

Quote of the Day:
"Believe u can and you're halfway there."

PAGE No.	
DATE	/ /

DSA

Introduction to Programming

Types of Languages:

- ↳ Procedural
- ↳ Functional
- ↳ Object Oriented

1. Procedural

Well structured steps and procedures to compose a prgm.
Java, Python, C++

2. Functional

Writing a prgm only in pure function.
Never modify variables.

Reassigning functions name to another (First class Function)
Python, C++

3. Object oriented

Code + Ab Data = Object

Developed to make it easier to develop, debug, reuse and main software.

Java, Python, C++

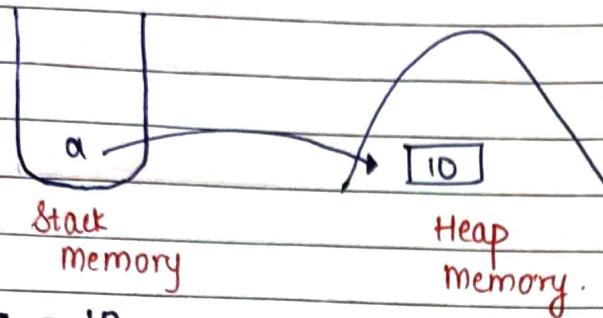
Src code $\xrightarrow{\text{into}}$ machine code

Static v/s Dynamic Languages:

// compile time

Static	Dynamic
Perform type checking at compile time.	Perform type checking at runtime.
Errors show at compile time.	Error might not show till prgm is run.
Declare datatype before you use it.	No need to declare datatypes of variables.
More Control	Saves time in writing code but might give error at runtime.

Memory Allocation



$a = 10$

ref
variable

If the change is made by reference variable to any object the change will be visible to other variables also.

Garbage Collection

The object that has no reference variable would be removed from memory by garbage collection.