

# Using Python via Jupyter Notebook

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## 1 Download Jupyter Notebook

Jupyter Notebook is an open-source web application that allows you to create and share documents containing code, equations, visualizations, and narrative text. It relies on Python, so you need to install Python first. It is recommended to use Anaconda, which is a scientific computing package manager that includes Python and Jupyter Notebook.

### 1.1 Downloading Anaconda:

- Visit the official Anaconda website: [Anaconda.com](https://anaconda.com)
- Choose the installer appropriate for your operating system and download it.
- Follow the installation guide to complete the installation.

After installing Python and Jupyter Notebook with Anaconda, you can launch Jupyter Notebook via Anaconda Navigator (Anaconda's graphical interface management tool) or use the command line.

## 2 Running Python in Jupyter Notebook

Once Jupyter Notebook is installed and launched, you can start programming in Python. Here are the steps for running Python code in Jupyter Notebook:

### 2.1 Starting Jupyter Notebook:

- Open your command line interface (CMD or Anaconda Prompt on Windows or Terminal on Mac/Linux or launch jupyter notebook via Anaconda navigator.).
- Enter the command `jupyter notebook` and press enter.
- This will open the Jupyter Notebook interface in your default web browser.

### 2.2 Creating a New Notebook and Running Python Code:

- In the Jupyter interface, click on "New" in the top right corner, then select "Python 3" to create a new notebook.
- In the newly opened notebook page, you will see an empty code cell.
- Enter your Python code into the cell, for example, `print("Hello and welcome to SWB Project 254!")`.
- Press 'Shift + Enter' or click the run button on the toolbar to execute the code in the cell.
- Press 'ctrl + S' or click the save button below 'File' button to save the file.

Just like that, you can now edit and run Python code in Jupyter Notebook. Jupyter Notebook is particularly suited for data analysis, machine learning projects, modeling, and other scientific computing tasks.