Monthly Project Status Report for the month of: January-2021
Date Report Disseminated: 2/3/2021
Project Sponsor: N/A
Project Title: Integrated Development Tools
Mentor: Brandon Busby
Co-mentor: N/A
Faculty volunteer: N/A
Graduate student volunteer: N/A
Team name: Sokka
Team members: Jacob Huber; Shawn Poole; Malachi Potts; Alex Udodik

Schedule, Roadblocks and Solutions

The project is currently on schedule. There was a delay figuring out whether to rewrite the GUI in Typescript so that it would merge with the extension more easily. One of the issues that arose was a lack of substantial support/documentation for user-interfaces in Typescript. This would introduce serious delays learning and troubleshooting for the GUI component. We decided to preserve the original GUI in C# and enable it in the extension by running its executable.

Personnel Changes and Team Needs.

There have been no personnel changes within Team Sokka and Jacob Huber remains as the team's liaison. There have not been any needs for the team as of currently, but there is potential for a subscription for hosting the database on either Microsoft's Azure or AWS hosting systems.

Current Objectives, Goals and Status

The current objective is to finish the Codebase View. The tasks making up that objective are as follows:
- Finalize UI design.
- Implement UI components.
- Dynamic display of relevantly queried info.
- Query with filters for date ranges, authors, directories, and files.
- Adding the ability to switch repositories which also requires modifying the database schema.
- Implementing simple AI core placeholder.

The current state of the project is that the extension can now execute the Codebase View alpha prototype, the database schema is under reconsideration and needs further validation to support more than one repository, and a UI drawing is in progress for the redesign of the Code Search Tool GUI.

Deviations from the Plan, Risks, Risk Recovery, and Risk Analysis

Deviations from the plan are, instead of having the GUI and Visual Studio Code extension operate as separate applications, the extension now runs the GUI. The notification system has been mostly scrapped from the project.

Some of the risks currently include:
- The schema does not reflect desired functionality and when implemented corrupts all of the current data. (Reasonable possibility)
  - Recovery: Scrap database and fix schema (updating database isn't difficult).
- The UI redesign takes too long. (Unlikely)
  - Recovery: Simplify or scrap plans to dynamically display data
- The AI is too difficult to implement. (Unlikely)
  - Recovery: Scrap it, it is a stretch goal for the project.