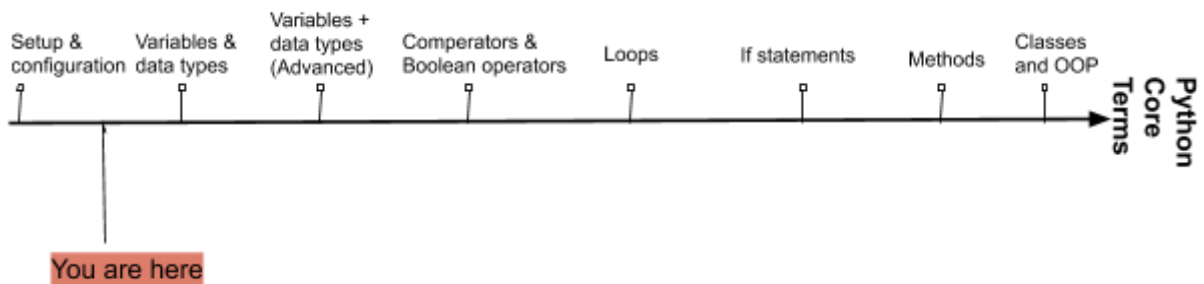




Introduction to Python



Coding convention - What is it and why do we need it?

Coding conventions are a set of guidelines for a specific programming language that recommend programming style, practices, and methods for each aspect of a program written in that language.

These conventions usually cover file organization, indentation, comments, declarations, statements, white space, naming conventions, architectural best practices, etc. These are guidelines for software structural quality.

Software programmers are highly recommended to follow these guidelines to help improve the **readability** of their source code and make software maintenance easier.

Variables & Data Types

A. Variables:

What are variables ?

Variables are used to store information to be referenced and manipulated in a computer program. They also provide a way of labeling data with a descriptive name, by using numbers letters or signs.

Variables in Python vs other OOP languages:

In difference from other Object-oriented programming languages (such as Java for example), in python, variables are **dynamically typed**.

Lets see an example of a string variable:

Python: name = "John"

Java: string name = "John"

As you can see in python we do not declare the type of the variable before it, as in Java.

So let's begin...

String: A string variable will hold zero or more letters, numbers, special characters or the combination of all three.

Also, a string variable could not be manipulated by mathematical actions.

```
number = "5"  
number + 1
```

How can we identify a string variable when we see it ?

A string variable can be recognized by having apostrophes (" ") at the beginning and at the end of it.

Convention of variables:

1. Small letters only
2. If having more than 2 words in the variable name, we put an underscore between the words

Examples :

1. last_name = "Johnson"
2. address = "54 Anderson st."
3. date_of_birth = "04/06/1990"

