

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: Avalanche

Project: RecruitR; Tinder Meets Career Services

Sponsor: Jim Bondi

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?

Project deliverables were completed and reviewed throughout the semester. The initial deliverables were completed on time and have been revisited numerous times. The final interim deliverables have yet to be reviewed but most definitely will be. We will be submitting high quality documents to our coach that meets the department's standards. To assess the quality of the documents, we revisited the documents as a team and made sure everything was up to date. As far as sponsor requirements, there were no real artifacts required by the sponsor.

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?

Requirements elicitation was the team's biggest struggle. Going into this project, there were many non defined requirements. It took a few weeks for the team to really grasp what the sponsor was looking for, from there the team could come up with sufficient requirements that could be approved by the sponsor. At this point, we have specified all current requirements, but our requirements document is always changing as this is still a new idea and our sponsor has different ideas to add every week. During the requirements gathering phase we almost had a evolutionary methodology when it came to documenting requirements. We would first document the requirements we though the sponsor needed, then brought it back to him for review, noted his suggestions and comments, and then brought him back an updated requirements list. We did this until we were all on the same page and all requirements were approved.

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 the type of application and the interactions users perform with application are innovative, the technical solution is fairly typical. We did not explore many options as the design was fairly agreed upon by the team members. To that extent the design we arrived at has served us well. We have not found any errors and we have not had to make any changes yet to the design. We feel as though the design is fairly complete as it stands however if addition need be made it will only be new modules or services and as such will have minimal actual impact on the rest of the design.

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?

Currently at the interim milestone, the team has gotten a good chunk of implementation started. User registration is completed, Student matching is completed, and job posting creation is completed. If we were to estimate the completion of the product at this point, we would say 15%. We have yet to document what we implemented but will do so as soon as the next term begins.

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?

Testing, I'd say is the team's biggest weakness at this point. We do have some unit testing on our server side, which covers the most important jobs, but still is not sufficient enough. Testing will be a higher priority in the weeks to come as we realize we need to implement more.

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

An economic issue that pertains to our product is that fact that college students will be using our application as well as college students are developing the application. Because college students have very little money, and so do we, we have to think how we must develop our app so that costs can be down for all users. One thing we focused on is licensing. To keep costs down the team used tools that do not require the purchase of any licensing. This was a little easier since we can obtain a student license for some tools.

Ethical Issues

When it comes to the hiring process, which our application fits into, there is a great number of legal requirements for employers to be non-discriminatory. In order to assist with this we don't allow for things like profile pictures, inclusion of gender, race, etc. to be even given to the application in any way. In addition while showing a recruiter responses to problem statements they are only provided with the response and approve the response strictly on it, they are not told anything about who wrote it. In terms of the presentation phase we encourage the students not to share anything personal and only share about their experiences and knowledge to sell themselves to the recruiter again to force the non-discriminatory selection by a recruiter.

Social issues

Along the same lines as the ethical issues above we want to ensure that social issues or race, gender, etc are not exacerbated. There will be no preference for any one student over another and same goes for the recruiter.

Sustainability

With regards to sustainability the project sponsor has made clear he is a looking for a prototype something that could potentially become more. With that regard we have to ensure that if the project is continued on it's very pertinent that we have documentation and good code base to ensure its continued production. Lastly it is pertinent that the server side code especially be bug free as to prevent crashes in a real world environment so the system and sustain itself and not require constant interference.

Misc.

As our team sees it there is not really any implications on our applications from the following categories of contemporary issues.

- Political issues
- Health and Safety
- Manufacturability
- Environmental issues

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?

One thing that we must adhere to for this project is the amount of information that is given to the recruiter about the students. We will not be revealing student name until the last phase. We do this because in the recruiting process, you want to eliminate any bias a recruiter can form. This is something that our sponsor directly informed us about and something we did not initially think about.

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?

This project uses the Evolutionary Prototyping development methodology. The team demonstrates a prototype of the system to the sponsor, and then continues to develop the prototype based feedback we receive from the sponsor. When the scope of the project is met, and the sponsor agrees the project is a minimal viable product (MVP), the team will release this project into its final product. This will be at the end of the summer term.

Not only do we show off our prototyped project to the sponsor after each iteration, but we also use prototyping tools that do not require coding. These tools help the team and sponsor understand what is expected from requirements and scope without any implementation to the product. Once these prototyped "sketches" are agreed upon, the product will be updated with the feedback that was given.

This process is documented in the project plan, and any comments or suggestions we get from our sponsor are written down by the teams scribe.

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?

A big part of understanding what the sponsor was looking for was to learn the problem domain. To gain more of a domain expertise, team members would meet with the sponsor to get a better understanding of the application of the current domain, current issues and how we can solve those problems. Our sponsor would provide us with demo sessions to show us his world.

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?

The team is using the provided time/effort tracking sheets to track time working on the project. The team has done a good job of keeping track of total time however the breakdown of how much time goes into what is not specified in great detail. Going forward to improve this detail and better track the specifics of time and effort the team will add time and effort specifically to the tasks in TFS. With regards to how often these artifacts are updated for the majority of the semester they were updated weekly until the

last few weeks where work tasks took priority over updating the website.

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

We hold very productive meetings, a lot of work gets done, but sometimes too much work. What we mean by that is sometimes work that should be conducted outside of meetings gets brought into the meeting. This can change if members continually work on assigned tasks throughout the week and not just when we meet. Working on tasks like these distract us from discussing what is on the meeting's agenda.

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?

To date, all milestones have been met. We wanted to get user registration and matching completed by the end of the semester which we completed. Scheduling changed significantly halfway through the semester as we realized requirements gathering was taking longer than expected. Estimation has gotten more accurate so it may be easier to meet future milestones.

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?

There were few technologies that the team had to adopt. Some of these include Xamarin Forms, Spring, and Native mobile application development. We selected these technologies because we thought they would be the most efficient in creating a successful multi platform mobile application. We got all these technologies approved by our sponsor. There was a bit of overhead when learning these new technologies, but the team worked hard during this phase and can now apply them effectively throughout the remainder of the project.

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 artifacts were reviewed by the team after every iteration to ensure quality. Project artifacts will adhere to a quality standards by the end of the interim. Each team member will carefully review each of the sections of our artifacts before they are delivered.

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

We have not had any issue with configuration management. We are using Google Drive for our document configuration management. It allows us version history viewing and tracking. 100% of our documents are under configuration control since everything is created in google drive specifically because of its collaborative features.

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 major metrics the team is tracking is as follows: Time/Effort Tracking, Slippage, Defects per KLOC, Test Coverage, % of Passing Tests, Cyclomatic Complexity. As far as consistent tracking goes, we have kept up with Time/Effort very well. That being said, we regrettably did not start tracing the code based metrics until about 4 weeks after development started when we felt like the metrics would provide some insight. The major thing we have learned from these metrics is that we need to plan better to make sure we are committing to the amount of work we can get done, and that we need to include more tests. While defects per KLOC is low, we should still have more tests to cover more of our code.

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?

Communication between the team and the sponsor has been a struggle at times. This is mostly because our sponsor is very busy and cannot meet all the time. We usually send an email once a week to communicate sponsor meeting details. We update our sponsor during these sponsor meetings. Our sponsor thinks we do a good job communicating to date. Adjustments were definitely needed. After not meeting four a few weeks, it was important to inform our sponsor what we have been working on. This is something we initiated.

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 sponsor is decently technically savvy. Since he has a CS student working for him as a coop and on this project, it is easier to send or relay the coop the technical information to explain to Jim if need be.

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 as well as the sponsor believe this is an effective team. The reason the team is so effective is because we all work well with each other. Confrontation is rare between team members. Another strength is our work ethic. We all work hard and are motivated to get work done on this project. Something we can approve upon though, is pushing more quality code so there are less bugs, but also altering the way we respond to the bugs. Next term we will continue to communicate and work together to have a successful senior project.

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?

For communicating with the faculty coach the team is just using email and obviously in person discussion during meetings. We do feel as though the communication has been effective as every question is always answered and point made clear. We would not say there has been any trouble spots of communication but we would say that we could be a little more communicative about what we are working on week to week; even though that is covered in the sponsor meeting it's helpful to get advice about what should be priority, what's due, etc. As far as communication from the sponsor, it is plenty sufficient. The faculty coach reminds us of due dates, provides us with advice, and helps give us direction on a regular basis.

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?

Earlier this semester our team contacted department staff in order to set up our student account for our project website and also to set up a team VM. Kurt was out, and the staff was able to set us up with website capabilities but not the VM. We had to wait for Kurt to be back in office to get our VM up.

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`? How often are entries on the webserver updated?

Yes, as of the completion of this reflection the website is up to date with the most recent information. The website is updated on a weekly basis. That being said during weeks 11-14 updates were slightly lacking with minimal updated information as implementation

took priority in those weeks.

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?

We believe the team has done a good job during presentations to the sponsor and faculty coach. That being said they could be done better. Sometimes the presentation to the sponsor gets a little off topic or misdirected. As informal as we try to keep our meetings to keep things more casual it would be helpful for us in the future to walk through what we are planning to show to our sponsor ahead of time.

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 project has not required us to coordinate with any other senior project teams. Our sponsor meetings are held outside of the team rooms and the team has no issue finding space elsewhere when the team rooms are all reserved.

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?

Absolutely, with regards to the product delivery for the interim time frame we as a team believe the sponsor was satisfied. Even though the product currently just has some very basic registration and matching implementation the sponsor himself has said he is happy with what we have accomplished and is confident we can continue to deliver a product he likes. The only identified weak spot is the sponsors visibility to our matching algorithm. While we have shared the algorithm with the sponsor and used to sponsors input in creating it, the sponsor has requested access to view the implementation of the algorithm.