

# Introduction to Algorithms

- step by step procedure to solve a problem.
- ordered.
- finite, well-defined.

pseudocode

Flow Chart

## Type of Algorithms

### Characteristics of Algorithm

Correctness.  
Efficiency .  
Clarity.  
Finiteness .  
Generality.

Sequential Algorithm

follows a fixed sequence of steps.  
use pseudocode+Flow chart

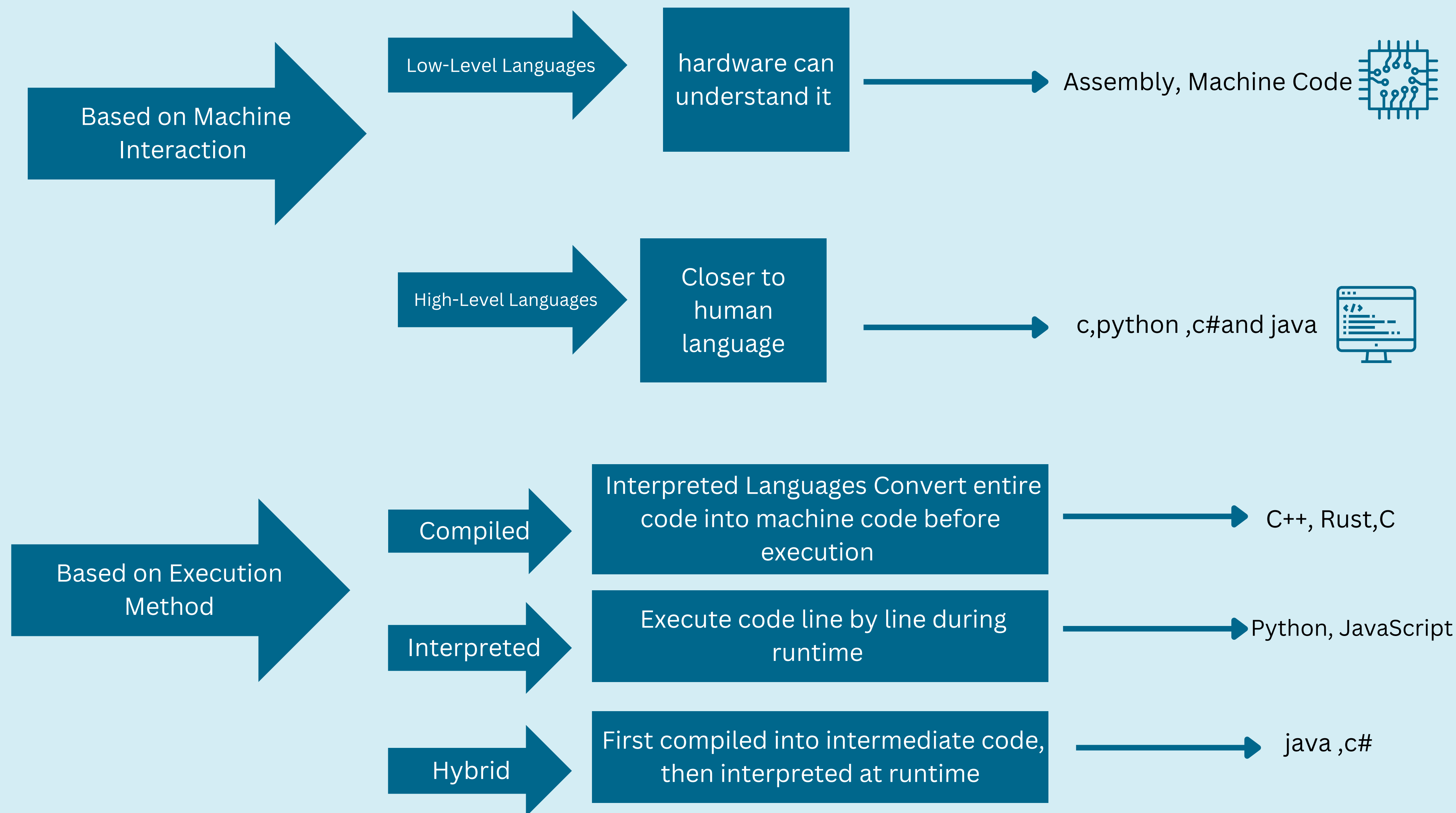
Iterative Algorithm

repeats a process multiple times  
using loops

Recursive Algorithm

calling itself to solve

# Types of programming languages



Compiled Languages	Interpreted Languages
Faster	Slower (line-by-line execution)
Compilation required before run	Compilation not required
Errors detected at compile-time	Errors detected at runtime
Less portable (compiled for specific OS/CPU)	More portable (runs on any system with an interpreter)
Debugging harder	Debugging easier