

## Python Development Environment & Fundamentals

### Clear Workflow - (very important)

- ① Create Project Directory
- ② Initialize the Git Repository
- ③ Open IDE
- ④ Configure python Interpreter
- ⑤ Create venv
- ⑥ Install dependencies
- ⑦ Write code
- ⑧ Test
- ⑨ Commit Changes
- ⑩ Push to git

### - env-method-

```
uv venv # create virtual environment  
venv\Scripts\activate # activate the venv  
uv pip sync requirements.txt # install the dependencies  
uv pip install (package) # install new package  
uv pip list # list the packages
```

### commit - git

```
git add requirement.txt  
git commit -m "Add request library for API calls"  
git push .
```

Errors -

① UV venv → 'uv' is not recognized as an internal or external command, operable program or batch  
UV is not installed in my system. That's the reason I got this error ( source: stack overflow & chatgpt)

Solution: in the powershell install UV

```
powershell -c "irm https://raw.githubusercontent.com/PowerShell/PSReadLine/master/install.ps1 | iex"
```

- ② Failed to build 'matplotlib == 3.7.2'
- The build backend returned an error.
  - Call to 'setuptools.build\_meta.build\_wheel' failed (exit code: 1)

my system has python (3.13.2) version, Which doesn't match with the versions of the packages

pandas == 2.3.2  
requests == 2.31.0  
matplotlib == 3.7.2

These 3 versions work with python 3.10 & 3.11  
Not on 3.13.

Solution: Need to downgrade python