

Course Curriculum PYTHON

Introduction

01

02

Working with data

Modules

03

04

Object Oriented Programming

File Handling

05

06

Regular Expressions

07

Iterators and Generators

08

Unit testing



Module 2

Introduction

In this module, you will understand what is python, how to install and use it including with some basic concepts of python to understand it more.

- > Installing Python (By default installed in Linux systems)
- > Formal and natural languages
- > Python Interpreter
- > Python Scripts
- > Assignments
- > Numbers
- > Strings
- > Functions
- > Conditional Expressions
- > Errors and Debuggers (Syntax errors, Runtime errors, Semantic errors)

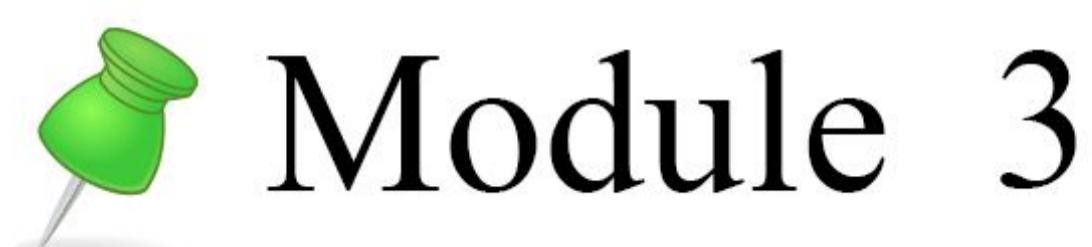


Module 2

Working with data

This module is for describing different data types and functions in python and how to use them.

- > Dictionaries (Dict)
- > Lists
- > Tuples
- > Sets
- > Strings
- > List – dictionaries Comprehensions (List of lists, list of dict, dict of list, dict of dict etc.)
- > Built in functions (str, type, len, dir)
- > Lambda Function



Module 3

Modules

This module contains standard libraries which are mostly used in python and third party tools.

- > Standard Libraries (urllib, re, os, sys , strings, math, random etc)
- > Installing third party tool (virtual env, Beautiful soup etc)



Module 4

Object Oriented Programming

This module deals with object oriented concepts of python programming. State

- > Classes and objects
- > Inheritance
- > Special class methods
- > Error and exceptions Handling

 Module 5

File Handling

This module deals File handling in python programming such that what are different use cases we can apply on files.

- > Reading file
- > Opening File
- > Closing file
- > Writing to files
- > Errors and exceptions handling



Module 6

Regular Expressions

Regular expressions are a powerful and standardized way of searching, replacing, and parsing text from files/string etc. If you've used regular expressions in other languages, the syntax will be very familiar, and you get by just reading the summary of the re module

- > Pattern and rules for them
- > Sub function
- > Search function
- > Compile function

 Module 7

Iterators and Generators

These are objects which use some logic/method to get next value of sequence.

- > Iterators
- > Generators
- > General Expressions
- > Itertools



Module 8

Unit testing

This is very important for self-testing purpose of your project/program. This is useful for checking expected results, failed and success scenarios.

- > Purpose and use of it
- > How to write test cases
- > Test case for Success, Failures
- > Test case for expected results