ECE 3520 - Digital Computer Design - Dr. Ligon

Formal Grammar
- Formal grammar describes how to form valid strings in a language from an alphabet of symbols.

Chapter 4 minic and parsing
- Parsing is done recursively via recursive descent.

- recusrion can be right recursive or left recursive.

- Derivation tree
  - takes some program source as input, parsing while applying grammar.
  - forms tree that represents symbols in program and program structure.
  - parser will incrementally build tree, then reduce, and repeat

- Cocke-Younger-Kasami (CYK) Parsing Algorithm

- Informally, this algorithm considers every possible substring of the input string and sets $P[l, s, v]$ to be true if the

substring of length l starting from s can be generated from the nonterminal R_v. once all substrings of length 1 have been considered then substrings of length 2 are considered.

- yak is precursor of bison

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- STUDY CYK algorithm. It will be on the test.

Auto grader.

- Term matching, use study guide, take practice test.