

# Introduction

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Pada workshop ini kita akan mengeksplorasi kemampuan Data Science untuk mengambil *insight* dari data. Tetapi sebelumnya, *make sure* kita menggunakan tools yang tepat untuk memulai pembelajaran.

Tutorial pendek ini membahas tentang :

- Alternatif *platform* yang bisa digunakan.
- Konfigurasi komputer lokal untuk pembelajaran data science
- Menggunakan Scikit-learn, termasuk instalasi.

## Installations and configurations

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1. *Install Python.* Ensure that Python is installed on your computer. You will use Python for many data science and machine learning tasks. Most computer systems already include a Python installation. There are useful Python Coding Packs available as well, to ease the setup for some users.

Some usages of Python, however, require one version of the software, whereas others require a different version. For this reason, it's useful to work within a virtual environment.

2. *Install Visual Studio Code.* Make sure you have Visual Studio Code installed on your computer. Follow these instructions to install Visual Studio Code for the basic installation. You are going to use Python in Visual Studio Code in this course, so you might want to brush up on how to configure Visual Studio Code for Python development.

Get comfortable with Python by working through this collection of Learn modules

3. *Install Scikit-learn, by following these instructions.* Since you need to ensure that you use Python 3, it's recommended that you use a virtual environment. Note, if you are installing this library on a M1 Mac, there are special instructions on the page linked above.
4. *Install Jupyter Notebook.* You will need to install the Jupyter package.

## Your ML authoring environment

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You are going to use notebooks to develop your Python code and create machine learning models. This type of file is a common tool for data scientists, and they can be identified by their suffix or extension .ipynb.

Notebooks are an interactive environment that allow the developer to both code and add notes and write documentation around the code which is quite helpful for experimental or research-oriented projects.

### Exercise - work with a notebook

In this folder, you will find the file notebook.ipynb.

Open notebook.ipynb in Visual Studio Code.

A Jupyter server will start with Python 3+ started. You will find areas of the notebook that can be run, pieces of code. You can run a code block, by selecting the icon that looks like a play button.

Select the md icon and add a bit of markdown, and the following text # Welcome to your notebook.

Next, add some Python code.

Type `print('hello notebook')` in the code block.

Select the arrow to run the code.

You should see the printed statement:

hello notebook