PYTHON FUNCTIONS IN ALTERYX : CHEAT SHEET

INPUTS AND OUTPUTS

Alteryx.read("#1")
Stream in a connected data input to the Python Tool. Creates a Pandas DataFrame.

Alteryx.getIncomingConnectionNames()
Returns a list of all incoming data connections in a list.

Alteryx.write(df, 1)
Writes Pandas DataFrame out of Python Tool to the anchor with the number specified.

METADATA

Alteryx.readMetadata('#1')
Read metadata from incoming data stream as dictionary.

Alteryx.write(df, 1, md)
Write out the data with the original metadata.

Add metadata for new column:

```
md['new_column'] = {
   'name': 'New Column Name',
   'type': 'String',
   'length': (8,)
}
```

MATPLOTLIB ESSENTIALS

import matplotlib.pyplot as plt
Import matplotlib package with abbreviation to use functions commonly written with "plt."

plt.hist(column_1)
Make a histogram (bar chart) of values in column_1.

plt.scatter(column_1, column_2)
Make a scatter plot comparing column_1 (x-axis) to column_2 (y-axis).

PACKAGES AND SCRIPTS

from ayx import Alteryx
This essential code will be automatically placed in the first cell of your notebook to import the Alteryx API package.

Package.installPackages()
To add packages not installed by default. Alteryx must be in admin mode.

Import an Existing Python Script or Jupyter Notebook
Alteryx > Import Script > Choose File > Import

Default Packages
The packages loaded by default for the Python Tool are ayx, geopandas, jupyter, matplotlib, numpy, pandas, requests, scikit-learn, scipy, six, SQLAlchemy, and statsmodels.

JUPYTER NOTEBOOK SHORTCUTS

Run an individual cell: Ctrl + Enter
Add a cell above current cell: Esc then A
Add a cell below current cell: Esc then B
Delete current cell: Esc then D twice
Set cell type as Code: Esc then Y
Set cell type as Markdown: Esc then M
Split cell in two at cursor location: Ctrl + Shift + _
Comment/uncomment line of code: Ctrl + /

INTERFACE TOOLS

Alteryx.getWorkflowConstant()
Retrieve a specific workflow constant. Example: *Alteryx.getWorkflowConstant("Engine.WorkflowDirectory")*

Alteryx.getWorkflowConstants( )
Returns a dictionary of the values of all Alteryx workflow constants.

PANDAS ESSENTIALS

import pandas as pd
Import pandas package with abbreviation to use functions commonly written with "pd."

df.head(n) or **df.tail(n):** display first or last n rows of DataFrame

df.info(): index, datatype and memory information

df.describe(): summary statistics for numerical columns

df[[column_1, column_2]]: returns selected columns as a new DataFrame

df.columns = ['a', 'b', 'c']: rename all columns

df.rename(columns={'old_name' : 'new_ name'}): rename only selected columns

df.column_1 = df.column_1.astype(int): convert column_1's datatype to integer

df2 = df[df[column_1] > 3]: make new DataFrame from rows where column_1 value is greater than 3

RESOURCES

Alteryx.help()
Use this function in the Jupyter interface for help.

Workflow Example
Click on the Python Tool and then Open Example.

Tool Mastery | Python

Python Tool Help Documentation

How to Reset the Python Tool to its Original State