Design Of Compilers

Final Project

Tiny Language Scanner - Java

Group 16

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# Introduction to Scanning

Scanning is the phase of reading the source code program as a file, or array of characters and divide them to Tokens based on their types. Tokens are logical entities that are usually defined as an enumerated type, in our software we defined them in a HashMap based on their sign or sequence of characters.

Token Types in our project

1. Identifier
2. Number
3. Reserved Word
4. Special Symbol
5. Assignment Operator
6. Comment

# Structure of our software

1. GUI Classes in GUI package
2. Model classes in Model package
   1. Scanner class
   2. Token class

Token class is considered as a data class which contains TokenType as of type String and TokenValue as of type String which is an array of characters.

Scanner class has method called *scan()* that takes String as an input and split it into array of characters and start scanning the input and extract tokens from it. Then add it to an ArrayList of Tokens that are filled in the TokensTable (GUI related).

# Screenshots of the system

Run Compilers.Exe or Compilers.Jar from G16\_Project\_Executable folder



