# Creating a Virtual Environment in Mamba for Jupyter Notebooks in Visual Studio Code

## Prerequisites

* Ensure that Miniforge is installed on your system.
* Visual Studio Code should be installed with the Python extension.

## Instructions

**Step 1: Open Miniforge Prompt**

* Instead of using the terminal in Visual Studio Code, open the Miniforge Prompt from your Start Menu or application launcher.

**Step 2: Create and Activate a New Mamba Environment**

* In the Miniforge Prompt, enter the following command to create a new environment with Python 3.10 and **ipykernel**. Important to specify ipykernel here, so you can use it as kernel to run ipynb files in VS Code. Replace **myenv** with your desired environment name:

mamba create -n myenv python=3.10 ipykernel

* Activate the newly created environment:

mamba activate myenv

**Step 3: Using the Environment in Visual Studio Code**

* Open Visual Studio Code.
* Open a Jupyter notebook file (**.ipynb**).
* If no kernel is selected yet, click on the kernel selector in the upper-right corner of the notebook (it might display 'Python 3' or another label).
* Choose the newly created environment, which should be listed there (e.g., "Python 3.10 ('myenv')").

## Additional Notes

* **Important**: To install additional packages in this environment, always activate the **myenv** environment first in the Miniforge Prompt, then use **pip** for installation:

mamba activate myenv

pip install package\_name

* + Use **pip install** instead of **mamba install** or **conda install** to avoid potential errors related to package dependencies, such as issues with the **requests** package.
* Always ensure that the **myenv** environment is activated in the Miniforge Prompt before performing any operations related to this environment.
* If you make significant changes to the environment (like installing new packages), you might need to restart Visual Studio Code to ensure the changes are recognized.

## References

<https://confluence.ecb.europa.eu/display/DISCA/Get+Python+Mambaforge>

<https://mamba.readthedocs.io/en/latest/user_guide/mamba.html>