Python Syllabus

1: Introduction To Python
Installation and Working with Python

Understanding Python variables

Python basic Operators

Understanding python blocks

2: Python Data Types
Declaring and using Numeric data types: int, float, complex

Using string data type and string operations

Defining list and list slicing

Use of Tuple data type

3: Python Program Flow Control
Conditional blocks using if, else and elif

Simple for loops in python

For loop using ranges, string, list and dictionaries

Use of while loops in python

Loop manipulation using pass, continue, break and else

Programming using Python conditional and loops block

4: Python Functions, Modules And Packages
Organizing python codes using functions

Organizing python projects into modules

Importing own module as well as external modules

Understanding Packages

Powerful Lamda function in python

Programming using functions, modules and external packages

5: Python String, List And Dictionary Manipulations
Building blocks of python programs

Understanding string in build methods

List manipulation using in build methods

Dictionary manipulation

Programming using string, list and dictionary in build functions

6: Python File Operation
Reading config files in python

Writing log files in python

Understanding read functions, read(), readline() and readlines()

Understanding write functions, write() and writelines()

Manipulating file pointer using seek

Programming using file operations

7: Python Object Oriented Programming – Oops

Concept of class, object and instances

Constructor, class attributes and destructors

Real time use of class in live projects

Inheritance , overlapping and overloading operators

Adding and retrieving dynamic attributes of classes

Programming using Oops support

8: Python Regular Expression

Powerful pattern matching and searching

Power of pattern searching using regex in python

Real time parsing of networking or system data using regex

Password, email, url validation using regular expression

Pattern finding programs using regular expression

9: Python Exception Handling

Avoiding code break using exception handling

Safe guarding file operation using exception handling

Handling and helping developer with error code

Programming using Exception handling

10: Python Database Interaction

SQL Database connection using python

Creating and searching tables

Reading and storing config information on database

Programming using database connections

11: Python Multithreading

Understanding threads

Forking threads

Synchronizing the threads

Programming using multithreading

12: Contacting User Through Emails Using Python

Installing smtp python module

Sending email

Reading from file and sending emails to all users addressing them directly for marketing

13: Python CGI Introduction

Writing python program for CGI applications

Creating menus and accessing files

Server client program

14: Sample Project