

# Base 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

## 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

## 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
- 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