Executive Summary

The desire of the stakeholder involves the development of an application which will provide a framework for various services outlined in the business requirements section. This framework needs to support the ability to integrate separate modules in the future to allow for the services to change without changing the core code. These modules will allow the development team to design new features in a dynamic fashion.

The reason for this product is to help the stakeholder easily calculate annual federal taxes, payroll paychecks and the monthly payout on an IRA. It will allow the stakeholder to enter the pertinent information required for each of the calculations and return to them the amount at the end. Using the program will save the stakeholder time as they won't have to do all the calculations themselves. It will also reduce the likelihood of a calculation error to basically zero as the program will do the calculation for you.

The project's significance lies in its ability to provide a business service that can handle annual federal taxes, payroll calculations, and monthly payouts for IRAs. In addition, the service includes a utility layer that enables users to switch between different languages without affecting the main code. This feature allows for the addition of new features to the existing codebase without impacting service performance.

Business Requirements

The overarching goal of this team is to design and code a financial service. This service will accomplish three major tasks. These tasks include: calculating annual federal taxes, calculating payroll paychecks, and determining the monthly payout on an IRA. When designing the service to do annual federal taxes, there will be options created to enter the base gross annual income, the year, and the filing status. Once this has been completed, the service will then return the amount of federal taxes that are due. Calculating payroll paychecks will require things such as FICA, medicare, and state and federal taxes to be taken into account. This will be based upon the number of pay periods and the person's gross annual salary. Finally, in order to determine the monthly payout on an IRA, the gross amount in the IRA will be given in addition to an age for payout as well as an age for receiving the last payment. Once this is accomplished the monthly payout per year will be given for that amount.

Team Members and Their Background

William Harrison Simms:

I am a senior in Computer Engineering. My related background includes, but is not limited to, web development, general coding skills, real life experience working for a data processing company (ADP), and system design. I enjoy working with others and do my best to contribute as much as possible to my team.

Akhil Manoj:

I am a sophomore in Computer Science. My related background includes: coding knowledge in multiple languages, hardware and software knowledge, data communication and networking experience, and problem solving skills. I enjoy working with a team using my prior experience and knowledge to contribute in any way possible.

Matthew Coffey:

I am a senior in Computer Engineering. My related background includes: positive customer communication from my internship and part time work, general coding skills in multiple languages, hardware and software knowledge of different components and devices, and problem solving skills. I strongly like working in a group/team and enjoy using the ideas of everyone in the group. I try to contribute as much as possible to the team and look forward to tackling whatever project we are assigned to.

Nguyen Tran:

I am a senior in Computer Engineering and BS. Environmental Studies. Based on my experiences from Oak Ridge National lab internship from last summer and my current internship at CCAM in System team, my related background includes Data science, Machine Learning, ROS, API, Docker, Computer Vision, hardware and software, Object oriented, multi-programing languages include Go, team work. I am very good at programming, solving problems and debugging. I also can coordinate a team and help other team members with programming or debugging.