Welcome Introduction to Jupyter Notebooks.

This tutorial walks you through what Jupyter is and some basic syntax.

A Jupyter notebook is a browser-based application that allows you to create and share documents

that contain code, equations, visualizations, narrative text links, and so much more.

It can be likened to a scientist’s lab notebook where a scientist records all steps to perform

their experiments and record the results so it can be reproduced in the future.

Similarly, a Jupyter Notebook allows a Data Scientist to record their data experiments,

their results, and allows for the same experiment to be used and repeated by anyone.

A Jupyter Notebook file allows Data Scientists to combine descriptive text, code blocks,

and code output in a single file. When you run the code, it generates the outputs, including plots and tables, within the notebook file. And you can then export the notebook to a PDF or HTML file that can be then be shared with anyone.

Jupyter Notebooks originated as “iPython” originally developed for the Python Programming

language.

As it came to support additional languages it was renamed Jupyter which stands for:

Julia - Python - R. But nowadays, the notebook supports many other languages as well.

Jupyter Lab is a browser-based application that allows you to access multiple Jupyter

Notebook files as well as other code and data files.

Jupyter Lab extends the functionalities of Jupyter notebooks by enabling you to work

with multiple notebooks, text editors, terminals, and custom components in a flexible, integrated,

and extensible manner.

JupyterLab allows for: Interactive control of the notebook cells and output, real time

editing markdowns, CSV etc.

It is compatible with several file formats like CSV, JSON, PDF, Vega and more. And is open source.

Jupyter notebooks can be used with a cloud-based service like IBM and Google Collab.

They do not require you to install anything on your local machine; they give you access

to the Jupyter Notebook environment.

They do allow you to import and export notebooks using the standard IPython Notebook file format.

They support the Python language and other languages as well. Jupyter notebooks can be installed via the command line using the pip install function. Jupyter notebooks can also be downloaded locally to your laptop through the Anaconda Platform from Anaconda.com. Anaconda is one of the popular distributions which includes Jupyter and Jupyterlab.

For the purposes of learning in this course, you have access to a hosted version of JupyterLab

in Skills Network Labs, so you do not have download and install anything on your own

device in order to complete the hands-on labs.

You will see a screen like this that launches the Jupyter Lab in the virtual environment.

Simply click on Open tool.

You should now be familiar with:

* How Jupyter notebooks are used in Data Science for recording experiments and projects.
* How Jupyter Lab is compatible with many files and many Data Science languages.
* And different ways to install and use Jupyter Notebooks.