# 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: Celestial Orca

### Project: Interactive Kiosk

### Sponsor: BizCloud Experts LLC

### 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 requested documentation. Each document was inspected for spelling and grammar errors by another team member prior to delivery. Each document was also worked on by at least 2 members who cross-examined the document for quality assurance. Regarding quality, it most likely met expectations, but did not exceed them as they were based on templates or previous experience and there was some uncertainty when producing the documents.

1. **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 well and at this point gathered the requirements for a minimum viable product. More elicitation will be necessary once we get past the point of delivering the MVP. The approaches we used were reviewing the given project specs and creating requirements from those, asking questions and going back-and-forth with our sponsors, and creating mock-ups as proofs of concept. We don’t believe any requirements we missed, however there were certain steps/parts of a requirements that we did not capture. We followed an interview style as well as a prototype style approach to validating our requirements. Often we would create a mockup or wireframe to diagram our understanding of the requirements and sent it to our sponsor for approval/feedback.

1. **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?**

Our team explored many options for different aspects of our design space. For our back end, we looked into alternatives for registering IOT devices but the usage of AWS was required.

We also looked in to other DBs aside from DynamoDB but it was suggested by our sponsor that we use a simple relational MySQL database as that would fit our requirements just fine.

We looked in to alternatives to for our Frontend instead of using Angular but decided this was best due to the common knowledge within our team as well as the sponsor, whom we could use for reference.

We did stumble around designing our device registration process and had to revisit our use case for it multiple times throughout our process.

The reason for a change to our ERD and overall design was a misunderstanding between the sponsor and us regarding the vocabulary used to define some of the actors within the system.

We have a complete design for the MVP, however, we will need to do more design work for future implementations past the first release.

1. **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?**

A majority of the groundwork has been laid out for the MVP with regards to the development and implementation. Approximately 75% of the MVP is complete. The team has provided some documentation with regards to code comments, and documenting. The AWS infrastructure is documented via cloud formation scripts.

1. **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 main testing so far has been focused on requirements gathering and “testing” this against the design the sponsor has. This is essentially acceptance testing and is recorded We do not currently have an articulated test plan in place, however we have discussed creating the basis for a test plan in the interim between semesters and plan on having a fleshed out test plan and testing implemented for next semester.

1. **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 biggest economic issue we encountered was the cost of running services on AWS as running services and code on the cloud costs money; the costs are negligible to the company and they allowed us to run what we need to here and not worry about the costs.

**Environmental issues**

An environmental issue involves having multiple devices constantly consuming energy as they would need to be powered 24/7.

**Social issues**

Someone could potentially abuse the bulletin board to try to post explicit or controversial content. If they are close with an administrator, this could pose a problem.

**Political issues**

Using our smart tvs to push a political agenda. There could also be issues with someone in the group of administrators abusing their power and sharing content to benefit them or a friend.

**Ethical issues**

There is also always the aspect the privacy of the users submitting requests etc. due to them having to share their information over a network

**Health and safety**

There were health and safety concerns related to the impact of smart tvs on users eyes. This makes us consider accessibility constraints.

**Manufacturability**

The manufacturing costs of smart tvs.

**Sustainability**

The sustainability of a user running our system via aws for the long term future

1. **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 product must adhere to coding best practices related to the AWS Cloud and Dev-Ops. These are newer standards, however the team did have some prior knowledge and the sponsor gave support via slack and hangouts calls. We did not have to educate our sponsor because they were well established in the domain.

### 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 was Kanban but evolved into Scrumban for our second half of the project. Originally, our process was simply Kanban and we used our weekly four-up charts to track what we needed to get done and what we got done. We later created a schedule to list out longer-term goals. We didn’t explicitly convey this process to our sponsor so it was never officially “approved.” We will further document the details of our process in the interim and come back with a clearly defined process which we can convey to our sponsor and gain approval for. Our current process of using our schedule and our Kanban board are using Google Sheets as a gantt-chart type schedule and Trello for our Kanban cards.

1. **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?**

There was a large requirement to learn the problem domain as it was a new product being built from scratch using unfamiliar technology specific to the domain. The approach would be the same as how one learns a new tool such as researching, running sample resources, implementing tutorials and just getting familiar with the concepts within the domain through practice. There were some barriers introduced when gaining adequate support, and gaining permissions to some tools had some delays. The form of support came through direct messages with the small team of developers with messages going back and forth until progress was made.

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

The team used trello, github projects, and a gantt chart to track progress. The team has tracked what has been completed pretty well, however the level of detail and adherence to our tracking process has varied throughout the project. The project website was updated around once a week. Our Bizcloud google site was updated as new deliverables were created, and changes were updated in real time.

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

Overall yes, the team meets twice a week. When we worked on a task or document, we worked pretty effectively in-person, but anything left over after the meeting was likely to fall through the cracks. In order to improve our productivity it would be best to meet more frequently during the week to increase the transparency of each other’s progress in the project. We are also going to be implementing more explicit meeting topics to keep us on track during our added meetings, such as live integrations, designing, code review, etc.

1. **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?**

The team has not met all milestones to date. The minimum viable product milestone was not met toward the end. A majority of schedule changes stemmed from changes in the requirements and communication difficulties with the remote sponsor. A few tasks also slipped through the cracks such as our mid-term review with our coach. In order to meet future requirements, the team will change to a Scrumban methodology which will not only create more transparency for both the team and sponsor, but will also increase accountability on tasks assigned for the project.

1. **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?**

Yes; we were expected to adopt Angular5, various AWS tools and Android SDK. Team members, depending on what the interests/strengths were, would be assigned to a specific component of the software (the ones previously listed). To select appropriate technologies, we went in to some research for some aspects of the project, while other technologies were given as a requirement. There was support to validate things we produced, but not particularly giving us detailed documentation for example. There was a lot of friction in learning the new technologies as it was hard to test and validate everything until the proper framework was in place.

1. **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?**

The team has maintained quality control over artifacts by making sure the documents are reviewed by the team, the sponsor, and the mentor. This process has ensured the quality for documents is accepted across the board. Our review process is more or less just checking that the document hits all the points it is supposed to and validating the document against what the sponsor and mentor had in mind,

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

N/A

1. **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?**

Currently we are tracking effort and hours spent. It was not effectively tracked throughout this semester, but we remembered enough to back-track and log what we spent time on. We will be expanding our metrics to a more well thought-out set before the start of next semester using the knowledge we’ve gained from this semester and our anticipation of moving in to more development work for next semester.

### 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 has made it a point to maintain strong communication with the team sponsor. Weekly progress is communicated via four up charts in weekly hangouts meetings. In addition to weekly meetings, documents are sent via email and slack is used for any minor questions. If any additional clarification is needed on a topic, additional hangout meetings were scheduled. For next semester, we would like to get better confirmation that a message was received and have a more detailed course of action as we often made requests for reviews and things to get done, but received feedback much later.

1. **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 team really only provided technical input on a few subjects - our sponsor was well-versed in the technologies we were using and encouraged us to use their chosen technologies. One of the biggest technical input was on our choice of Smart TVs, which we invested a fair amount of time in to deciding our platform to use. The second area was a part of AWS that was largely unused by our sponsor; SNS - simple notification service, which one of our team members had utilized and suggested as a technology to be used for our product.

1. **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?**

Overall, we weren’t a particularly effective team. We did perform very well at some points, especially when it came down to the wire, however overall we didn’t perform particularly well. One of the biggest contributors to our success was probably our more-or-less easy going natures and getting along together, providing and accepting input from each other, and working together to achieve our goals. The biggest detractor was a lack of a clearly defined goal, plan and communication. Our lack of a plan was arguably our weakest point as it made it difficult to head in the same direction to deliver a product. When we did come together towards the end, however, we worked very well together and delivered what we needed to more or less.

1. **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?**

The team uses meetings in the SE team rooms to communicate with the faculty coach as well as email when needed. Communication has been relatively effective in terms of making our work transparent to the coach. To make communication more effective, we will be sharing our Scrumban board so work is more transparent. We may want to consider asking for more input on our progress in the coming semester.

1. **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 has needed to interact with SE personnel. The interactions were professional and there were no major issues.

1. **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 project website is up to date with artifacts that are required by the SE department. The artifacts were updated more or less on a weekly basis. The project sponsor also had a website we had to keep up to date.

1. **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?**

Informal presentations were made to the sponsor during our understanding of the requirements. Each presentation carried a lot of weight to get across our understanding or confusion of the system. Sometimes more confusion was added and there was a form of scrambling around to take in the feedback and make changes. The interim project presentation was done in a professional manner as each point in the agenda was spoken on with a clear idea of what was accomplished. The presentation did lack a lot of established metrics as well as our test plan which we plan on making up for earlier rather than later and not repeating what was done this semester and fixing our mistakes.

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

There was some collaboration with other senior project teams over the course of the project regarding technologies, best practices, etc. but overall the most visibility of progress and experience was during the final presentations. As for access to lab space, luckily the team labs were already scheduled out to accommodate all of our needs and there was enough room, except for once, to meet in the open lab outside the team labs. There were really no conflicts sharing resources.

### 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?**

The work to date has satisfied the sponsor in terms of design, but not in terms of delivered content. There were some points throughout the process where we may have had some misunderstandings with our sponsor about functionality or naming conventions, as well as a few cases where specific requirements were not shared or understood between the two parties, which could have led to some dissatisfaction. Weak spots related to this are the project tasks and the project implementation as well as a lack of confidence moving forward without sponsor approval.