Python For Data Analyst

First Complete Required Python Programming Syllabus:-

- Understanding syntax, variables, and data types like integers, floats, strings, booleans
- Control structures: if-else, Loops (for, while)
- Core data structures: lists, dictionaries, sets, tuples
- Functions , Error handling, lambda functions & try-except
- Using modules and packages
- OOP (Object Oriented Programming) : This you can learn in optional

Youtube Video:

This below mentioned youtube video contains the complete tutorial video of **Required Python Programming Syllabus** in English -

Note- Learn only the above mentioned topics of Python Syllabus from the video !!

-     https://www.youtube.com/watch?v=kqtD5dpn9C8&t=1786s

And if you want to learn in Hindi, then you can follow this below video:

-     https://www.youtube.com/watch?v=fqF9M92jzUo

        Note - While learning the concepts from video, keep practicing the syntax on below mentioned web resource:-
-      https://www.w3schools.com/python/default.asp

After this, try to solve the top 30 Python coding questions below in your system environment to gain hands-on experience and start with Python programming -

- https://www.analyticsvidhya.com/blog/2024/05/python-coding-interview-questions-for-beginners/

Then start practicing Python from the websites mentioned below. Focus only on solving basic to medium-level questions from the topics mentioned above. Avoid DSA programming questions:

- https://www.hackerrank.com/domains/python

- https://leetcode.com/problemset/

Python Data Analysis Libraries Syllabus:-

Pandas: What is Pandas?, Installing Pandas, Importing Pandas, Pandas Data Structures (Series, DataFrame, Index)

Working with DataFrames: Creating DataFrames, Accessing Data in DataFrames, Filtering and Selecting Data, Adding and Removing Columns, Merging and Joining DataFrames, Grouping and Aggregating Data, Pivot Tables

Data Cleaning and Preparation: Handling Missing Values, Handling Duplicates, Data Formatting, Data Transformation, Data Normalization

Data Visualization with Pandas: Line Plots, Bar Plots, Scatter Plots, Histograms, Box Plots, Heatmaps

File Handling in Python: Reading and Writing Text Files, Reading and Writing Binary Files, Working with CSV Files, Working with JSON Files

Numpy: What is NumPy?, Installing NumPy, Importing NumPy, NumPy Arrays

NumPy Array Operations: Creating Arrays, Accessing Array Elements, Slicing and Indexing, Reshaping Arrays, Combining Arrays, Splitting

Arrays, Arithmetic Operations, Broadcasting, Mathematical Functions, Statistical Functions, Linear Algebra Operations

Working with Data in NumPy: Reading and Writing Data with NumPy, Filtering and Sorting Data, Data Manipulation with NumPy, Window Functions

NumPy with Other Libraries: Matplotlib, Pandas

Complete below video course of python data analysis using pandas, numpy, matplotlib (optional) and seaborn (optional)

Note:- Learn only the above mentioned topics of Syllabus from the video !!

- https://www.youtube.com/watch?v=r-uOLxNrNk8&t=683s

Complete at least 3-4 case study from below playlists

- https://youtube.com/playlist?list=PL_1pt6K-CLoDMEbYy2PcZuITWEjqMfyoA

Website For Practice:-
- https://leetcode.com/studyplan/30-days-of-pandas/

- https://www.kaggle.com/code/icarofreire/pandas-24-useful-exercises-with-solutions

Python Project (Optional) -

- https://www.youtube.com/watch?v=iwUli5gIcU0

THANKS !!

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YouTube:

https://youtube.com/@shakrashamim?si=ucGSJ3mkKv8Lk7MQ

Instagram:

https://www.instagram.com/shakra.shamim/?igshid=OTJlNzQ0NWM%3D

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