SKILLS NETWORK

Python Basics for Data Science

Module 4: Working with Data in Python

Class or Method	Description	Example
close()	Closes a file.	file1.close()
dot	Calculate the dot product from two NumPy arrays.	np.dot(U, V)
dtype	Check the type of values stored in a NumPy array.	myArray.dtype
linspace()	Returns evenly spaced numbers over a specified interval.	np.linspace(-2, 2, 5)
matplotlib.pyplot	A library of functions that make matplotlib behave similar to MATLAB.	import matplotlib.pyplot as plt plt.plot([1, 2, 3, 4]) plt.xlabel("time") pltylabel("distance") plt.show()
max	Get the largest value from a NumPy array.	myArray.max
mean	Get the mean of a NumPy array.	myArray.mean
ndim	Get the number of dimensions of a NumPy array.	myArray.ndim
numPy	A library used for working with arrays as well as functions for working with linear algebra, matrices, and Fourier transform.	import numpy as np
open()	Opens a file.	file1=open(example1, "r")
pi	The value of pi.	np.pi
read()	Reads a file.	FileContent=file1.read()
readline()	Reads the first line of the file.	with open(example1, "r") as file1:

		print("first line: " + file1.readline())
shape	A tuple of integers that indicates the size of a NumPy array in each dimension.	myArray.shape
sin()	Calculate the sine of all elements in a NumPy array.	y=np.sin(x)
size	Get the size of a NumPy array.	myArray.size
std	Get the standard deviation of a NumPy array.	myArray.std
T	Transpose a NumPy array.	my2DArray.T

with open() as	Opening a file using the keyword “with” automatically closes the file after the code in the with statement is executed.	with open(example1, "r") as file1:
		  FileContent = file1.read()
		  print(FileContent)

write()	Writes a line to a file. write() takes two arguments, the pathname/URL and a mode. Passing the parameter ‘w’ as the mode overwrites all existing data. Passing ‘a’ as the mode appends the data.	exmp2 = '/resources/data/Example2.txt' with open(exmp2, 'w') as writefile: writefile.write("This is line A")