

UNIT 6: BOTTOM-UP PARSING TECHNIQUES

We want to incorporate a repetitive sentence into a high-level language. The sentence can be represented by the following regular expression:

repeat (identifier | number) >> sentence⁺ <<

A program consists of at least one statement, where statements can be assignments, conditionals, and loops.

NOTE: The symbols "|" and "+" are part of the regular expressions, the others are part of the language.

It is required:

1. Define the grammar G that would generate valid programs of this programming language. Consider the assignment and conditional statements as terminal symbols of the grammar.
2. Obtain the table of an SLR analyzer from the previous G grammar or an equivalent one that allows an SLR analysis.