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# **Python Syllabus**

# **Core Python**

#### Introduction

- ✓ History
- √ Features
- ✓ Setting up path
- ✓ Working with Python
- ✓ Basic Syntax
- √ Variable and Data Types
- ✓ Operator

#### **Conditional Statements**

- √If
- ✓ If- else
- ✓ Nested if-else

## Looping

- **√** For
- **√** While
- ✓ Nested loops

#### **Control Statements**

- **√** Break
- √ Continue
- ✓ Pass

### String Manipulation

- ✓ Accessing Strings
- ✓ Basic Operations
- ✓ String slices
- ✓ Function and Methods



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#### Lists

- ✓ Introduction
- ✓ Accessing list
- ✓ Operations
- ✓ Working with lists
- √ Function and Methods

#### **Tuple**

- ✓ Introduction
- ✓ Accessing tuples
- ✓ Operations
- ✓ Working
- ✓ Functions and Methods

#### **Dictionaries**

- ✓ Introduction
- √ Accessing values in dictionaries
- ✓ Working with dictionaries
- ✓ Properties
- √ Functions

#### **Functions**

- ✓ Defining a function
- ✓ Calling a function
- ✓ Types of functions
- ✓ Function Arguments
- ✓ Anonymous functions
- ✓ Global and local variables

#### Modules

- ✓ Importing module
- ✓ Math module
- ✓ Random module
- ✓ Packages
- ✓ Composition



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### Input-Output

- ✓ Printing on screen
- √ Reading data from keyboard
- ✓ Opening and closing file
- ✓ Reading and writing files
- √ Functions

## **Exception Handling**

- ✓ Exception
- ✓ Exception Handling
- ✓ Except clause
- √ Try ? finally clause
- ✓ User Defined Exceptions

# **Advance Python**

### OOPs concept

- ✓ Class and object
- ✓ Attributes
- √ Inheritance
- ✓ Overloading
- ✓ Overriding
- ✓ Data hiding

### Regular expressions

- ✓ Match function
- ✓ Search function
- ✓ Matching VS Searching
- ✓ Modifiers
- ✓ Patterns

#### **CGI**

- ✓ Introduction
- ✓ Architecture



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- ✓ CGI environment variable
- ✓ GET and POST methods
- ✓ Cookies
- ✓ File upload

#### **Database**

- ✓ Introduction
- ✓ Connections
- ✓ Executing queries
- ✓ Transactions
- ✓ Handling error

### Networking

- ✓ Socket
- ✓ Socket Module
- ✓ Methods
- ✓ Client and server
- ✓ Internet modules

## Multithreading

- √ Thread
- ✓ Starting a thread
- ✓ Threading module
- √ Synchronizing threads
- ✓ Multithreaded Priority Queue

### **GUI Programming**

- ✓ Introduction
- √ Tkinter programming
- ✓ Tkinter widgets