LEARNBAY

PYTHON PROGRAMMING

Course Features

- **Course Features**
- Online And Classroom data science training in Bangalore by industry experts.
- Classes with 40% theory and 60% hands-on with Real world examples
- Trainers having more than 8+ years of experience
- Practical Approach With Mini Projects And Case studies.
- Job Assistance And Placement Support After end of Course
- Certificate Provided at the end of course.

- **Who Should Attend:**
- Those who want to become master in **Network Automation/AWS and Want to learn Python For Data Science.**
- *Network Professional* Wanted to learn **Network Automation**
- System Admin/AWS Professional who wants to learn **AWS With Python(BOTO Framework)**
- Professional Who wants to Learn **Data Science** Modules in Python.
- Freshers/Experienced Professional,Managers,IT professional.

Duration Of Course - 7 Weeks Course -Weekend Only
(2.5 Hours Saturday And Sunday) - 35 Hours Course

Course Fee: RS. 18,000/-

BASIC AND ADVANCE PYTHON PROGRAMMING

1. Python Programming Basics
Installing Jupyter Notebooks
Python Overview
Python 2.7 vs Python 3
Python Identifiers
Various Operators and Operators Precedence
Getting input from User,Comments,Multi line
Comments.

2. Python 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
MultiLine 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
Builtin 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,ifelse Statement
ifelif Statement
More Advanced If, ElIf & Else Processing

7. Loop Control
Introduction To while Loops
CountControlled while Loops
EventControlled 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

Course Content

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,HigherOrder Functions
Scope ,Global Scope,Local Scope
,Nested Scope

10. Modules
Using BuiltIn Modules
UserDefined Modules
Module Namespaces ,Hands-on on Sys
And OS Module

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 tryfinally Clause
Argument of an Exception,Raising an
Exceptions,UserDefined Exceptions

13. Classes And Objects
Overview of OOPCreating Classes
Constructor and destructor,Static and
instance variable
Creating Instance Objects
BuiltIn 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

OPTION 1: For Network Professionals

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
Netwoking Project

OPTION 2: For AWS/Devops Professionals

Managing AWS Services Using Python (BOTO SDK):
Introduction To BOTO3
Installation And Configuration
Setup **BOTO3**
Configure Virtual Server Using BOTO3
Working with Object Storage(S3)
Auto Scaling Using BOTO3 - How to setup
Configuration of Dataabse instance using BOTO3
MAnage Route53 Using BOTO

OPTION 3: For Data Science Enthusiastic s

Numpy
Introduction to Numpy. Array Creation,Printing Arrays
Basic Operations- Indexing, Slicing and Iterating
Shape Manipulation - Changing shape,stacking and spliting of array
Vector stacking

Pandas And Matplotlib
Introduction to Pandas
Importing data into Python
Pandas Data Frames,Indexing Data Frames ,Basic Operations With Data frame,Renaming Columns,Subletting and filtering a data frame.
Matplotlib -
Introduction,plot(),Controlling Line Properties,Working with Multiple Figures,Histograms

* Projects And Case Studies
*Certificates On successful Completion of Project .
*Resume Preparation Tips
*Interview Guidance And Support
*Job Support And Placement Assistance

COURSE FAQ

1. What are the profiles of Trainers?
Our Trainers have relevant industry experience and are working in MNC in Python Domain

2.How many Case studies and Projects are covered in the course?
Course has multiple case studies and mini Project.Our course is designed by industry experts.Course features many real time problems.Please refer course content for more details.

3. Do i Need to carry my own laptop?What the the softwares required?
Yes,You need to carry your own laptop.To start with ,You need to install PYTHON in your system.
Both Of these are open source and in first class,trainer will help you to setup the environment in your system.

4. Can i Attend a Demo Session before enrolling for the course?
Of course,You can attend a Free live Demo Session before enrolling for the Course.

5. Are the session Online or Classroom?
We provide both live Online and classroom session.You can opt for online or classroom based on your convenience.

6. Will i Get Class Recording if i Enroll for Classroom Session?
Our live Classroom Sessions are recorded and after the session ,Class recording will be shared to you.

7. Is there any discount available?
We do provide a group discount of 10% if you are joing in group.Also ,There are several Promotions/Offer available.Please contact our support for more details.