

Web Development & Django

2.1: Getting Started with Django

Task: Exercise 2.1

Part 1: Research & Written Answers

1. Why Django is popular (2–3 sentences)

- Django is popular because it's a **batteries-included framework** with built-in tools for authentication, admin panels, and security.
- It follows the **MVT architecture** and **DRY principles**, making development fast, efficient, and scalable.
- Its strong **community support and documentation** make it beginner-friendly yet powerful for large projects.

2. Five large companies using Django

Company	Product/Service	Django Usage
Instagram	Social media platform	Handles massive user data, scalability, and fast content delivery
Pinterest	Visual discovery engine	Manages millions of pins and user interactions
Mozilla	Web browser & services	Uses Django for web apps and community platforms
Disqus	Comment hosting service	Powers threaded discussions and moderation tools
Dropbox	Cloud storage	Uses Django for parts of its web interface and file management

3. Scenarios: Use Django or not?

- **Multiple users** → ✓ Yes. Django has built-in authentication and session management.
- **Fast deployment & changes** → ✓ Yes. MVT + DRY principles make prototyping and iteration quick.
- **Basic app, no database/file ops** → ✗ No. Django would be overkill; Flask is better.
- **Build from scratch with full control** → ✗ No. Django enforces “the Django way,” limiting flexibility.
- **Big project, need support** → ✓ Yes. Large community, documentation, and scalability make Django ideal.

⚙️ Part 2: Environment Setup

1. Install Python

- Download Python 3.8.7 from python.org.
- Verify installation:

```
py --version
```

```
C:\Users\Saguna Nathani>py --version
Python 3.14.0
C:\Users\Saguna Nathani>
```

2. Create Virtual Environment

- In Command Prompt:

```
mkvirtualenv achievement2-practice
```

- Activate:

```
"C:\Users\Saguna Nathani\Envs\achievement2-practice\Scripts\activate.bat"
```

```
C:\WINDOWS\system32\cmd. x + ^
Microsoft Windows [Version 10.0.26100.7171]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Saguna Nathani>py --version
Python 3.14.0

C:\Users\Saguna Nathani>cd C:\Users\Saguna Nathani\Desktop\CF_Projects\cf-python-course
C:\Users\Saguna Nathani\Desktop\CF_Projects\cf-python-course>mkvirtualenv achievement2-practice
created virtual environment CPython3.14.0.final.0-64 in 844ms
  creator CPython3Windows(dest=C:\Users\Saguna Nathani\Envs\achievement2-practice, clear=False, no_vcs_ignore=False, global=False)
  seeder FromAppData(download=False, pip=bundle, via=copy, app_data_dir=C:\Users\Saguna Nathani\AppData\Local\pypa\virtualenv)
    added seed packages: pip==25.3
  activators BashActivator,BatchActivator,FishActivator,NushellActivator,PowerShellActivator,PythonActivator

(Achievement2-practice) C:\Users\Saguna Nathani\Desktop\CF_Projects\cf-python-course>"C:\Users\Saguna Nathani\Envs\achievement2-practice\Scripts\activate.bat"

(Achievement2-practice) C:\Users\Saguna Nathani\Desktop\CF_Projects\cf-python-course>if defined _OLD_VIRTUAL_PYTHONPATH (set "PYTHONPATH=%_OLD_VIRTUAL_PYTHONPATH%" )
else (set "PYTHONPATH=%")
(Achievement2-practice) C:\Users\Saguna Nathani\Desktop\CF_Projects\cf-python-course>
```

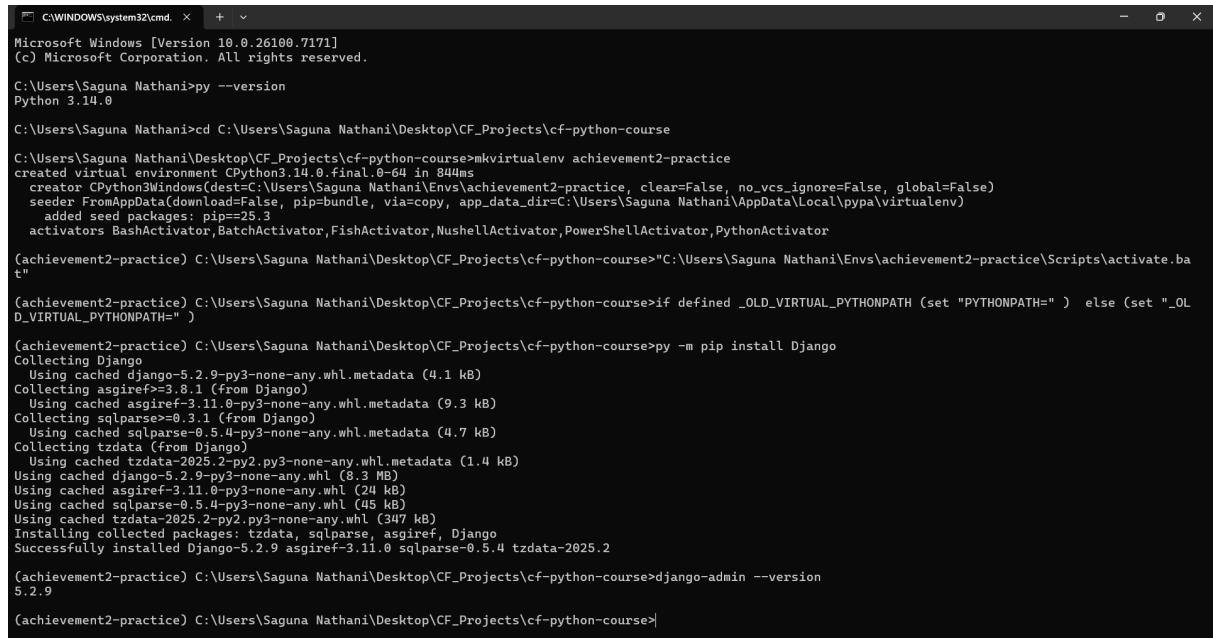
3. Install Django

- Inside the activated environment:

```
py -m pip install Django
```

- Verify:

```
django-admin --version
```



```
C:\WINDOWS\system32\cmd. x + v
Microsoft Windows [Version 10.0.26100.7171]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Saguna Nathani>py --version
Python 3.14.0

C:\Users\Saguna Nathani>cd C:\Users\Saguna Nathani\Desktop\CF_Projects\cf-python-course

C:\Users\Saguna Nathani\Desktop\CF_Projects\cf-python-course>mkvirtualenv achievement2-practice
created virtual environment CPython3.14.0.final.0-64 in 844ms
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  seed FromAppData(download=False, pip=bundle, via=copy, app_data_dir=C:\Users\Saguna Nathani\AppData\Local\pypa\virtualenv)
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(achievement2-practice) C:\Users\Saguna Nathani\Desktop\CF_Projects\cf-python-course>"C:\Users\Saguna Nathani\Envs\achievement2-practice\Scripts\activate.bat"

(achievement2-practice) C:\Users\Saguna Nathani\Desktop\CF_Projects\cf-python-course>if defined _OLD_VIRTUAL_PYTHONPATH (set "PYTHONPATH=" ) else (set "_OLD_VIRTUAL_PYTHONPATH=" )

(achievement2-practice) C:\Users\Saguna Nathani\Desktop\CF_Projects\cf-python-course>py -m pip install Django
Collecting Django
  Using cached django-5.2.9-py3-none-any.whl.metadata (4.1 kB)
Collecting asgiref>=3.8.1 (from Django)
  Using cached asgiref-3.11.0-py3-none-any.whl.metadata (9.3 kB)
Collecting sqlparse>=0.3.1 (from Django)
  Using cached sqlparse-0.5.4-py3-none-any.whl.metadata (4.7 kB)
Collecting tzdata (from Django)
  Using cached tzdata-2025.2-py2.py3-none-any.whl.metadata (1.4 kB)
Using cached django-5.2.9-py3-none-any.whl (8.3 MB)
Using cached asgiref-3.11.0-py3-none-any.whl (24 kB)
Using cached sqlparse-0.5.4-py3-none-any.whl (45 kB)
Using cached tzdata-2025.2-py2.py3-none-any.whl (347 kB)
Installing collected packages: tzdata, sqlparse, asgiref, Django
Successfully installed Django-5.2.9 asgiref-3.11.0 sqlparse-0.5.4 tzdata-2025.2

(achievement2-practice) C:\Users\Saguna Nathani\Desktop\CF_Projects\cf-python-course>django-admin --version
5.2.9

(achievement2-practice) C:\Users\Saguna Nathani\Desktop\CF_Projects\cf-python-course>
```