

Basics of Python

Pradeep Aryal M.Sc.

Introduction and Application Areas



Python is an interpreted, high-level and general-purpose programming language.

Created by Guido van Rossum and first released in 1991.



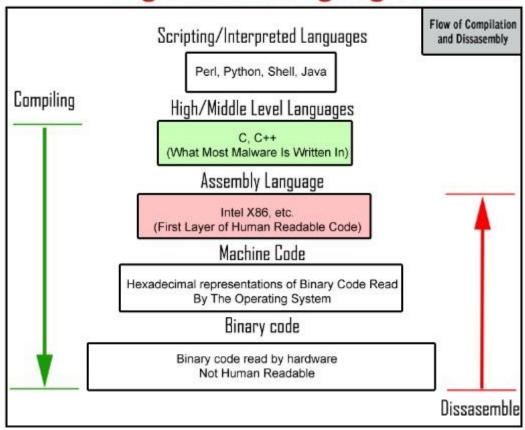
Application that uses python

- Instagram
- Google
- Spotify
- Netflix
- Uber
- Dropbox
- Reddit

Languages Representation



High Level Languages



Choice of Programming Languages



- Web Applications : JavaScript, PHP, Ruby, HTML/CSS, Python
- Mobile Applications: Swift, Java, JavaScript, Objective-C
- Operating Systems: C, C++
- Distributed Systems: Go
- Enterprise Applications: Java, C#, C++, ErLang
- Analytics & Machine Learning: Python, R, Clojure, Julia
- Math & Scientific Computing: Matlab, Python, FORTRAN, ALGOL, APL, Julia, R, C++

Variables, Numbers and Strings



Variables are data values that can change program execution. A **variable** is a memory location. It has a name that is associated with that location.

```
int_num = 10
name = "Lebron James"
real_num = 5.6
```

The technical description of a **String** is: an array of characters. The informal view of a string is a sentence. Strings are almost always written in code as a quoted sequence of characters, i.e., "this is a string."

```
string1 = "Let's play football."

name = "Nami College"

string2 = "Hello"
```