

Course name: Road to Python

Vision: To make you a Pythonist ! (We have setup a road for you, come and drive Python here and become an affluent programmer)

Duration : 4 Weeks

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Introduction

- History
- Features
- Versions of Python (Diff between 2.x & 3.x)
- Setting up Python environment & IDE
- Working with Python
- Basic Syntax
- Variable and Data Types
- Operators

Conditional Statements

- If
- If- else
- Nested if-else

Looping

- For
- While
- Nested loops

Control Statements

- Break
- Continue
- Pass

String Manipulation

- Accessing Strings
- Basic Operations

String slices
Function and Methods

Data structure (Lists, Set & Tuples)

Introduction
Accessing list, set & tuples
Operations
Working with lists, set & tuples
Function and Methods
Examples on when to use what

Dictionaries/Map

Introduction
Accessing values in dictionaries
Working with dictionaries
Properties
Functions

Functions

Defining a function
Calling a function
Types of functions
Function Arguments
Anonymous functions
Global and local variables

Modules

Importing module
Math module
Random module
Packages
Composition

Input-Output

Printing on screen
Reading data from keyboard
Opening and closing file
Reading and writing files
Functions

Exception Handling

Exception
Exception Handling
Except clause
Try ? finally clause

User Defined Exceptions

Assessment

Advance Python

OOPs concept

Class and object

Attributes

Inheritance

Overloading

Overriding

Data hiding

Regular expressions

Match function

Search function

Matching VS Searching

Modifiers

Patterns

Database

Introduction to RDBMS

Connections

Executing queries

Transactions

Handling error

REST service

Introduction

Architecture

Implementing a simple REST service

Building full fledged GET, POST, PUT & DELETE methods using Flask

Multithreading

Thread

Starting a thread

Threading module

Synchronising threads

Multithreaded Priority Queue

Data processing and manipulation libraries

- NUMPY

- PANDAS

ASSESSMENT

Whats next for your career?

- Can build web applications
- Can do web automation testing
- Can do Cloud automation
- Can preprocess and manipulate the data
- Can build machine learning models etc