Python

Duration: 3 days

Day 1:

Module 1

 Introduction to Python, Data Types, Quotations

· Python Interpreter and its Environment

 · Python 3.x: Background, Relevance

· Numbers

 · Strings

 · Declaration of variables

Module 2

Conditional statements/Control Structures

· If Statements

· While construct

 · For Statements

· Break and continue Statements, and else clauses on Loops

 · Pass Statements

DAY-2

Module 3

Python basic data structures

· Arrays, Lists and Tuples

 · Dictionary and Sets

· List and array slicing

Module 4

. Functions

· Local variables

· Default Argument Values

· Returning Values

· Keyword & Positional Arguments

· Arbitrary Argument Lists

· Documentation Strings

· Unpacking Argument Lists (unknown number of parameters)

· Lambda Expressions

Day-3

Module 5

 Functional Programming

· Lambda Forms

· list comprehension

· isalpha

· map

· apply

· reduce

· filter

Module 6

File handling and other OS interactions

· Creating and Opening a File

· Reading from a file, writing to a file (variations)

· Closing a File

· Handling csv files

Module 7

· Handling Exceptions

· try-except · else clause

· finally, clause

· Raising Exceptions

· User-defined Exceptions

Module 8

Regular expressions

· What is regular expression?

· Matching characters

· Compiling regular expressions

· Metacharacters like quantifiers, anchors, character classes, alternator etc.