



Duration: Six Weeks

Faculty : Mr Sai Kumar, Having 10+ Yrs Experience in IT

- **Online Classes are also available**
- **Recorded class will be given if you miss any day**
- **interview tips and quiz at end of every module**

Course Content:

BASIC

Lesson 1: Introduction

- General Introduction to Python
- Installation of Python
- Python Shell and Editor

Lesson 2: Data Types and Variables

- Integer
- String
- Boolean Values

Lesson 3: Sequences, Iteration and String Formatting

- While Loop
- For Loop, Range() function
- Break, Continue, exit
- Flow Controls: If-else, If-elif-else
- Infinite Loops

Lesson 4: Lists, Dictionary, Tuples and Set:

We teach everything about Python lists, tuples, dictionary and sets: how they are created, slicing of a list, adding or removing elements from them and so on.

Methods used in are explained with sample programs

1)keys 7)append 13)sort

2)extend 8)insert 14)copy

3)values 9)remove

4)items 10)clear

5)get 11)index

6)setdefault 12)count

Lesson 9: Regular Expressions

A regular expression is a special sequence of characters that helps you match or find other strings or sets of strings, using a specialized syntax held in a pattern. Regular expressions are widely used in UNIX world.

we cover Regular Expression Patterns searching, greedy characters, escape sequences and Modifiers with example programs.

Lesson 6: Reading and Writing Files

This chapter covers all the basic I/O functions available in Python. When you're working with Python, you don't need to import a library in order to read and write files. It's handled natively in the language.

we cover open(), read(), Write(), close(), readLine(), seek(), tell(), mkdirs(), getcwd()so on and so forth with example programs.

Lesson 5: Strings:

Strings are amongst the most popular types in Python. We can create them simply by enclosing characters in quotes. Python treats single quotes the same as double quotes.

we cover Methods : lower(), upper(), title(), isalpha(), isdecimal(), isspace(), join(), split(), rjust(), ljust(), strip(), lstrip(),startswith(), endswith(), isdigit(), maketrans(), replace(), max(), min(), replace(), index(), rindex(), find(), rfind(), swapcase(), zfill()

Modules: re, re.compile(), re.search(), format()

Lesson 8: Functions and Debugging

Functions:

A function is a block of organized, reusable code that is used to perform a single, related action. Functions provide better modularity for your application and a high degree of code reusing.

We cover basic syntax, defining the function, calling a function with sample programs and fine examples.

Debugging:

Python provides two very important features to handle

any unexpected error in your Python programs and to add debugging capabilities.

We cover `StandardError`, `ZeroDivisionError`, `SyntaxError` and `TypeError` with example programs

Lesson 7: Lambda Functions -- functions as objects

Lambda functions are called anonymous functions where we can use `lambda` keyword to create anonymous functions. We explain the lambda functions with built in functions like:

1) `filter()`

2) `map()`

Lesson 8: Object Oriented Programming

We explain Procedure and Object Oriented, Code Reusability, Object Oriented Concepts, What is Class and Object, OOPS Features : Encapsulation, Polymorphism, Abstraction, Inheritance, Types of Inheritance, what is constructor, Passing parameters to Constructors, Initializing Objects, class method, static variable and methods

Lesson 10: Generators and Decorators

We cover purpose of generators, creation of generator and decorators and how are they different from normal functions.

Advanced Python for:

Database:

We cover Importing the API module, Acquiring a connection with the database, Issuing SQL statements and stored procedures and Closing the connection using MySQLdb.

Web Scrapping:

We cover Web browser Module, Downloading from the Web with the Requests Module, Parsing HTML with the BeautifulSoup Module, Controlling with the browser, Real Webpage Extraction, Walking the tree, HTML Parsing,

Graphical User Interface(GUI) Automation:

Controlling the Keyboard from Python, Screenshots and Image Recognition, checkbox, Multi section, Dialogue box, Controlling the Mouse from Python

Networking and Email:

We cover creating SMTP objects for creating and sending emails, Parsing Extensible Markup Language(XML) With SAX API, working with HTML, Web Page Structure, Navbar, comments, footers and divs, parsing paragraph data