**SENG 300 Group Assignment #1**

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The code provided is expected to be able to take in user Input of a Java Type and Pathname of where files are located, which then returns the number of references and declarations of the values passed in.

We have gone through a few iterations over the week as we understood the assignment requirements further. However, given the assignment details and the significant changes made it is highly likely there are parts of this assignment that do not function to expectations. To that end, we emphasized updating the code to remove redundant classes and functions to help with the second group project.

There are four main classes;

* Main – User input class, validates and manipulates user input to pass over to MyParser Class and then calls for final outputs from MyParser.
* MyParser – Loads files from directory, parses each file into text, builds an Abstract Syntax Tree (AST), calls the VisitReference and VisitDeclartion classes, maintains the count of references and declarations.
* VisitReferences – Looks for all references in the provided ASTNode and compares this to the value provided by the user. If matching increments a counter.
* VisitDeclarations – Looks for all declarations in the provided ASTNode and compares this to the value provided by the user. If matching increments a counter.

Diagrams

* State Diagram: Is designed to show the different states a user can interact with in the program. They can supply the program with 2 or more arguments for the program to run as intended or they can supply the program with less than 2 arguments and exceptions will be thrown.
* Class Diagram: Shows our four main classes as well as an exception class and a parent class and its methods used.

Sources referenced:

1. <https://www.programcreek.com/2011/11/use-jdt-astparser-to-parse-java-file>
2. org.eclipse.jdt.core.dom API