

MAULANA ABUL KALAM AZAD
UNIVERSITY OF TECHNOLOGY,
WEST BENGAL



MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY

Course Title-Compiler design

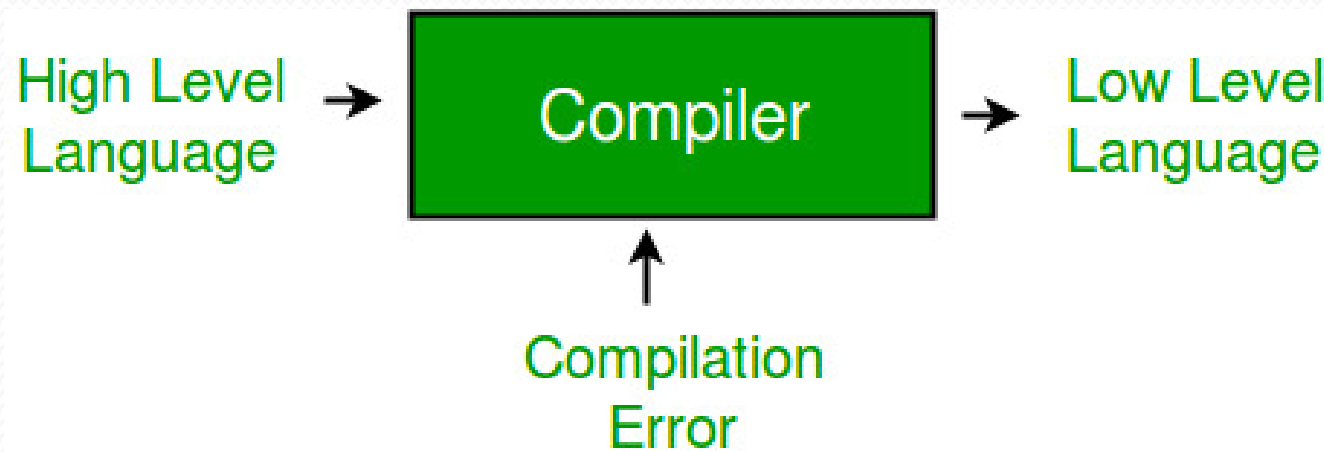
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The **compiler** is software that converts a program written in a high-level language (Source Language) to a low-level language (Object/Target/Machine Language/O's, I's).



Cross Compiler that runs on a machine 'A' and produces a code for another machine 'B'. It is capable of creating code for a platform other than the one on which the compiler is running.

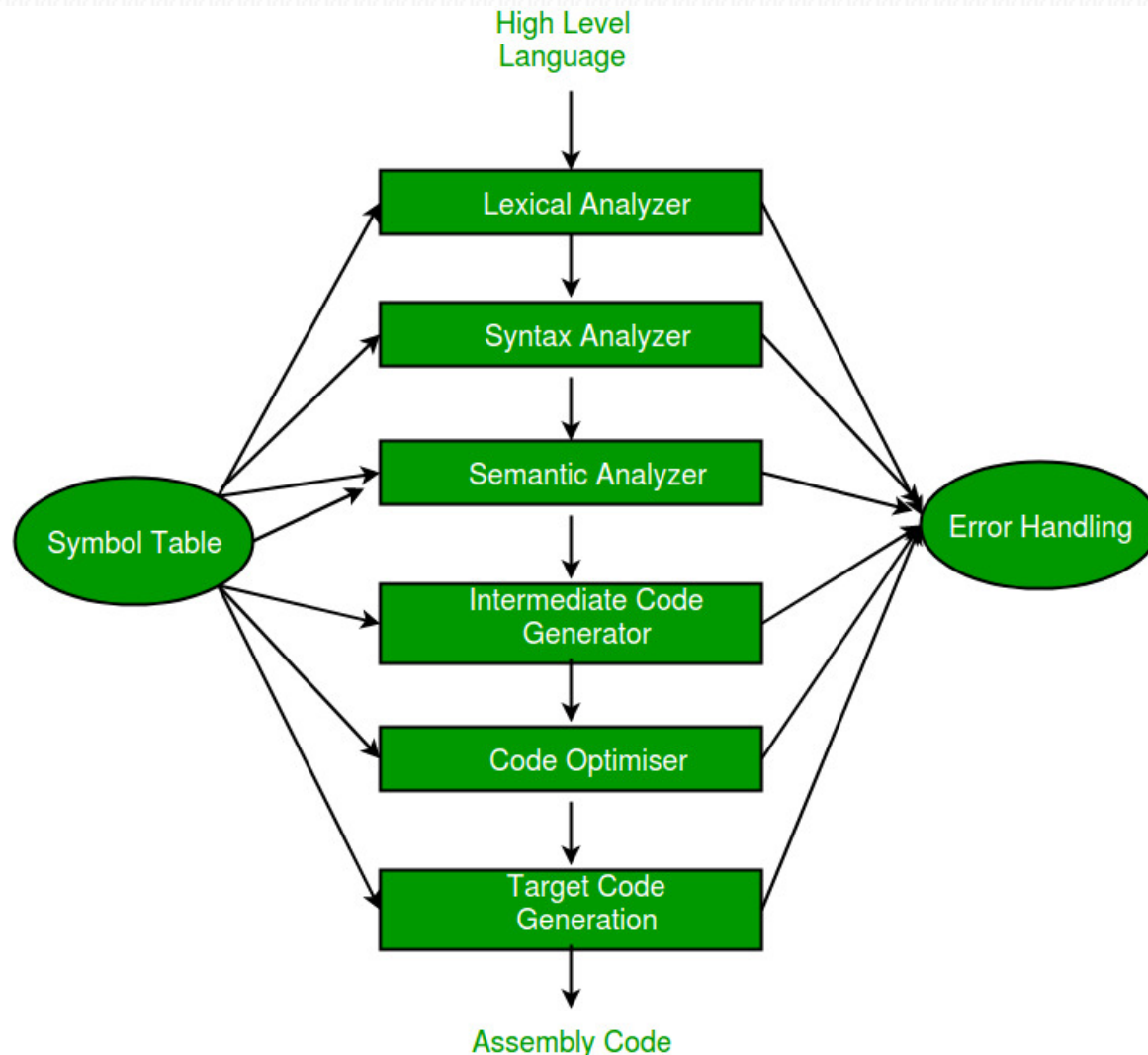
Source-to-source Compiler or transcompiler or transpiler is a compiler that translates source code written in one programming language into the source code of another programming language.

DEFINITION

A translator or language processor is a program that translates an input program written in a programming language into an equivalent program in another language. The compiler is a type of translator, which takes a program written in a high-level programming language as input and translates it into an equivalent program in low-level languages such as machine language or assembly language. The program written in a high-level language is known as a source program, and the program converted into low-level language is known as an object (or target) program. Moreover, the compiler traces the errors in the source program and generates the error report. Without compilation, no program written in a high-level language can be executed. After compilation, only the program in machine language is loaded into the memory for execution. For every programming language, we have a different compiler; however, the basic tasks performed by every compiler are the same.

Phases of a Compiler:

There are two major phases of compilation, which in turn have many parts. Each of them takes input from the output of the previous level and works in a coordinated way.





Thank You