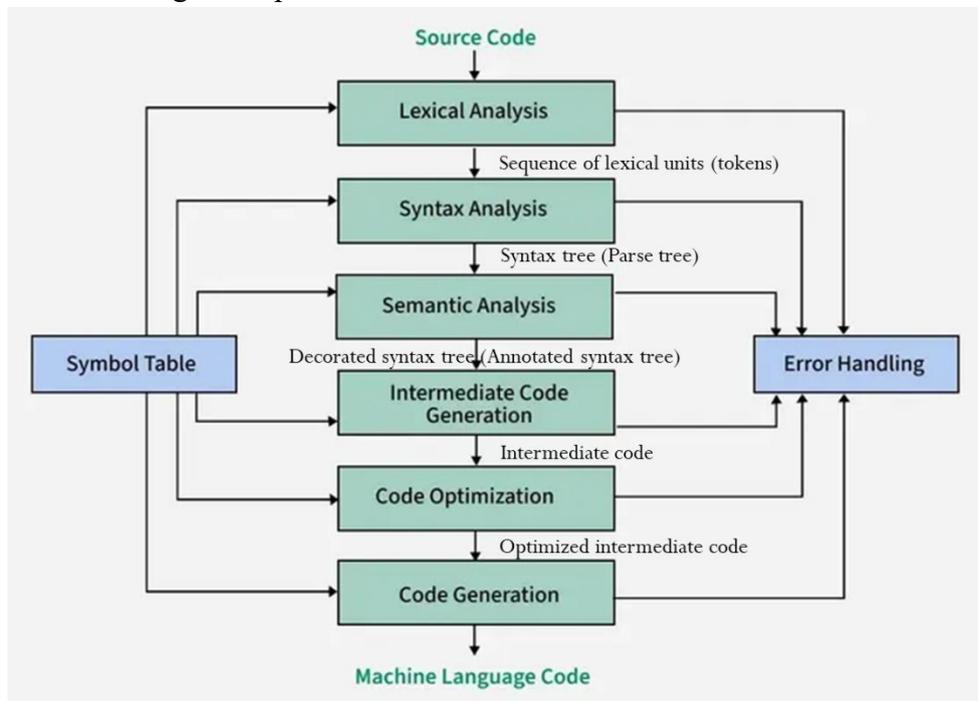


Exersice 1.

- The phases of building a compiler are:



- The two main differences between C++ and Java in terms of compilation are :
 - C++ is platform-dependent, whereas Java is platform-independent.
 - C++ uses only a compiler (C++ is compiled and executed using the compiler, which converts the source code into machine code). Java uses both a compiler and an interpreter. Java source code is compiled into bytecode. The interpreter executes this bytecode at runtime and produces the output

Exersice 2.

- Match the concepts with their definitions.

- | | |
|--------------------------------|--|
| 1) Source language | a) A program that builds a lexical analyzer |
| 2) Assembly language | b) A translator that executes the source program’s instructions one by one |
| 3) Lexical generator | c) High-level programming languages |
| 4) Lexical analysis | d) The language in which the original program is written |
| 5) Interpreter | e) A symbolic representation of machine language |
| 6) C/C++, Java, PHP,... | f) Groups the stream of input characters into lexical units |

Solution:

1) → d)	2) → e)	3) → a)	4) → f)	5) → b)	6) → c)
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Exersice 3.

- Match the concepts with their definitions.

1) GCC

2) Motorola 68000

3) The OCaml language

4) Quadruples

5) HTML

a) Markup language

b) Assembly language

c) Interpreter

d) Compiler

e) Intermediate language

Solution:

1) → d)	2) → b)	3) → c)	4) → e)	5) → a)
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Exersice 5.

For the following block-structured C code, indicate the values assigned to w , x , y , and z .

<pre>int w, x, y, z; int i = 4; int j = 5; { int j = 7; i = 6; w = i + j; } x = i + j; { int i = 8; y = i + j; } z = i + j;</pre>	<pre>int w, x, y, z; int i = 3; int j = 4; { int i = 5; w = i + j; } x=i+j; { int j = 6; i = 7; y = i + j; } z = i + j;</pre>
Program (a)	Program (b)

Solution:

<u>Program (a)</u>	
w	$w=i+j=6+7=13$
x	$x=i+j=6+5=11$
y	$y=i+j=8+5=13$
z	$z=i+j=6+5=11$

<u>Program (b)</u>	
w	$w=i+j=5+4=9$
x	$x=i+j=3+4=7$
y	$y=i+j=7+6=13$
z	$z=i+j=7+4=11$