

Virtual environment

A virtual environment lets you isolate project dependencies, avoiding conflicts and ensuring reproducibility across projects.

1. Create a virtual environment:

```
python -m venv .venv
```

*(Assumes you name your virtual environment **.venv**)*

2. Activate your virtual environment:

```
source .venv/bin/active      (macOS/linux)  
.venv\Scripts\activate.bat  (Windows cmd.exe)
```

<https://docs.python.org/3.6/library/venv.html>

Install dependencies in VS Code

1. For Jupyter Notebook:

```
pip install ipykernel jupyter
```

ipykernel: enables kernel registration

jupyter: allows notebook execution in VS Code

2. For data analysis and visualization:

```
pip install pandas altair vega_datasets
```

pandas: for data manipulation

altair: for interactive visualization

vega_datasets: for sample datasets used with altair

Install Quarto

1. Visit <https://quarto.org/docs/get-started>
2. Select your operating system (Windows, macOS, or Linux)
3. Download the installer
4. Follow the installation wizard instructions
5. Verify installation:

```
quarto check  
quarto --version
```

Get Started

Install Quarto, then check out the tutorials to learn the basics.

Step 1

Install Quarto



Platform	Download	Size	SHA-256
Ubuntu 18+/Debian 10+	quarto-1.8.24-linux-amd64.deb	118.03 MB	e532f4c
Linux Arm64	quarto-1.8.24-linux-arm64.deb	118.2 MB	0b9546c
Mac OS	quarto-1.8.24-macos.pkg	199.38 MB	951d55d
Windows	quarto-1.8.24-win.msi	123.25 MB	511c2f1
Release notes and more downloads...			

Activate Quarto Extension in VS Code

1. Open VS Code
2. Go to the Extensions tab (⇧⌘X or Ctrl+Shift+X)
3. Search for: Quarto
4. Click Install on the “Quarto” extension by Quarto Dev Team
5. Restart VS Code if required

