Python Course

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Python is a totally free language to download, use, and code. Its commands are mostly in simple English. This makes it easy to remember and write commands. The code is readable and with a little knowledge, a developer can learn many things just by looking at the code.
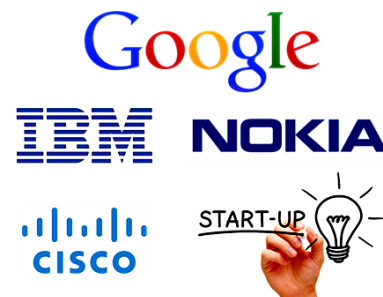
Why learn Python ?

1. First step in Programming :

- *Python can be your starting point into the programming domain.*
- *Python learning need no prior programming or scripting skills.*
- *Python helps in becoming fully stacked programmers.*
- *Python's wide range of functionalities allows implementation of complex applications with ease.*

2. Excellent Job Opportunities :

- *Big corporations like Google, Yahoo!, Disney, Nokia, and IBM all use Python.*
- *Python had the largest year-on-year job demand growth.*
- *Python is the ideal solution for start-ups.*
- *Python allows you to code fast, building complex applications with minimum lines of code that are 5 times less than Java and 10 times less than C++.*

3. Python on Raspberry Pi :

- *Raspberry Pi with Python as programming language helps build robots, radios, arcade machines, even cameras.*
- *Developing DIY (do-it-yourself) projects using Python can be a rewarding experience enabling you coming up with innovative ideas and gadgets.*

4. Artificial Intelligence and Machine Learning :

- *With numerical computation engines such as NumPy and SciPy, Python is preferred language for computer science research., particularly related to Artificial Intelligence (AI) , and Machine Learning (ML)*
- *Given the flexibility of the language, its speed, and the machine learning functionality, Python is expected to dominate the AI / ML landscape*

Course Contents *(details in next page)*

- Introduction to Python
- Data Types , Collection data Types
- Control Structures , Functions , Modules
- Object-Oriented Programming
- File Handling
- Debugging, Testing, and Profiling
- Processes and Threading
- Networking
- Database Programming
- Regular Expressions
- Introduction to GUI Programming

Training method , Approach

- On-line sessions covering concepts, details, example scripts and exercises.
- Sessions run by expert with over 36 years of Industry and training experience
- Hands on scripting practice to consolidate your knowledge
- Study material / Notes for every session
- Assignments for practice
- Offline support thro email, WhatsApp
- Regular assessments to check training effectiveness

Training Duration

- 40 hrs.

For more details :

- Visit : https://www.vigven.com/browse/training-programs
- Or post a message to : training@vigven.com

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Python Course

Course Contents

1. Python basic Programming
- Download and Install Python on all major platforms
- Create and Execute Simple Python programs
  - Data Types
  - Object References
  - Collection Data Types
  - Logical Operations
  - Control Flow Statements
  - Arithmetic Operators
  - Input / Output

2. Data Types
- Identifiers and Keywords
- Integral Types (Integers , Booleans)
- Floating-Point Types (Complex, Decimal   numbers)
- Strings
  - Comparing , Slicing , striding Strings
  - String Operators and methods
  - String formatting
  - Character encodings

3. Collection data Types
- Sequence Types (Tuples, Lists)
- Set Types (sets, Frozen Sets)
- Mapping Types (Dictionaries)
- Iterating and Copying Collections

4. Control Structures and Functions
- Control Structures (Branching, Looping)
- Exception Handling
- Custom Functions
  - Names , Docstrings
  - Argument, parameter Unpacking
  - Accessing Variables in the Global Scope
  - Lambda functions

5. Modules
- Modules and Packages
- Python's Standard Library
  - String handling
  - Command line programming
  - Mathematics, Numbers. Times, Dates
  - Algorithms
  - File formats, encoding, Directory handling
  - Networking and Internet programming

6. Object-Oriented Programming
- The Object-Oriented Approach
- Custom Classes
- Custom Collection Classes

7. File Handling
- Writing and Reading Binary Data
- Writing and Parsing Text Files
- Writing and Parsing XML Files
- Random Access Binary Files

8. Advanced Programming Techniques
- Further Procedural Programming
- Further Object Oriented Programming
- Further Style Programing

9. Debugging, Testing, and Profiling
- Debugging
- Unit Testing
- Profiling

10. Processes and Threading
- Using the Multiprocessing Module
- Using the Threading Module

11. Networking
- Creating a TCP Client
- Creating a TCP Server

12. Database Programming
- DBM Databases
- SQL Databases

13. Regular Expressions
- Python's Regular Expression Language
- The Regular Expression Module

14. Introduction to GUI Programming
- Dialog-Style Programs
- Main-Window-Style Programs
- PySide—QT

Trainer — Profile

Samba Murthy (Samba) is a seasoned professional with over 36 years of experience of working with a wide range of technologies which includes RF/ MW, Telecom, Light wave, and Networking.

Samba has the unique experience of successfully delivering professional services / projects in pre-sale / post sale, product management and in Engineering departments. The services offered by Samba include Designing Test Solutions, Test Automation using Python, Perl, Tcl, Visual Basic languages. Samba has also developed several customized Test Automation Frameworks. Samba worked on the products developed by reputed organizations like Cisco Systems, IXIA, Spirent, Riverbed, Agilent Technologies, Think RF, Rhode & Schwartz etc. who all are leaders in their respective areas

Having worked in technically intensive tasks all through his career, Samba has excellent skills in transferring his knowledge to others. As a result, Samba continuously engaged himself in conducting technical training courses for both external clients and internal employees in all the organizations he worked. The clients include Telecom service providers, NEMs, Manufacturers, Educational Institutes, and Aero-Space-Defense establishments.

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