German University in Cairo
Media Engineering and Technology
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Advanced Computer Lab, Spring term 2017
Milestone2

In this part, you are required to create a syntactic analyzer for a modified fragment of the Go language using CUP. The syntactic analyzer, or parser, will read the tokens returned from the lexical analyzer and check whether it follows the grammar of the language or not. Moreover, your parser should output whether the go input file is syntactically correct or not as shown in the output files of each input. You will find 10 sample inputs provided with the project folder and their corresponding outputs to check your parser.

The following link is for the Go documentation:

- The Go language website https://golang.org/. However, you will find a **MODIFIED** fragment of the Go grammar, that was chosen for the scope of your project, in the **GoGrammarModified.pdf** document. Please refer to it.

As for the **AP.java** file it should be used as it is for initializing both the lexer and the parser and parse the input file. No changes should be done to this file.

You should build on the lexer that you previously implemented in Milestone 1. However, some changes may be applied to the lexer in this milestone.

In this milestone you are required to submit a zipped folder named after your team number containing the following files:

a) parser.cup

b) Lexer

Hints:

- You will need to use CUP terminals precedence property to set the precedence of the different operators in the language.
- In the start of the parser.cup file there is a section called parser code that you can use to add any java code that you need to be added in the generated parser.java file.

Please Note that:

- The milestone deadline is on 23/4 at 11:59 PM .
- You are required to submit a zipped folder named after your team number that will be announced later.
- Please check the updated teams list on the met website.
- **No late** submissions will be accepted.
- Cheating cases will be graded by 0.
- It is your responsibility to make sure that the files were uploaded successfully to the website.