

18.1 Code Generation

The purposes of code generation is to actually generate machine code based on the given code

Key issues include

- Correctness
- Efficiency
- Efficiency of the compiled code

To solve these key issues we approach this using **Syntax Direct Translation**

- create a translation function for each syntactic category, e.g. for loops, if-else statements, assignment, expressions
- translation closely follows the syntactic structure of the code
- recursively traverse the parse tree to gather the needed information
- first you must understand exactly what we mean by

Storing Variables

- (a) Store variables in Registers
- (b) Store variables in RAM
- (c) Store Variables in Stack

Note : Majority of this weeks classes was mostly spent going over examples explaining how to complete A9 and A10. Please refer to the official course notes for these examples