🧠 **Topic 11: pip**

◆ **Definition**

pip is Python's package manager, used to install, update, and manage Python libraries.

◆ **Terminologies**

- **Package:** Python library/module.

- **Install:** Add package to Python.

- **Upgrade:** Update package.

- **Uninstall:** Remove package.

◆ **Example + Commands**

Install package

pip install requests

Upgrade package

pip install --upgrade requests

Uninstall package

pip uninstall requests

◆ **Challenges**

Solved Challenge 1: Install numpy

pip install numpy

Solved Challenge 2: Upgrade pip itself

pip install --upgrade pip

Your 18 Challenges:

1. Install pandas.

2. Install matplotlib.

3. Uninstall a package.

4. List installed packages.

5. Install specific version of package.

6. Check package version.

7. Use pip to show package info.

8. Install package from requirements.txt.

9. Upgrade all packages.

10. Install a package quietly (-q).

11. Install a package in user directory.

12. Search for a package online.

13. Show outdated packages.

14. Freeze packages to a file.

15. Install package from GitHub.

16. Downgrade a package version.

17. Check if a package is installed.

18. Install virtualenv package