



PYTHON FOR AUTOMATION





Learnbay provides practical training and hands on project experience for working professional in python. Our trainers are highly experienced and expert in their domain

Who Should Attend Python Training:

- Experienced Professional who want to learn Automation through Python .
- *Network professional* who wants to start *Automating* network tasks using Python
- Software developers, Project Managers, Software testing professionals.
- Anyone who has deep desire to learn Python.

1. Practical training and hands on

Real Time Project Implementation With Assignment. Course has many mini *projects* and minor projects with tons of assignment and exercises.

2. Expert Instructor

Instructors from premier institute like IIT Hyderabad, BITS Pilani and tier one product based MNC

3. Placement Assistance:

Interview Guidance And Placement assistance for job seekers.

Course Duration:

35 Hours of Live **Classroom** Training (Weekend Class)

20 Hours Assignment

6 Hours Project

Course Outline

1. Installing & Running Python

Python 2.7 vs Python 3
Local Environment Setup
Installing Python on different Platforms(Windows and Linux)
Python Interpreter and Python Interactive Shell
Python IDE(Pydev,Pycharm,VIM)

2. Introduction

Python Overview
History Of Python
Cpython,Jython,PyPy
Python Features
Areas Of Application of Python
Understanding More About Python
Writing your First Python Program
Interactive Mode Programming
Script Mode Programming
Dir and help: Getting help from the Python interpreter.

3. Python Syntax ,Keywords and Operators

Python Identifiers
Various Operators and Operators Precedence
Reserved Words,Lines
Multi-Line Statements,Quotation
Command Line Arguments
Python Input/Output:Using the Print Function
Getting Input from User
Basic Data Types And Variables

4. Expressions, Statements, Variables

Working With Numbers
Working With Booleans
Working with Strings
String types and formatting
Program to find duplicate characters in a String.
Program to reverse a string
Program to check if String is Palindrome
program to remove a newline in Python
Mini Project :
Dice Rolling Simulator

5. Python Data Types:

List,Tuples,Dictionaries
Python Lists,Tuples,Dictionaries
Accessing Values,Basic Operations
Indexing, Slicing, and Matrixes
Built-in Functions & Methods
Exercises on List,Tuples And Dictionary
Remove Duplicate from Lists
Program to find the index of an item of a tuple,Python program to convert a list to a tuple,Python program to reverse a tuple
program to convert a tuple to a dictionary
Mini Project:
Hangman game : “Guess the word” game

6. Making Decisions – if Statements

The Relational Operators
The Logical Operators
Simple if Statement,if-else Statement
if-elif Statement
More Advanced If, Elif & Else Processing

7. Loop Control

Introduction To while Loops
Count-Controlled while Loops
Event-Controlled while Loops
Using continue, Using break
Introduction To for Loops
For loops with files, list, tuples and dictionaries

Mini Project:

Decode the SMS: Translate or Decode a message based on abbreviation

8. Iterators

Understanding Iterators
Using iter And next
Iterators And Dictionaries
Other Iterators

9. Functions And Scopes

Introduction To Functions – Why
Defining Functions Calling Functions
Functions With Multiple Arguments
Predicate Functions, Recursive
Functions, Object, Generators, Decorators,
Anonymous Functions, Anonymous
Functions, Higher-Order Functions
Scope , Global Scope, Local Scope
, Nested Scope

10. Modules

Using Built-In Modules
User-Defined Modules
Module Namespaces

11. File I/O

Printing to the Screen
Reading Keyboard Input
Opening and Closing Files
open Function, file Object Attributes
close() Method , Read, write, seek
Rename, remove,
Mkdir, chdir, rmdir

Mini Project:

Anagrams in File

12. Error And Exceptional Handling

Exception Handling, Assertions: The
assert Statement
What is Exception, Handling an
exception
The except Clause with No Exceptions
, the try-finally Clause
Argument of an Exception, Raising an
Exceptions, User-Defined Exceptions

13. Classes And Objects

Overview of OOP-Creating Classes
Constructor and destructor, Static and
instance variable
Creating Instance Objects
Built-In Class Attributes, Destroying
Objects
Class Inheritance, Overriding Methods
Base Overloading Methods
Overloading Operators, Data Hiding

14. Regular Expression

Matching and Searching- match() and search() Functions
Search and Replace
Regular Expression Modifiers
Regular Expression Patterns
Non greedy repetition
Backreferences, Anchors
Automation with regular expression

Exercise:

Validate email address

Validate web address

Processing credit card numbers

15. Logging And Debugging

Logging — Logging facility for Python
Logger Objects, Logging Levels
Creating Log files
Python debugger- pdb

16. Python Network Programming

Networking Basics, What is Sockets?
TCP vs UDP, Server Socket Methods
Client Socket Methods
General Socket Methods, Socket Server Module, Python networking with Telnet, Python networking with SSH
Telnet and SSHv2 router configuration
Python networking with SNMP
Python networking with *Scapy*.

Mini Project:

[Chat Application](#)

[Ping Monitor](#)

17. Multithreading

Overview of Threading model
Properties of Threads
Creating Thread Using Threading Module
Using queue with threads
Synchronizing Threads

18. Project and Certificate