

Types of Languages

↓
Procedural

↓
functional

↓
Object Oriented

Procedural.

- Specifies a series of well-structured steps and procedures to compose a program.
- Contains a systematic order of statements, functions, and command to complete a task.

functional.

- Imap only in pure functions. i.e. never modify variables, but only create new ones as an output.
- Used in situations where we have to perform lots of different operations on the same set of data, like ML?

Object Oriented.

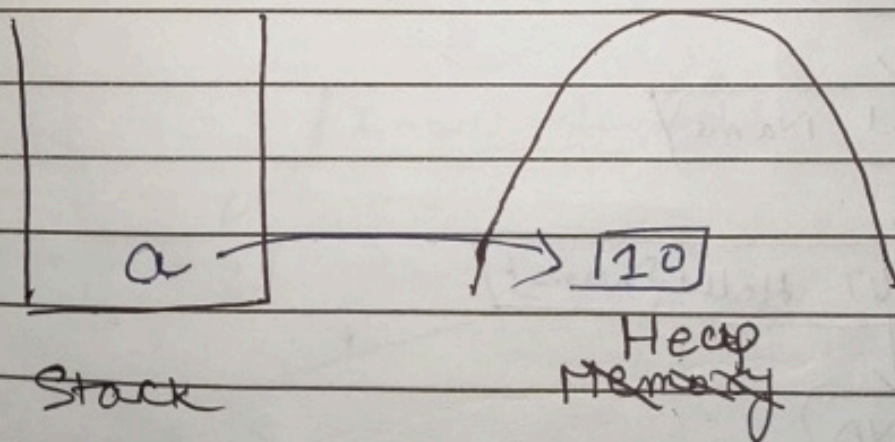
- Revolves around objects.
- Code + data = object
- Developed to make it easier to develop, debug, reuse, and maintain software.

Static Language.

- Perform type checking at compile time.
- Errors will show at compile time.
- Declare datatype before you use it.
- More control.

Dynamic language

- Perform type checking at runtime.
- Error might not show till program is run.
- No need to declare datatype of variables.
- Saves time in writing code but might give error at runtime.



$a = 10 \rightarrow$ object
ref variable \downarrow