



**COMSATS Institute of Information Technology
Department of Computer Science, Attock Campus**

“CC Mid Lab”

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Course: CC (lab)

PROGRAM: BS(CS)-7A

Course Instructor: Mr. Bilal Haider

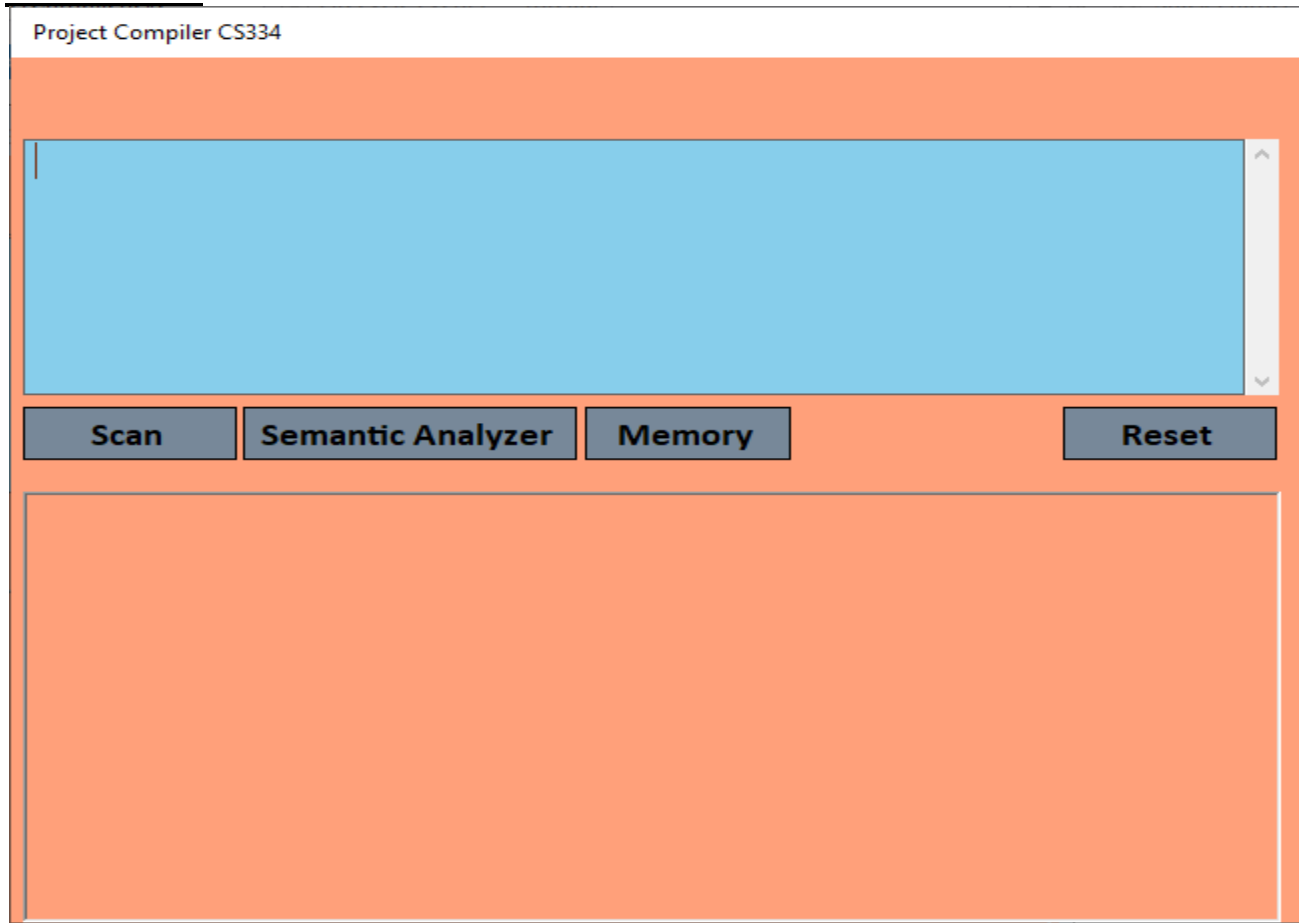
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QUESTION NO.3

Process Of Execution:

1. The process starts with the acquisition of source code written by a programmer in a specific programming language.
2. The source code undergoes tokenization, breaking it down into meaningful units called tokens. This involves identifying keywords, operators, identifiers, and literals.
3. After tokenization, semantic analysis is performed to ensure that the code adheres to the language's semantics. This includes type checking, symbol table creation, and other checks to verify the correctness of the code's meaning.
4. The program allocates memory for variables, data structures, and other elements needed for execution. Memory management involves dynamic allocation and deallocation as the program runs.
5. Report any errors or warnings found during the scanning, semantic analysis, and memory analysis phases.

Screenshots:



Project Compiler CS334

```
int a = 10;  
int b = 20;
```

Scan

Semantic Analyzer

Memory

Reset

int -> Identifier

a -> Variable

= -> Symbol

10;

int -> Error

b -> Variable

