18/09/2024, 17:42 about:blank

Glossary: Working with Data in Python

Welcome! This alphabetized glossary contains many of the terms you'll find within this course. This comprehensive glossary also includes additional industryrecognized terms not used in course videos. These terms are important for you to recognize when working in the industry, participating in user groups, and participating in other certificate programs.

Term **Definition** A .csv (Comma-Separated Values) file is a plain text file format for storing tabular data, where each line represents a row and uses commas .csv file to separate values in different columns. A .txt (Text) file is a common file format that contains plain text without specific formatting, making it suitable for storing and editing .txt file textual data. To "append" means to add or attach something to the end of an existing object, typically used in the context of adding data to a file or Append elements to a data structure like a list in Python. Attribute An "attribute" in Python refers to a property or characteristic associated with an object, which can be accessed using dot notation. Broadcasting in NumPy allows arrays with different shapes to be combined in element-wise operations by automatically extending smaller Broadcasting in NumPy arrays to match the shape of larger ones, making operations more flexible. In NumPy, a "component" typically refers to a specific element or value within a multi-dimensional array, which can be accessed using Component Computation in NumPy involves performing numerical operations on arrays and matrices, making it a powerful library for mathematical Computation and scientific computing in Python. Data analysis is the process of inspecting, cleaning, transforming, and interpreting data to discover useful information, draw conclusions, Data analysis and support decision-making.

DataFrames A DataFrames in Pandas is a two-dimensional, tabular data structure for storing and analyzing data, consisting of rows and columns. Dependencies in Pandas are external libraries or modules, such as NumPy, that Pandas rely on for fundamental data manipulation and Dependencies

File attribute File attributes generally refer to properties or metadata associated with files, which are managed at the operating system level. A "file object" in Python represents an open file, allowing reading from or writing to the file. File object

In Python, a "grid" typically refers to a two-dimensional structure composed of rows and columns, often used to represent data in a tabular Grid format or for organizing objects in a coordinate system. The Hadamard product is a mathematical operation that involves element-wise multiplication of two matrices or arrays of the same shape,

Hadamard Product producing a new matrix with each element being the product of the corresponding elements in the input matrices To import Pandas in Python, you use the statement: import pandas as pd, which allows you to access Pandas functions and data structures

Importing pandas using the abbreviation "pd." In Python, an "index" typically refers to a position or identifier used to access elements within a sequence or data structure, such as a list or

Index string.

Libraries in Python are collections of pre-written code modules that provide reusable functions and classes to simplify and enhance Libraries software development. In Python, "linespace" refers to a NumPy function that generates an array of evenly spaced values within a specified range.

NumPy in Python is a fundamental library for numerical computing that provides support for large, multi-dimensional arrays and matrices, NumPy

as well as a variety of high-level mathematical functions to operate on these arrays. One dimensional A one-dimensional NumPy array is a linear data structure that stores elements in a single sequence, often used for numerical computations

NumPy and data manipulation. Open function In Python, the "open" function is used to access and manipulate files, allowing you to read from or write to a specified file.

Pandas is a popular Python library for data manipulation and analysis, offering data structures and tools for working with structured data

Pandas

Pandas library in Python refer to the various modules and functions within the Pandas library, which provides powerful data structures and Pandas library data analysis tools for working with structured data.

Plotting mathematical functions in Python involves using libraries like Matplotlib to create graphical representations of mathematical Plotting Mathematical **Functions** equations, aiding visualization, and analysis.

Shape In NumPy, "shape" refers to an array's dimensions (number of rows and columns), describing its size and structure.

Slicing in NumPy entails extracting specific portions of an array by specifying a range of indices, enabling you to work with subsets of the Slicing

Two dimensional A two-dimensional NumPy array is a structured data representation with rows and columns, resembling a matrix or table, ideal for various NumPy data manipulation and analysis tasks.

Linespace

Universal functions (ufuncs) in NumPy are functions that operate element-wise on arrays, providing efficient and vectorized operations for Universal Functions

a wide range of mathematical and logical operations. Vector addition in Python involves adding corresponding elements of two or more vectors, producing a new vector with the sum of their

Vector addition

Visualizations in Python refer to the creation of graphical representations, such as charts, plots, and graphs, to illustrate and communicate Visualizations data and trends visually



about:blank 1/1