

Python Programming Course Syllabus

Syllabus:

Getting Started:

- o What is Python?
- o Comparison of Python with other languages and Salient feature of Python
- o Execution model of Python o User Domains for Python
- o Industries using Python
- o Job Trends

Introduction:

- o Installing Python
- o Python Installer
- o Python 2.7 v/s Python 3.7 o Anaconda
- o Indentation in Python o Editors
- 1. Data Types and Variables
- 2. Numbers
- 3. Comments in Python
- 4. Strings
- 5. List
- 6. List and String
- 7. Tuple
- 8. List and Tuple
- 9. Problem Discussion and Interview Questions Discussion on the topics Numbers, String, List and Tuple
- 10. Set
- 11. Comparison of List, Tuple and Set
- 12. Dictionary
- 13. Comparison of List, Tuple and Set
- 14. Problem Discussion and Interview Questions Discussion on the topics List, Tuple, Set and Dictionary
- 15. Assignment 1 Based on Real time Problem
- 16. Quiz based on Interview Question discussed.
- 17. Control Structure
- 18. Looping
- 19. Basic Functions
- 20. Advance Functions continued
- 21. Problem Discussion and Interview Questions Discussion on the topics Conditional Statement, Function
- 22. Assignment 2 Based on Real time Problem

23. Basic I/O
24. File handling
25. Problem Discussion and Interview Questions Discussion on the topics I/O, File Handling
26. Assignment 3 Based on Real time Problem
27. OOPS Concept
28. OOPS Implementation
29. Modules
30. Problem Discussion and Interview Questions Discussion on the topics Modules, Exception Handling, Classes
31. Assignment 4 Based on Real time Problem
32. Advance Concept on Data Structures
33. Lamda Function
34. Regular expression
35. Logging in Python
36. Multithreading in Python
37. Unit testing in Python
38. Numpy
39. Pandas
40. Command Line Argument
41. Standard Modules

Automation with Python

1. Introduction to Automation with Python
2. Introduction to Web Automation
3. Selenium Webdriver
4. Locators
5. CSS & Xpath
6. Automation GUI, Keyboard and Mouse Element
7. Webscraping
8. Keeping Time, Scheduling Tasks and Launching Program
9. Automate Email and Text Message
10. Working third party modules
11. Schedulers

Real Life Apps

1. A program that returns definitions of English words
2. A program that blocks access to distracting websites
3. A web map visualizing volcanoes and population
4. A portfolio website
5. A desktop graphical program with a database backend
6. A webcam motion detector
7. A web scraper of real estate data
8. An interactive web graph
9. A database web application
10. A web service that converts addresses to coordinates