

Working with Python Using Anaconda



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Overview

Introducing Jupyter notebooks

The history of IPython and Jupyter

Installing the Anaconda distribution of Python on Windows and MacOS

Working with the Python 2 and Python 3 kernels

Code cells, markdown cells, keyboard shortcuts

Exploring magic functions

Exploring interactive widgets

Jupyter Notebooks and Python

Python on Jupyter notebooks has
dramatically democratized analytics

Jupyter Notebook

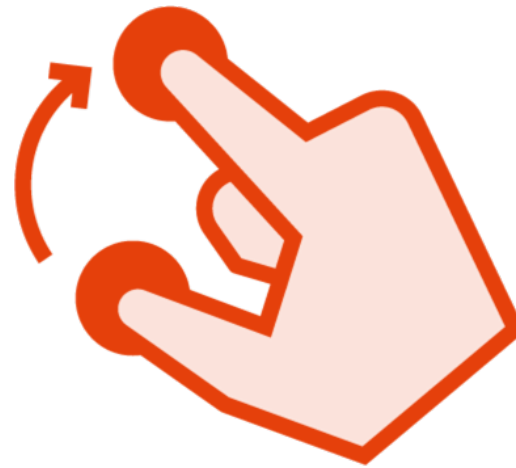
Open-source web application that allows interactive development in Python and several other languages.

Python on Jupyter



Accessible

Web-based and free -
no cost or installation
hassle



Interactive

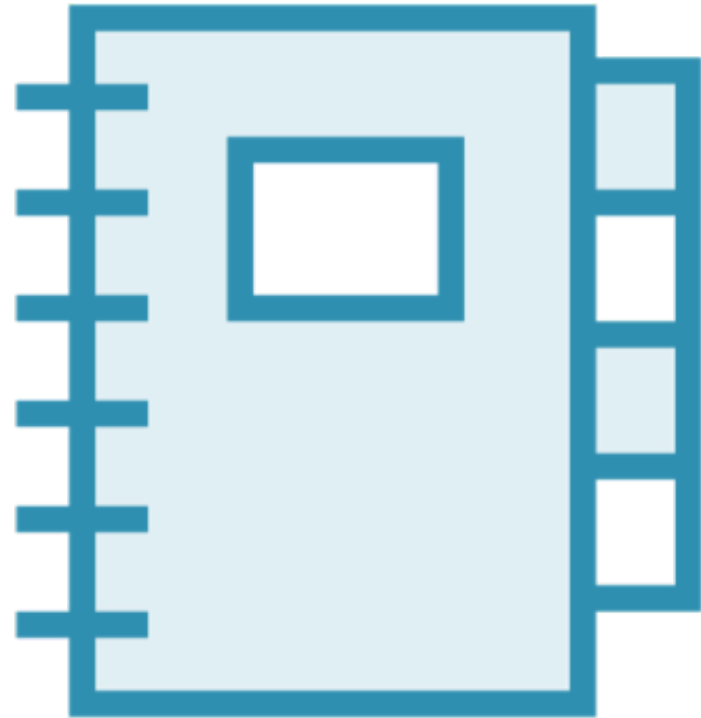
Read-Evaluate-Print-
Loop for instant
feedback



Powerful

Integrations with
cloud and distributed
technologies

Python on Jupyter



Web-based

Interactive

Code and markdown

Visualizations

Shell commands

Integration with file system

Project Jupyter

Non-profit, open-source project born out the IPython project in 2014 - includes Jupyter as well as JupyterLab.

IPython

Original project for interactive, web-based Python notebooks. Now, since 2014, a part of Jupyter focused on interactive Python.

JupyterLab

Next-generation notebook interface from Jupyter. Fully backward compatible with Jupyter notebooks, but nicer UI and enhanced usability.

.ipynb Files



Notebook document extension

Contains all content in the notebook

Input code and results

Images

Markdown explanatory text

.ipynb Files



Jupyter notebooks formerly known as IPython notebooks

Explains the extension

Stored in the JSON format

Cannot be directly used as Python script files

Demo

Windows: Installing the Anaconda distribution of Python and running the Jupyter notebook server

Demo

MacOS: Installing the Anaconda distribution of Python and running the Jupyter notebook server

Demo

**Working with the Python 2 and Python
3 kernel**

Demo

Exploring the notebook interface

Running and executing code

Demo

Exploring line magic and cell magic commands

Demo

Working with interactive widgets

Demo

Wrangling and visualizing data

Summary

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