

**Team Name: SCWZ-EVOTE**

**For this milestone we will provide our key tools, technologies, and the process model for the course project. All the information is provided below.**

**Key Tools:**

- Microsoft Visual Studio is our IDE to write the code for our application.
  - **Reasoning:** Using visual studio allows us to construct the code and user interface. The immense catalog of information and documentation behind it will allow for a smoother time in completing the project. We will use Visual C++ and XAML as our language of choice.
- Developing WPF applications for the result of the project
  - **Reasoning:** WPF is an architecture built upon the .net framework which is useable for any C based language (for our case C++), works with XAML which enables GUI and graphs. This will allow us to develop simple to use and make a clear to understand UI.
- GitHub is our choice for communicating our code from a distance.
  - **Reasoning:** GitHub, although required, is the best and most convenient form of coding collaboration. We can keep track of versions in case we need to backtrack from pervious versions if need be. We are able to work at our own times and in our own locations with ease.
- Google Docs will be used to write up documentation.
  - **Reasoning:** We will use google docs because it has functionality to make our words clear and concise. It allows for live collaboration and can be easily converted to any file type.

**Technology:**

- We will be using C++ because it is a familiar language to us, has a lot of features as it is a Microsoft owned property so it works well with the tools we will use as it is also a Microsoft owned property. Being able to code in a familiar language will allow for increased efficiency and increased quality control.
- We are utilizing XAML because it will allow us to create visualizations of our data for the user to see. This allows us to create structured and clear depictions of the data.
- We are using web API works well with visual studio and WPF. It also handles data well, which is critical for our needs in storing and securely accessing the information.

### **Process Model: The V Model**

A sequential process model that assures that each step done is complete and correct before moving on to the next step, limiting potential unnoticed errors. Additional reasons are as follows:

- Risk-analysis is a key point here. Each step needs to be completed with clarity and accuracy so that we prevent any potential security leaks that may occur.
- A benefit of this model is that we only move on in steps once we have fully tested them, meaning we are minimizing any chance of having to redo any steps.
- By using this model, we will increase the quality of our product, which is critical when dealing with sensitive information.

We acknowledge a drawback of the V model:

- Similar to the waterfall model, the v model is built in a way in which you cannot return to a previous state. However, since each step has a testing phase returning will not be necessary, just as long as we spend enough time in each step to fully flesh them out.