Python + Streamlit Setup Guide

1. Check Python Installation

Open VS Code → Terminal → New Terminal.

Run:
python --version

If not installed, download Python 3.10+ from python.org and ensure 'Add Python to PATH' is selected.

2. Create Project Folder

File → Open Folder → Create a new folder named 'dpp-rl-dashboard'.

3. Create Virtual Environment

In terminal:

Windows:
python -m venv .venv
.venv\Scripts\activate

macOS/Linux:
python3 -m venv .venv
source .venv/bin/activate

You should see (.venv) in terminal.

4. Install Required Libraries

Run:
pip install pandas numpy streamlit plotly

Optional later:
pip install fastapi uvicorn

5. Test Python

Create file hello.py:
print('Python is working')

Run:
python hello.py

6. Create Streamlit App

Create file app.py with:

```
import streamlit as st
import pandas as pd

st.title('DPP Reverse Logistics Dashboard')

data = [
{'product_id': 'WM-001', 'net_value': 45, 'avoided_co2': 120},
{'product_id': 'WM-002', 'net_value': 10, 'avoided_co2': 60}
]

df = pd.DataFrame(data)
st.dataframe(df)
st.metric('Average Net Value', df['net_value'].mean())
st.metric('Total Avoided CO2', df['avoided_co2'].sum())
```

Run:
streamlit run app.py

Stop with Ctrl + C.

7. Select Interpreter

Press Ctrl + Shift + P → 'Python: Select Interpreter' → choose the one with .venv.