Python Essentials | Jan 2021 Batch 1 | Day 1 Overview

DAY 01 AGENDA | Total Duration 1:32:28

- Python
- History and Features of python
- Static and Dynamic
- Compiler and Interpreter
- Class

And, to understand in detail please go through the below TIMESTAMPS

Day 1 | Jan 2021 Batch 1 | LetsUpgrade - Python Essentials

TIMESTAMP for EACH TOPIC:

02:27 - About LetsUpgrade

04:14 - how to attend the class

04:47 - About goodies

05:13 - how to attend the class daily

06:02 - About exams

12:13 - Introductions about Python

14:17 - Static and Dynamic programming

20:05 - compiler and interpreter

22:06 - Why should we choose Python

28:03 - Definition for Python

30:50 - Portable language

33:23 - Object-oriented language

36:49 - Class

37:22 - free and open-source

42:38 - History of Python

46:20 - Interactive cell and environment setup

1:05:18 - Installation of Python

1:13:33 - IDLE

1:27:37 - How to install and use ANACONDA

1:27:16 - JUPYTER notebook

Introduction to Python:

- Python is a programming language. Python is an interpreted, object-oriented, high-level programming language with dynamic semantics.
- It can be used on a server to create web applications. It was created by Guido van Rossum in the late 1980s and released in 1989.

Static and Dynamic programming:

There are two types of programming languages in the IT industry. They are

- Static programming language
- Dynamic programming language

1.Static programming language

JAVA is a static one. It takes several steps to run a program. Like that Many programs are statically typed languages.

PROCESS TO RUN A SIMPLE PROGRAM IN JAVA:

- Take inputs (a and b) Where a and b are declared initially and the values are assigned
- Translator (Convert the source code to binary code.so the machine can understand these values)
- Calculate Target Variable with the given Input Variables.
- Java is statically-typed, so it expects its variables to be declared before they can be assigned values. So we have declared the variable c before assigning value.
- Result.

Example :

```
int a = 9;
int b = 4;
int c;
c=a/b #C = 2.25
println(c) #Output = 2
```

2. Dynamic programming language

Dynamic programming is both a mathematical optimization method and a computer programming method. Python is a dynamic language. The process is very easy to run a program.

PROCESS TO RUN A SIMPLE PROGRAM IN PYTHON:

- Take inputs (a and b)
- Translator (Convert the source code to binary code .so the machine can understand these values)
- Python is dynamically-typed and determines its variables data types based on their values, so the extra line(Declaring step is not required.)
- Result

Example:

```
a=13
b=10
c=a/b
print(c)
```

Compiler and Interpreter:

In JAVA translator is called a ***compiler***, but in python, it is called an ***interpreter***. Inside an interpreter, the compiler is also there. The purpose of the compiler is to convert the source code to binary code.

Portable language:

Python language is also a **portable language**. For example, if we have **python** code for windows and if we want to run this code on other platforms such as Linux, Unix, and Mac then we do not need to change it, we can run this code on any platform.

Class:

The object is an instance of a class whereas class is a blueprint. A class is a template for objects. Class is a group of objects.

🚀 **Materials for the day have been uploaded in the drive. There is no assignment for today's session.**

Attendance Form: https://forms.gle/uWELgg6ojG78ZRJXA

Assignment Submission Form: https://forms.gle/NC2UA5pHGXveETbu7

Materials Details: https://drive.google.com/drive/folders/1YqF2k6xZHAIeZMZpe5LEbZNm6xYb1d8K?usp=sharing

---

Batch 1 | All Details | Python Essentials JAN 2021