

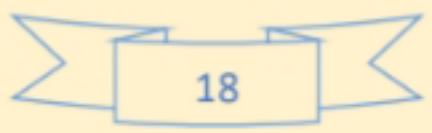
Pascal was first implemented by writing a compiler in Pascal itself. This was done through several bootstrapping processes.

The compiler was then translated “by hand” into an available level language.

Compiler designing phases

The compiler being a complex program is developed through several phases. It. Phase transform the source program from one represent to another. The taste of a compiler can be divided very broadly into two subtasks.

- I. The analysis of a source program.
- II. The synthesis of the object program.

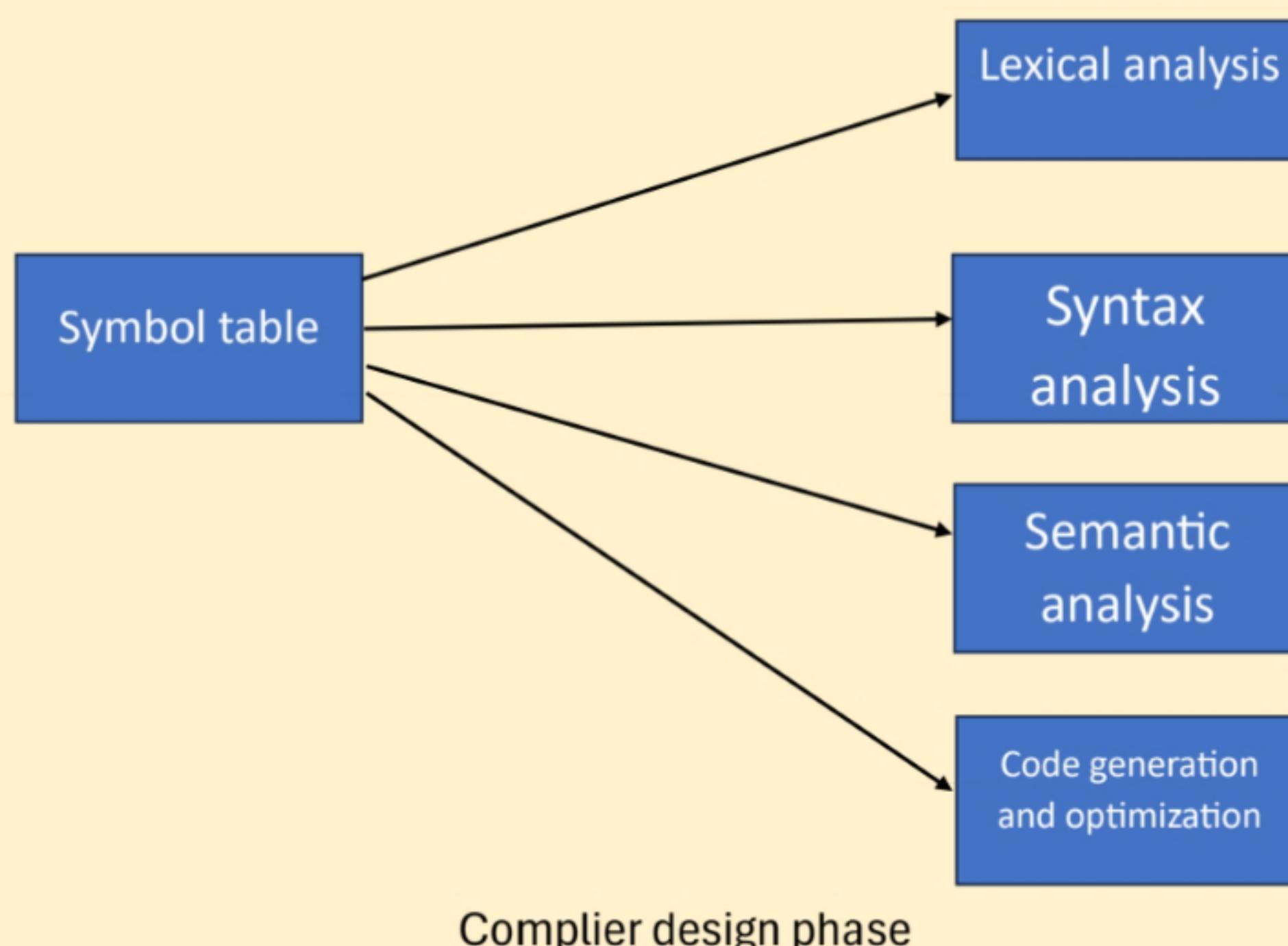


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In the typical compiler, the analysis task consists of 3 phases.

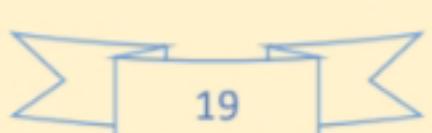
- I. Lexical analysis.
- II. Syntax analysis
- III. Semantic analysis

The Synthesis task is usually considered as a code generation phase, but it can be divided into some other distinct phase, like intermediate core generation and code optimization.



Lexical analysis

Lexical analysis is the first phase of a compiler. Lexical analysis also called a scanning, scans a source program from left to right character by character and group them into token having a collective meaning. It performs two important tasks.



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