**Short Note on Compiler.**

A compiler is a programme that converts statements written in a programming language into machine language, or "code," that is used by a computer's processor. A programmer often uses an editor to write language statements in a language such as Pascal or C one line at a time. The source statements are contained in the file that is created. The programmer then launches the appropriate language compiler, giving the name of the source statement file.

When the compiler executes (runs), it first parses (or analyses) all the language statements syntactically one by one, and then builds the output code in one or more successive stages or "passes," making sure that statements that refer to other statements are correctly referred to in the final code. The output of the compilation has traditionally been referred to as object code or, in certain cases, an object module.

A compiler executes four major steps:

* **Scanning:** The scanner reads one character at a time from the source code and keeps track of which character is present in which line.
* **Lexical Analysis:** The compiler converts the sequence of characters that appear in the source code into a series of strings of characters which are associated by a specific rule by a program called a lexical analyser. A symbol table is used by the lexical analyser to store the words in the source code that correspond to the token generated.
* **Syntactic Analysis:** In this step, syntax analysis is performed, which involves pre-processing to determine whether the tokens created during lexical analysis are in proper order as per their usage. The correct order of a set of keywords, which can yield a desired result, is called syntax. The compiler must check the source code to ensure syntactic accuracy.
* **Semantic Analysis:** This step consists of several intermediate steps. First, the structure of tokens is checked, along with their order with respect to the grammar in each language. The meaning of the token structure is interpreted by the analyser to finally generate an intermediate code, called object code.