COMPILER CONSTRUCTION
LAB TERMINAL

NAME:

   USAMA MANSOOR

REG. NO:

   FA20-BCS-026

CLASS:

   BCS-7B

SUBMITTED TO:

   SIR BILAL HAIDER

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SEMANTIC ANALYZER:

- ## QUESTION NO 4:

How functions works step by step?

- ## ANSWER:

SemanticAnalyzer:

Following are the steps involve in SemanticAnalyzer function:

1. ## Loop through Tokens:

The code uses a for loop to iterate over the list of tokens.

2. ## Rule Selection:

Inside the loop, it checks the current token against three rules (Rule1, Rule2, and Rule3) to determine which rule to apply.

If any of the rules indicate a match with the current token (by returning a string starting with "Start"), it sets the selectedRule variable accordingly.

3. ## Rule Application:

If a rule is selected, it applies the corresponding rule to the current token.

If the rule application returns a state that starts with "Ok" or "Error," it adds the state to the errors list and resets selectedRule to 0, indicating that the next token should be processed using rule selection.

4. ## Backtracking for Unmatched Token:

If selectedRule is still set after processing all tokens, it means that the last rule is still active. In that case, it applies the corresponding rule to a new (empty) token and adds the result to the errors list.

5. **Errors:**

The final result is a list of error messages in the errors list, indicating issues found during semantic analysis.

LEXICAL ANALYZER:

QUESTION NO 04:

Class diagram of project

ANSWER: