Python advance with projects

Throughout this course, you will learn everything you need to know about Python, from the basics to advanced topics. Python applications like download manager will be developed using advanced principles to help you become a professional programmer capable of landing well-paying employment.

This course is a part of Tech Neuron

What you'll learn

Introduction

Programming language overview
Installation (tools: sublime, vscode, pycharm, anaconda, atom,jupyter notebook, kite)
Virtual environment
Why python

Python Basic

Introduction of python and comparison with other programming language
Installation of anaconda distribution and other python ide
Python objects, number & Booleans, strings.
Container objects, mutability of objects
Operators - arithmetic, bitwise, comparison and assignment operators, operator's precedence and associativity
Conditions (if else, if-elif-else), loops (while, for)
Break and continue statement and range function

String Objects

Basic data structure in python
String object basics
String inbuilt methods
Splitting and joining strings
String format functions

List Object Basics

List methods
List as stack and queues
List comprehensions

Tuples, Set, Dictionaries & Its Function

Dictionary object methods
Dictionary comprehensions
Dictionary view objects
Functions basics, parameter passing, iterators.
Generator functions
Lambda functions
Map, reduce, filter functions.

Oops Concepts

oops basic concepts.

Creating classes
Pillars of oops
Inheritance
Polymorphism
Encapsulation
Abstraction
Decorator
Class methods and static methods
Special (magic/dunder) methods
Property decorators - getters, setters, and deletes

Files

Working with files
Reading and writing files
Buffered read and write
Other file methods.
Logging, debugger
Modules and import statements

Exception Handling Difference Between Exceptions And Error

Exceptions handling with try-except
Custom exception handling
List of general use exception
Best practice exception handling

Pandas Basic

Python pandas - series
Python pandas – data frame
Python pandas – panel
Python pandas - basic functionality
Reading data from different file system

Pandas Advance

Python pandas – re indexing python
Pandas – iteration
Python pandas – sorting.
Working with text data options & customization
Indexing & selecting
Data statistical functions
Python pandas - window functions
Python pandas - date functionality
Python pandas –time delta
Python pandas - categorical data
Python pandas – visualization
Python pandas - iotools

Dask

Dask array
Dask bag
Dask dataframe
Dask delayed
Dask futures
Dask API
Dask scheduling
Dask understanding performance
Dask visualize task graphs
Dask diagnostics (local)

Dask diagnostics (distributed)
Dask debugging
Dask ordering

Python Numpy

Numpy - ND array object.
Numpy - Data types
Numpy - Array attributes
Numpy - Array creation routines
Numpy - Array from existing
Data array from numerical ranges.
Numpy - Indexing & slicing.
Numpy – Advanced indexing
Numpy – Broadcasting
Numpy - Iterating over array
Numpy - Array manipulation
Numpy - Binary operators
Numpy - String functions
Numpy - Mathematical functions
Numpy - Arithmetic operations
Numpy - Statistical functions
Sort, search & counting functions.
Numpy - Byte swapping
Numpy - Copies &views
Numpy - Matrix library
Numpy - Linear algebra

Visualization

Matplotlib
Seaborn
Cufflinks
Plotly
Bokeh

Web API

What is web API ?
Difference between API and web API ?
Rest and SOAP architecture
Restful services

Flask

Flask introduction
Flask application
Open link flask
App routing flask
Url building flask
Http methods flask
Templates flask
Flask project: Food app
Postman

Database

SQLite
MySQL
MongoDB
Cassandra

Memory Management

Multithreading
Multiprocessing

Python Project

Weeding script
Image resizing
Jupyter notebook merging, reading etc.
Sending emails
Weather app
Memes generator
Food log app
Web scrapping
Web crawlers for image data sentiment analysis and product review sentiment analysis.
Integration with web portal.
Integration with rest api, web portal and mongodb on azure
Deployment on web portal on azure.
Text mining
Social media data churn
Mass copy, paste

Course language: English

Price : Rs.25000/-

Instructor(s)

- Sudhanshu Kumar

Course Features

- Challenges
- Quizzes
- Assignments
- Downloadable resources
- Completion certificate

System Requirements

- Basic knowledge of Python
programming
- A system with stable internet connection
- Your dedication