

**Python Crash Course for Beginners syllabus** 

**Class Room or online Training** 

Start From: 3rd April to 14th April
1hr Daily (Mon – Fri)

Timings 5pm to 6pm and 6pm to 7pm



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## Introduction to python

- What is python
- The Birth of Python
- Features of Python
- Versions of Python
- Python distributions

## Introduction to script

- What is script
- What is program
- Types of script
- Types of programming languages

# The Python Environment

- Installation of Python on windows, MAC, LINUX
- Setting path for Python
- Python Documentation
- Getting Help
- Python Command line Shell ,Editors and IDE's
- Basic Syntax
- Running Python Script on WINDOWS
- Running Python Script on LINUX
- Working with IDLE

#### **Getting Started**

- Keywords v Data Types
- Static Data Types versus Dynamic Data Types
- Fundamental Data Types
- Collection Types
- Number systems
- Mutable objects versus Immutable Objects
- Variables
- Naming Conventions
- Print(),Type() and Id() Functions
- Input() and raw\_input() functions
- Type Conversion functions

#### **Operators**

- Arithmetic Operators
- Relational Operators
- Logical Operators
- Assignment Operators
- Short Hand Assignment Operators
- Bitwise Operators
- Membership Operators
- Identity Operators
- Precedence of operators
- Evaluating expressions

#### Flow Control

- About Flow Control
- Elements of flow control
- Block/Clause
- Conditional Statements
  - > Simple if
  - > if...else,
  - > if...elif...else
- Looping Statements
  - > while loop
  - > while ... else
  - > for loop
  - >for ...else
  - > using range() in for loop
  - > working with infinite loops and nested loops
- Break statement
- Continue statement
- Pass statement

#### **String Handling**

- What is String?
- Single-quoted string literals
- Triple-quoted string literals
- String Indexing
- String Slicing
- Working with String Functions
- Working with String Methods
- Reversing a string
- String multiplication and concatenation

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#### Collections

#### List:

- Lists are mutable
- Getting to lists
- List indices
- Traversing a list
- List operations
- List slices
- List methods
- Map, Filter and reduce
- **Deleting elements**
- Lists and strings

#### **Tuple:**

- Advantages of Tuple over List
- Packing and Unpacking
- **Comparing Tuples**
- Creating nested tuple
- Using tuples as keys in dictionaries
- Deleting tuples
- Slicing Of Tuple
- Tuple Membership Test
- Built-in function with Tuple

#### Set:

- How to create a set?
- **Iteration Over Sets**
- Python set Methods
- Python Set Operations
  Union Of sets
- Built -in Functions with set

#### **Dictionary:**

- How to create a dictionary?
- Python Hashing?
- Python Dictionary Methods
- **Copying Dictionary**
- Updating dictionary
- Delete keys from the dictionary
- Dictionary items() Method

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#### **Functions**

- Defining a function
- Calling a function
- Function Parameters
- Types of parameters
  - > default parameters
  - > non default parameters
  - > key word arguments
  - > non key word arguments
  - > arbitrary arguments
- Return statement in functions
- Handling return values
- Global variables and Local variables
- Scope of global variables and local variables
- Passing collections to a function

# Will Provide

- 1. Class room running Notes
  - 2. Soft copy of Notes
  - 3. Lab Assignments (Daily)
- 4. Weekends if they have any extra droughts

Please do contact on my Mobile or Email

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