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* AI :- Basic Parsing Techniques

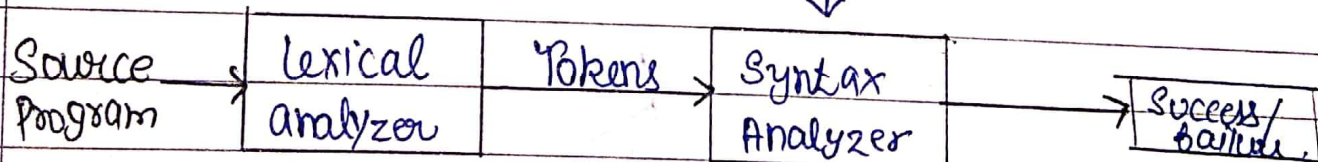
Parsing :-

- It involves analysis of words in the sentence for grammar and arranging words in a manner that shows the relationship among the words.

- For example :- The sentence such as "The school goes to boy" is rejected by Syntactic Analyzer (Parsing).

- Parsing (also known as syntax analysis) can be defined as a process of analyzing a text which contains a sequence of tokens to determine its grammatical structure.

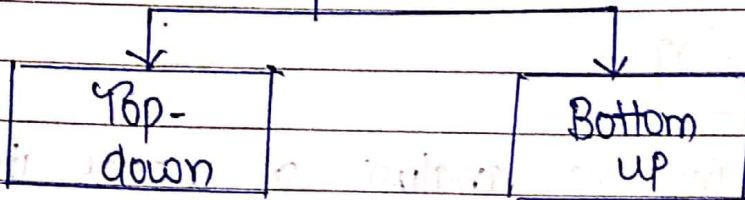
Grammar for source program language



• The Most Commonly used Parsing Techniques :-

- Top down parsing.
- Bottom up parsing.

Parsing.

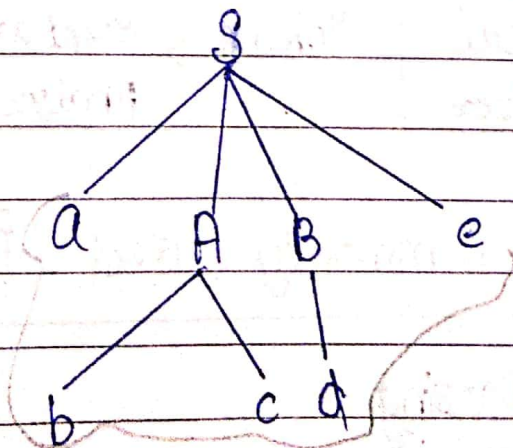


Top down parsing:-

→ The top down parsing is known as recursive parsing or predictive parsing.

→ In the top down parsing, the parsing starts from the start symbol and transform it into the input symbol.

Example:- $S \rightarrow aABe$
 $A \rightarrow bc$
 $B \rightarrow d$
 $W \rightarrow abcde$



- Bottom up parsing:-

→ It is also known as Shift - reduce Parsing.

→ Bottom up parsing is used to construct a parse tree for an input string.

→ In this, the Parsing starts with the input symbol and construct the parse tree up to the start symbol by tracing out the rightmost derivations of string in reverse.

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