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 after overcoming a roadblock that was preventing the project from continuing. The roadblock consisted of whether to keep developing with the current plan or to recreate the Code Search Tool in typescript and combine it with the extension to be one entity. One of the issues that arose was that there was not any substantial support/documentation for user-interfaces in Typescript that will let the project be finished in time. The solution ended up being to preserve the original Code Search GUI in C# and letting the extension execute the Code Search GUI via 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 may be a 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 of the project is to finish the Code Search Tool which is separated into sub-objectives. The objectives are as follows: Completing the UI, improving and rearranging the existing elements, adding new elements, completing filtering, adding the ability to switch repositories which also requires modifying the database schema, adding the code search tool to be executed within the VS Code extension, figuring out what repository data to use as input for the training of the AI core for developers. The status is that the extension can now execute the Code Search Tool, the database has been modified 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, they are being merged into one application. When the notification system was being introduced at the start of the first semester it was completely disregarded from the whole project. The main risk currently is adding an AI to the GUI that gives developers “grades” based on their commits. Risk recovery for the AI is that it is an additional feature that is not necessary for the project. The likelihood of success is dependent on if the original components are completed or not. The consequences of not completing this task is minimal because it is only an extra feature to the project.