Prototyping for validation

The method chosen to produce an acceptance criterion for the project is to use a prototype to validate the requirements. Prototyping ensures that missing or incomplete requirements are found and that the stakeholders can see what they put into words. A prototype was developed, then the wireframes were gathered to validate requirements. The process of presenting each section of the use case was to review the wireframe, then show the C-suite member the prototype.

Prototype Walkthrough - 001-0001: Prospective employees using the career webpage for applying to an open position in the company or to find information about the company.

The walkthrough starts at the start of the career page, in which the proposed updated website top navigation menu was inspected and was given a pass and it was noted that the navigation exceptionally adhered to not disrupting the readability or efficiency of the interface. Then the content for the company branches was inspected and given a pass with some praise on the effectiveness of using group photos for each branch. The content for the company itself and the culture and expectations were inspected and given a pass without further comments. Then open position search and filter section was inspected and was given a pass with no comments as well. The job description page from one of the open position items was inspected, initially the C-suite member had concerns of not being able to share the link of the webpage. However, it was proven that the webpage's link could be shared by texting him the link, then it was given a pass. Then I showed the error messages for being unable to access the job description page or to apply, which were given a pass without any comments which concluded the walkthrough of the first use case. The fact that this was exactly as envisioned is no surprise since the use case was heavily discussed prior to the validation.

Prototype Walkthrough - 002-0001: Prospect employee filling out online application and emailing the confirmation and results to the C-suite member and job applicant.

The walkthrough starts at the start of the application, in which the contact information section was inspected and was given a pass without any comments. The walkthrough proceeds through the basic application questions that all applications will share. Since the questions themselves were not fully made, several different example question items were made that suited the style of different questions that would be asked on the application. The multiple-choice question, the true or false question, and the checkbox question items were all given a pass. The free text question was given a pass without further comments but there was a concern with a redundancy in the file drop box item for asking the job applicant to explicitly select that they do have the document mentioned to select a file to submit. The concern was addressed with the explanation that this will ensure robustness in the filtering questions that will highlight that the person may or may not have the document needed which is a part of the

constraint for the application report item. The specific position questions section has no specific questions made. However, the non-functional requirement and constraints were discussed to ensure that the purpose of these questions ensure that the report can highlight if the job applicant is qualified. The C-suite member gave a pass on that section as well despite not having those questions formed because the questions will have to be made by the C-suite during the implementation. The C-suite now have constraints and rules for making those questions, so they are prepared to finalize the questions that will be in the in basic application questions and position specific question before the implementation phase starts. The last thing to inspect for the application was the resume file drop box section, then the summary page to double check the whole application, the C-suite member gave both validations a pass and generated excitement and interest. The last webpage to inspect was the confirmation page which was given a pass.

Requirements review.

There were still some requirements that haven't been validated by the prototype of both use cases. To produce an acceptance criterion for the remaining requirements, a requirement review was conducted on the remaining requirements that have not been validated. Since the stakeholder representatives only comprised of three people, a walkthrough review was conducted to ensure that not only everyone has a say on the deliverable but so the other stakeholders can understand the needs of their fellow stakeholders as well. A walkthrough process is giving the deliverable and soliciting comments by stakeholders in the meeting.

The first focus of the review was on requirement deliverables that pertained to the automated email sent by the application system. The first deliverable was about automated report email functional requirement, everyone passed the validation, and everyone understood the requirement. The next deliverable was about application status email functional requirement, everyone but the stakeholder representing the prospective employees gave it a pass, the stakeholder dissenting comment was that there was no message to tell the job applicant that the application was saved but not accepted when the C-suite member choses to save for later. This was true, so a note was made to add the fix into the backlog and the fix was handled accordingly after the meeting. The last deliverable was a non-functional requirement that detailed over the constraints of time to send the email to users, what attachment and content the system is allowed to send and who can receive the emails, everyone gave a pass to that as well without any meaningful comments.

The second focus of the review was on requirement deliverables that pertained to storing the reports that the C-suite accepted or saved for later. The first deliverable was about how the accepted and saved applications will be stored in a database for the C-suite member to consult for new hires for later or to see the information anytime, everyone agreed and passed the requirement. The next deliverable was the non-functional requirement to separate the accepted candidates and the saved candidates. The next deliverable was the non-functional requirement that detailed over the constraints of time that it would take to store the report, and that the database storage should never reach 90% capacity, everyone passed it without comments. The last deliverable was the non-functional requirement that only allows the C-suite or ITS to manage or to delete reports, everyone agreed and passed it.

The third focus of the review was on requirement deliverables that pertained to analytics that will provide insight into the effectiveness of the webpage. The first deliverable was the non-functional requirement that the webpage should track where the overall user base selects redirect to each webpage to keep track of traffic on the website. The next part of that constraint was that the system should track the positions applied and the number of applicants. The last part of that constraint was that the system should also track inaction or a bounce rate.

Acceptance test designs

Alpha testing is a small test build for a small group of users testing the product that focus on the functionality and the comfort of the user. Beta testing is a larger test build of the product for a larger group of users focusing on the performance, stability, and bug testing. Alpha and beta test plans were discussed with stakeholders. The Alpha test plan involves a small group of test users, only three at most can be expert users while the rest of the test user participants will have to be gathered from local colleges and universities. The purpose of the that test is evaluate how the reports will highlight information, how the automated email system can handle a small number of users sending information at once that ensure stability, and to figure out if the database properly organized the data and stored them correctly. Another test that will be done is to see the reception on the content in the career page. The beta test plan was to increase the test user group and expand the demographic from college students to workers already in the industry. The purpose of the test is to ensure that the questions of the applications fulfill the requirement that they can highlight information important to the C-suite member. Another purpose is to evaluate the largescale stability and security of the automated email system and database that stores the reports.

Operation acceptance testing is a test that ensures that the system is ready to be used in a production environment. Operational acceptance test plans were discussed with the C-suite. The first set of tests were to ensure that the links on each web page work by using them, ensuring that the redirects are taking the proper amount of time allowed in the constraint, and loading the page correctly. The next set of tests were to ensure that the application system sends the emails within the time constraints as well as ensuring that the email sent the proper content and attachments. The system sends the emails to the correct recipients and the recipients that are allowed to receive the email.

Memo

Hey everyone!

Good news for the validation of the requirements! The wireframes for each section and webpage have been reviewed and the prototype has been presented to a C-suite representative member. All the discussions and meetings for gathering requirements paid off and all the requirements have been validated and almost all have been passed and the except for one oversight that was amended by our

hardworking team and wonderful feedback. The proposed content and career page have been greenlit and so has the online application system.

The validation that the prototype did not cover was covered in a requirement walkthrough review. The automated email reports have been green lit, but not the application status emails due to a missing email message for job applicants, the method of storing reports that the C-suite member accepts or chosen to save has been passed. The method of tracking user analytics on the website has also been passed.

The alpha and beta test plans discussed have a small group test group for the alpha that test on how the reports will highlight information, stability of the system, reception of the career page content. The beta test group will be increased and expanded to include workers in the industry, they will test on the overall performance, stability, and security. The operation acceptance test plans to test if the webpages load within the constraints and to ensure the email system sends email within the constraints.

Thanks to the hard work everyone has been showing, we will now begin the next phase of the project.

Academic

The specific needs mentioned were met by ensuring that the text is presented as readable and clear throughout the application question examples. We also design non-functional requirements for the report to filter and highlight things based on the merits that the applicant brings to the application. Non-functional requirements were also made to not include any questions that elicit demographic information besides gender. Cultural factors have been met through the content of the culture of the company detailing that the company has employees with diverse religious cultures and morals and that the company is good with time flexibility.

The requirement engineering process supports the validation of behavioral requirements by using identification, elicitation, validation testing, and documentation processes that validate the system's behavior. The processes for identification facilitate identifying and clarifying stakeholder requirements. The elicitation process ensures that the behavior of the software system is complete and clear, which include constraints as well. The testing process supports validation of behavioral requirements with prototyping and simulating scenarios to ensure the various expected behaviors of the system are expected and needed. The documentation process supports validation by documenting clarifications, specific or added constraints, and why a validation failed to ensure that the issue is fixed and that similar ones do not arise after.