Programming in Python

Instructors:

Shubham Sharma:

Having 3+ years of DataScience and Web Development expertise, proficient in data modelling, data preprocessing as well as scripting languages Python and PHP. I've also worked as a mentor and a freelancer. Machine Learning and Natural Language Processing (NLP) are two of my areas of expertise.

Curriculum:

Introduction to Python

• What is Python?

• History of Python

• Features of Python

• Applications of Python

• Why should you learn python?

System Setup

• Colab

Python Basics

• What is IDE?

• Why IDE is used?

• Advantages of using an IDE

- Offline editor(Python IDE)

- Online editor (https://www.onlinegdb.com/) Linux distribution

- Execute your first python program (print "Hello world")

- Python Indentation

- Comments & Statements

- Keywords & Identifiers

- Types of errors In Python

Python Variables

- What is Variables?

- Creating Variables

- Rules for creating variables

- Type function

- Type Casting

- Single Variable Name & Multi Variable Name

- Unpack collections

- Changing values of variable

- Deleting variable

- Practical:- Print book names using variables

Data Types

- What are Data Types?

- Numeric data type

- Sequence data type

- Boolean data type

• Set

• Dictionary

• Practical :- Creating a Hash table for students details

Python Operators

• Relational Operators

• Relational Operators with Strings

• Chaining of Relational Operators

• Logical Operators

• Special behaviour of == and! =, ===

• How logical operators work with boolean types?

• How logical operators work with Non-Boolean types?

• Introduction to Bitwise Operators

• Six types of Bitwise Operators

• Assignment Operators

• Various types of assignment operators

• Compound Operators

• Identity Operators

• Membership Operators

• Precedence and Associativity

• Boolean Operators

Python Strings

• Defined a Single line string

• Defined a Multiple Line string

• Slicing

• Modify String

• String Concatenation

• String Formatting

• Escape Character

• String Methods

Python Programs

• How to print Palindrome Number ?

• Reverse a String

• Count Vowels in a given string

• Counts words in a given string

• Fibonacci series

• Armstrong number

• Find the number of Prime numbers present in the list of integers.

• Leap year

• Wish a marriage anniversary to your mom dad using Python / Greetings messages.