Document Generated: 12/18/2025

Learning Style: On Demand

Technology: Microsoft

Difficulty: Beginner

Course Duration: 20 Hours

Introduction to Python: Fundamentals

About the course:

After the beginners course where you learned all sorts of basics about python, you are ready to move on to this fundamentals course which will teach you all about the data structures of Python, working with string list and range sequences. This course will allow you to have more hands on experience when you are working with code in Jupyter Notebooks on Azure.

As mentioned above you will learn about the significance of list iteration which will be followed by everything you need to know about file input and output namely, opening them, reading them, editing them, closing them an much more. By the time this course is finished, you will see yourself slicing strings into substrings, creating

and recapitulating lists, importing files and using file to append more. Alongside this you will be able to perform many practical functions of Python while you are coding.

Aims:

- The fundamentals of Python 3
- Being able to manipulate strings and lists
- Ways of iterating through lists, string and ranges
- Editing files in any way

Targeted Audience:

- Data Analysts
- Programmers

Prerequisite:

- Dev236x

Course Outline:

Module 1 Sequence Index

- Using Jupyter
- String Sequences
- Index Slicing
- Iterating Strings
- String Methods
- Module 1 Practice
- end of Mod coding assignment

Module 2 Sequence Manipulation

- List Sequences
- List Append
- List Insert
- List Delete
- Module 2 Practice
- end of Mod coding assignment

Module 3 Sequence Iteration

- Power of List Iteration
- Range Iteration
- extend, reverse, sort methods
- between strings & lists
- Module 3 Practice
- end of Mod coding assignment

Module 4 Files

- Files import, open & read
- File .readlines() and .close() methods
- File .readline() & .strip() methods
- File .write() & .seek() methods
- Module 4 Practice
- end of Mod coding assignment

Module 5 Final Evaluation

- Final Coding Assignment