Welcome to "Introduction to Jupyter Notebooks."

After watching this video, you will be able to

define a Jupyter Notebook,

explain how to use JupyterLab, and

describe how to use the notebooks in JupyterLab.

Jupyter Notebooks originated as "iPython," originally developed for Python programming.

Later, when it started supporting additional languages, it was renamed

Jupyter, which stands for Julia, Python, and R.

However, now, it supports many other languages.

A Jupyter Notebook is a browser-based application that allows you to create

and share documents containing code, equations, visualizations, narrative text links, and more.

It is like a scientist's lab notebook, where a scientist records all steps to

perform their experiments and the results they can reproduce.

In the same way, a Jupyter Notebook allows a Data Scientist to record

their data experiments and results that others can reuse.

Now a Jupyter Notebook file allows you to combine descriptive text,

code blocks, and code output in a single file.

When you run the code, it generates the output,

including plots and tables, within the notebook file.

And you can then export the notebook to a PDF

or HTML file format that can then be shared with anyone.

Next, let's learn about Jupyter Lab.

Jupyter Lab is a browser-based application that allows you

to access multiple Jupyter Notebook files, other code, and data files.

In addition, it 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.

It is compatible with several file formats like CSV, JSON, PDF, Vega, and so on.

And it is also an open source.

Jupyter Notebooks can be used with cloud-based services like IBM and Google Colab.

They don't require any installation on your local machine.

They give you access to the Jupyter Notebook environment and allow you to

import and export notebooks using the standard IPython Notebook file format.

Also, these services support the Python language and other languages as well.

Jupyter Notebooks can be installed via the command line using the pip install function.

It can also be downloaded locally on

your laptop through the Anaconda Platform from Anaconda dot com.

Anaconda is one of the popular distributions which includes Jupyter and Jupyterlab.

So, for this course, you have access to a hosted version of JupyterLab in Skills Network Labs,

so you do not require any installations on your own device to complete the hands-on labs.

As shown here, you will see a screen that will launch the Jupyter Lab in the virtual environment.

Simply click the Open tool tab.

In this video, you learned that

Jupyter Notebooks are used in Data Science for recording experiments and projects.

Jupyter Lab is compatible with many files and Data Science languages.

And there are different ways to install and use Jupyter Notebooks.