4TB3 Project Development Plan

David Thompson, 400117555   Rohit Saily, 400144124   Raymond Tu, 400137262   February 22, 2020

1   Project Description

1.1   Research Question

How does the compilation time of the P0 Compiler differ between a sequential implementation and a concurrent implementation using Goroutines in Golang?

1.2   Developmental Challenges

1.3   Test Plan

1.4   Documentation

For the documentation of our project we will be using GoDoc. GoDoc is similar to documentation generators for other programming languages, for example JavaDoc for Java and Doxygen for Python. GoDoc generates documentation in PDF or HTML format from comments in the source code. Following the standard conventions for GoDoc will provide easily readable source code and good documentation for all methods implemented in the P0 Compiler. GoDoc is chosen because it is the standard documentation standard for Golang, which is the main programming language we will be using for this project. The conventions for a standard GoDoc comment to generate HTML is easy to read, and alone would already provide readable source code to any viewer. In conclusion, GoDoc is intuitive to use and similar to existing documentation standards we have experience with, which makes it the perfect choice for this project.

2   Resources

2.1   Transcompilation

Python to Go transpiler from Google: `https://github.com/google/grumpy` Reference to the inception of the project: `https://groups.google.com/forum/#!topic/golang-nuts/tu75K5odt8U`

2.2 Development

2.3 Testing

2.4 Poster Research

3 Division of Labour

4 Weekly Schedule

Week	Deliverables
Week 1	Development Plan and Proposal
	Setting Development Environment
Week 2	Transcompilation and Beginnning of Development
Week 3	Working Prototype
Week 4	Testing and Refinement of Prototype and Documentation
Week 5	Poster Presentation Creation
Week 6	Poster Presentation Creation