

UTILIZATION OF PYTHON PROGRAMMING

- **Python for System Engineers** –Python programming plays important role in system admin thus learning python is must for programming language for system engineers. System administration job is challenging and need powerful scripting to make their task easier. Python programming and function helps to manage and monitor running process and provides updates, stats, configure and troubleshoot issue.

- **Python for Database programmers** –Python programming is so useful for Database programmers. Python is cool programming language and helps to minimize error and brings efficiency in creating database, fetching data or manipulating data in Dtabase.

- **Python and Django MVC training for developers** –Django is MVC based high lever framework of Python programming language. It is a very popular framework used to develop portals and social networking websites. Python training will help you to develop complex and simple websites using django framework.

Python Course Contents

Introduction to Python Programming

- Why do we need Python?
- Program structure in Python

Execution steps

- Interactive Shell
- Executable or script files.
- User Interface or IDE

Memory management and Garbage collections

- Object creation and deletion
- Object properties

Data Types and Operations

- Numbers
- Strings
- List
- Tuple • Dictionary
- Other Core Types

Statements and Syntax in Python

- Assignments, Expressions and prints
- If tests and Syntax Rules
- While and For Loops
- Iterations and Comprehensions

File Operations

- Opening a file
- Using Files
- Other File tools

Functions in Python

- Function definition and call
- Function Scope
- Arguments
- Function Objects
- Anonymous Functions

Modules and Packages

- Module Creations and Usage

- Module Search Path
- Module Vs. Script
- Package Creation and Importing

Classes in Python

- Classes and instances
- Classes method calls
- Inheritance and Compositions
- Static and Class Methods
- Bound and Unbound Methods
- Operator Overloading
- Polymorphism

Exception Handling in Python Programming

- Default Exception Handler
- Catching Exceptions
- Raise an exception
- User defined exception

Advanced Python Concepts

- Decorators
- Generators
- Iterators
- Co-routines

Standard Library Modules

Exercises Roadmap with Python

Advanced Python training details

MODULE1

Command Line arguments

Display Hooks

Standard data streams and Redirections

Os module

Sub-process module

Forking processes

Exec functions

Working with comprehensions

Working with Descriptors, Iterators, Generators and Decorators

The yield statement

range and x-range

Working with Context Managers

Wrapping Objects

Callback functions

Duck Typing, Monkey Patching in Python

Encapsulating Object Creation: Factory

MODULE 2

Introduction to Threads in python

thread module

threading module

Introduction to Pipes in python

anonymous pipes

named pipes, fifos

Introduction to Recursion

Recursive functions in Python

Depth of Recursion

MODULE 3

CGI Programming

Introduction to WSGI

Introduction to PEP3333

Bottle Framework

Flask Framework

WebTest Framework

Create a basic Web Service in python

Working with Databases

Connecting with Cassandra DB, SQLite3, MySQL

Database Operations

MODULE 4

Network Programming

Working with XML Files

Developing GUIs

Working with SMTP

Integrating Python with other Languages

