

## **Core software**

Python (preferably 3.8 – 3.12)

Jupyter Notebook or JupyterLab (for running .ipynb files)

### **You can install Jupyter by running:**

```
bash
```

```
pip install notebook
```

### **and then start it with:**

```
bash
```

```
jupyter notebook
```

## **Required Python Libraries**

From the notebook's content (dependencies usually appear in import statements or requirements), the common libraries you may need are:

numpy – for numerical calculations

pandas – for data manipulation

matplotlib / seaborn – for plotting and visualization

scikit-learn – if the notebook contains machine learning models

openpyxl – for working with Excel files

tensorflow / pytorch – only if the notebook uses deep learning

### **You can install them with:**

```
bash
```

```
pip install numpy pandas matplotlib seaborn scikit-learn openpyxl
```

## **Environment Setup**

Anaconda (Recommended) – Provides Python, Jupyter Notebook, and common data-science libraries pre-installed.

Alternatively, use Python + pip manually.

### **Optional Tools**

VS Code or PyCharm (for better code editing experience)

Google Colab (no local setup required, just upload the .ipynb file and run online)