**DAY 5**

**🖥️ Day 5 – Installing Tech Stack for Fog Computing Simulation**

**1. Python**

**Why:** Main programming language for SimPy, NumPy, NetworkX, Matplotlib.  
**Version:** Python 3.10+ recommended.

**Installation:**

* **Windows/Mac:** Download from [python.org](https://www.python.org/downloads/) → install → check in terminal:

python --version

**2. Package Manager (pip)**

* Usually comes with Python. Check:

pip --version

* Upgrade pip:

python -m pip install --upgrade pip

**3. Required Python Libraries**

Install libraries needed for simulation and plotting:

pip install numpy matplotlib networkx simpy pandas

**4. Test Installation**

Create a simple Python script to ensure everything works:

import simpy

import numpy as np

import matplotlib.pyplot as plt

import networkx as nx

print("All libraries installed successfully!")

Run:

python test\_install.py

**✅ Outcome for Day 5**

* Python installed and up-to-date
* Libraries (NumPy, SimPy, NetworkX, Matplotlib, Pandas) installed
* IDE ready for coding