

Project C.A.S.P. - Weekly Update 9

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1 Development Progress

A meeting was held Monday immediately after class, mainly to plan meeting times for the week. Since then, Chris has been absent and attempts at communication have not been successful. In addition to Monday's meeting, Dylan and Ryan met Tuesday, Wednesday, and Friday of last week to discuss progress and work on the project. The foci this week were the Outline and Analyze Modules. As of last week, the Visual Studio plugin implementation has been dropped as a requirement, and the Lint Module has been set to last to be completed due to progress setbacks. It is unsure whether the team will be able to make adequate progress on the Lint module as of yet.

By the end of the week, Ryan was able to complete the flowchart generation algorithm. He utilized a graph structure, relating each flowchart "block" to one another in virtual space as it would be represented in visual space. Each "block" is a node in the graph, containing the type of node (Start, End, Process, Method Call, I/O, Decision, Loop, etc.), textual data, and an identifier, and each block is connected to adjacent nodes using directed edges.

The Analyze module currently has code to take For loops and search if it has a `{declaration}` or an `{assignment}` based on our grammar. If it has a declaration it will look for `n` on the assignment. It looks for '`i,i`' symbols. It will also look for a unary expression (`++,-`) or a fraction or for multiplication. Depending on what it finds it would return big O of $n \log(n)$ etc. It was discussed how we would handle a while loop in this module and we think we will look for the variables that would take us out of the loop. However, for now Dylan focused on for-loops and constants

2 Weekly Tasks

In the coming week, the team will be working hard again to regain ground on lost progress as a result of Chris's absence. Dylan should be completing the Analyze Module this week, and will then transition to the Translate Module. Ryan will begin work on the Standalone Application implementation, specifically trying to create a flowchart from the Outline Module, based on the sample input. If

that is completed, Ryan will assist in completing the Analyze and/or Translate Modules. If available, Chris will work on the Translate Module.