**Progress Report 2**

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**Program of Study**  
Masters of Engineering (Software Engineering)

**Employer Name**  
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**Completed Tasks**

I studied about Test Plan to further the task of development of the SOAP Listener. Furthermore, I analyzed AutoConf that is to be used in the development of the project. I completed studying the server-side programming models. Since my project was old and the information for its setup was outdated and had obsolete documentation, I wrote the documentation for its setup. In addition to this, I have been writing a documentation page for our team Jargons. Furthermore, I understood the design of the SOAP Listener to help capture the detailed functionalities. Apart from this, I studied Jenkins tool. \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

The next task was to understand Jetty and Tomcat to make a decision as to which servlet container to use in order to host the Soap service. Following this, I, along with my supervisor, did the midterm evaluation for the internship. I went through the Perl script to understand the detailed design of the project so as to implement the replica in Java. With this began the second phase of the Software Development Life Cycle (SDLC) for the project – Design. The expected output for this phase is a Design Document. I also established communication with the QA team, product owner and the existing testing team working on the project.

Following this, the main phase of coding started where the actual implementation is to take place. I am understanding and going through various tutorials for the implementation. The tools like Spring boot, CXF, yaml are to be configured into the project.

**Progress Made**

I have understood the workflow and documented the SRTPA project so that it is easy to work with the SOAP Listener as the Listener is meant to be operated with SRTPA. I have \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

<https://www.logicbig.com/tutorials/spring-framework/spring-integration/jms-template.html>

Further, I have understood the priority tasks I need to implement in the SOAP Listener. I have understood and analyzed the SOAP Perl script to gather all the requirements of the SOAP Listener so that the functionality of the Java SOAP Listener remains the same as that of the Perl script for the Listener. I have completed the Requirements Analysis document and had it approved from my supervisor, the product owner and the testing team for the SOAP Listener.

**Learning**

I learnt about various new technologies, AutoConf being one of them.  Autoconf is a tool for producing configure scripts for building, installing and packaging software on computer systems where a Bourne shell is available. I also learnt about Server-side Programming Models that is an essential part of the project. It is about choosing the correct ServiceEndpoint which can correctly transform the input to instance for your service. The project has given me a better understanding of working with Eclipse IDE. My knowledge of Git and Linux has improved significantly.

I have learnt about Jenkins, an open source automation server to automate some of the software development process. I have also gained the knowledge of yaml for configuration files. My team has introduced me to various morganized (modified for use within the Morgan Stanley firm only) tools that are useful for working with my project and used in general on a day to day basis. Besides this, I have attained the knowledge of various morganized libraries meant to be utilized for the project. These include Soap libraries, spring boot, CXF, JMS, JMX, WSDL and many more. For implementing the command line arguments parsing, I studied Apache cli and JCommander. Based on the features of each, I decided to implement JCommander.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*One of my major learnings includes how to do Requirements Analysis. Generating documentation has been another important activity I grasped during the work. Documenting everything that you do has been the norm of my supervisor. Finally, I have imbibed the functionality of the SOAP Listener, a protocol specification used for exchanging structured information across the computer networks. I have also developed the skills of team work and remote communication. We have daily standups with the New York team and weekly progress meetings that has helped me improve my communication skills as well.

**Job Performance Objectives**

I have understood and documented the requirements, the task covered under the requirements analysis phase. I always try to communicate issues with other team members so that the project is not stuck at one point for too long. We have daily standups to share the status of our progress with other team members. For the time being, I have delivered my tasks on time keeping in mind the deadlines for the tasks.

Ever since the start of my internship, I have been documenting everything that I discover, develop and work on. I have completed the first phase of the development cycle on time. Besides I have also completed mu onboarding on time, have attended regular team meetings and have prepared my daily status reports to improve communication with other team members. I, along with my supervisor, have come up with a strategic plan to follow for the project and deliver the required documents for each of the SDLC phases timely and correctly.

**Professional/Personal Objectives**

I communicate with the remote team for the project on a regular basis which helps demonstrate my ability to work in a team. Learning and applying new skills have very often been a part of my since I am new to many a tools and technologies being used in Morgan Stanley. Almost every day, I come across something new to learn and acquire knowledge from. I have also learnt how the Software Development Lifecycle process works in a large organization. I am, myself, using SDLC for my project.

Apart from this, I have been learning more about the new office, familiarizing myself with new technology, and gaining upward feedback from team members to establish further what can be improved upon. I have been using the daily standups and weekly progress meetings as a means to improve my communication skills and confidence, and getting along with others.

**Meetings Attended**

The very first meeting was the Orientation that introduced us to the Morgan Stanley way of working and the norms of the organization that helped us begin our work term in the firm. The Managers Meet was also held on the first day of the internship to introduce interns to their managers (supervisors) and get along with them. The managers gave us a walk through the office, lead us to our desks and introduced us with how to setup our desktops. One another fun meeting was the Mentors’ Social where the interns were supposed to meet and know their mentors, ask questions and share with them anything they would like. A mentor is assigned to each intern to help him/her personally on any possible issue he/she could face throughout the internship.

My team has daily scheduled standups to discuss the work plan for the day and deadlocks, if any. This keeps everyone updated of what the team members are working on and helps resolve issues sooner. We have weekly code review meetings that are meant to give feedback on any code changes carried out during the week which ensure that only meaningful and understandable code is approved. In addition to this, there are weekly progress meetings which are meant to setup weekly milestones for each of the team members and give feedback on their progress. Another weekly meeting is the mentor meeting where I catch-up with my mentor to discuss what I am working on, how I like it so far and discuss concerns, if any, I have about my team, my project or the firm.

One another meeting was with the HR team for Goal-setting check-in to raise any issues with the goals set for the internship and discuss the progress going on towards the achievement of these goals. Also, we have a monthly meeting of people interested in programming Graphical User Interfaces (front-ends) at Morgan Stanley. It helps nurture your interest in GUIs.

Apart from these, a few sessions were held for the employees which included a Diversity Q&A Session to know how diversity is considered in Morgan Stanley, a Machine Learning Session that introduced the employees what machine learning is and how it is implemented at the firm and an NLP Tech Talk that introduced Natural Language Processing and introduced the project on NLP that Morgan Stanley has been working on.

**Literature Review**

Onboarding wiki of Morgan Stanley has helped me setup my desktop and get to know my team and the people I will be working with remotely. I have used various TWiki documentation pages (internal to Morgan Stanley) to study different tools and technologies to be used, how to setup the project, what applications to install, how to work with Linux Dev environment, how to establish Kerberos authentication, how to access and work with database, database entry process workflow, Staged Real Time Products Adapter project workflow, to study morganized java libraries, to setup my own queues for the project and many more a things.

I also referred to the training site for Morgan Stanley to complete the mandatory onboarding and learning about Morgan Stanley business. Besides this, I reviewed various online tutorials to improve my understanding of working with Linux and using various Linux commands, to improve my knowledge of Git commands, understand the SOAP protocol for messaging, Investopedia to learn different terms related to investment to know more about financial management.

**Skills Acquired**

* Leadership: I have acquired this skill as I can get other people to help me whenever I am stuck at something in the project.
* Written skill: Documenting everything that I do has helped enhance my writing skill as it is increasingly important to be able to convey what you have worked on.
* Organization: I have been able to structure my schedule and prioritize my tasks. I have been planning ahead of time what resources will be necessary and how long each phase of the project will take.
* Time management: I have scheduled my time appropriately by effective goal-setting, prioritization and planning. I have set clear milestones for working on the project.
* Ability to meet deadlines: I have worked as per the set deadlines till now and have done my best to complete my tasks ahead of time.
* Willingness to learn: I have a desire to improve my professional skills and competencies. I try to search for ways to improve myself, keep myself up to date with the changes going on and keep track of what my team members are working on through daily standups.
* Reliability: I try my best to diligently follow through on commitments and consistently meet deadlines, demonstrate regular and punctual attendance, comply with organizational rules, policies, and procedures and follow written and verbal directions. I also check my work to ensure that all essential details have been considered.
* Ability to work with others: Giving and accepting appropriate delegation, following directions, and communicating clearly with the right people has been a part of my teamwork on a daily basis.
* Professionalism: I have always been encouraged to arrive on time to meetings, with note-taking materials in hand, and actively participate, keeping up to date knowledge and skill, seek input and help from others when needed and always be competent and reliable by producing high quality work and meet deadlines.
* Technical ability: Exposure to many new technologies like that of Jenkins, Jira, Leela, Kerberos, and various internalized tools have expanded my technical skills horizon.