UI. We are hoping that throughout the summer we can work closely with her and her team in order to make our end users happy.