Deep Learning

Installing Software

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Installing Python on Windows

1. Go to https://www.python.org/downloads/release/python-3114/
2. Download the Windows installer (64-bit)
3. Run the installer
4. Don’t forget to check the Add python.exe to PATH option before clicking on Install Now
5. Open a command line and enter python --version to confirm that Python3 has been installed on your machine

Testing Python

1. Create a working directory, for example C:\Dev\IA
2. Create a file named 00_hello_world.py in that directory
3. Open the file with a text editor and write the following line:

```
print("Hello world")
```

4. Save and close
5. Open the command line in the directory where the file is located and type

```
python hello_world.py
```

Installing and running VS Code

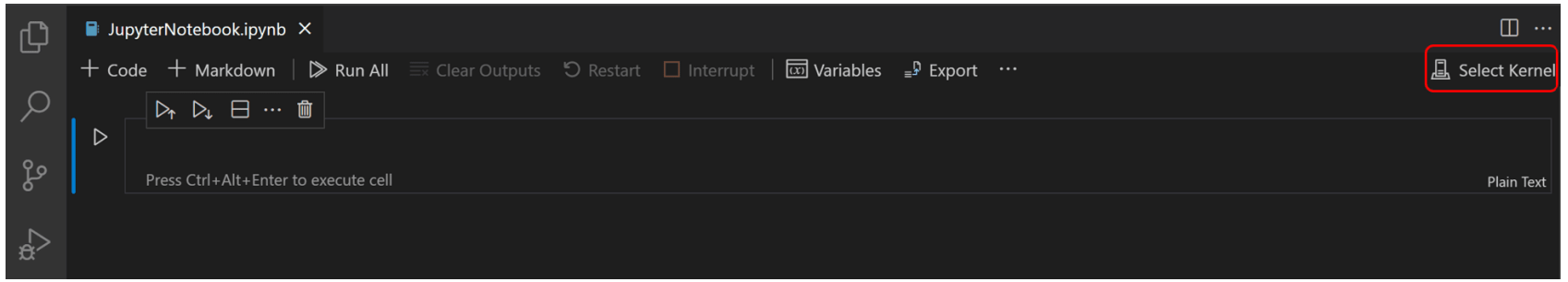
- Go to https://code.visualstudio.com/, download the installer and run it
- Open a command line window in your working directory
- Type code .
  - By starting VS Code in a folder, that folder becomes our "workspace"

Creating a Jupyter notebook

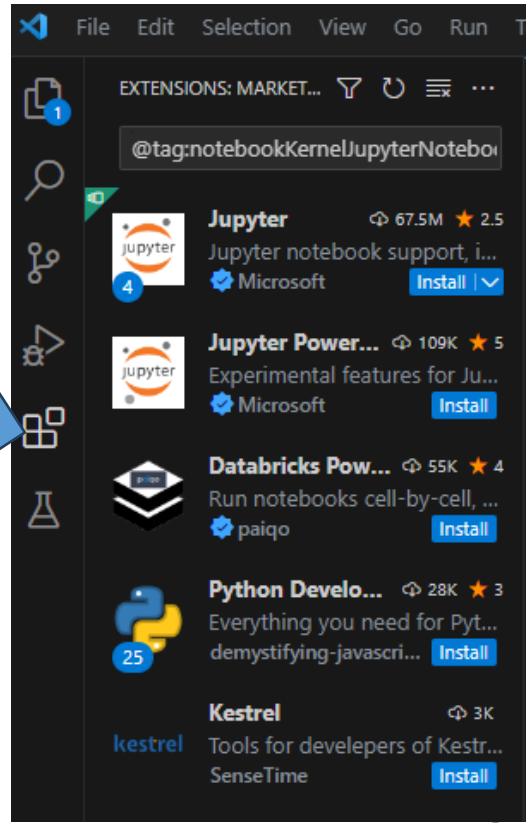
- File -> New File -> Jupyter Notebook
- The notebook is created, and a window opens in the bottom right side of the screen asking if we want to install the Python extension from Microsoft for Python language
- Click on Install

Select a Kernel

- Select a kernel using the kernel picker in the top right



- Click on the Extensions icon on the left panel
- Install “Jupyter”
- Click on Install

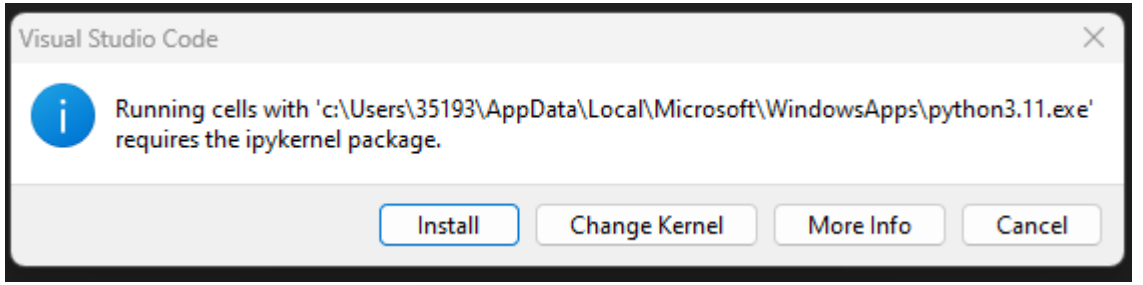


Running notebook cells

- Write the following code in the first cell

- Click on the triangle to run the code cell

- Click on Install in the dialog window below



Installing the necessary libraries

- Tensorflow (and Keras)

```
pip install tensorflow
```

- Matplotlib

```
pip install matplotlib
```

- Pandas

```
pip install pandas
```

- Scikit-learn

```
pip install –U scikit-learn
```

Open a command line and run these commands