

CF 3 2.1

Getting Started with Django

Write two to three sentences on why Django is so popular among web developers.

Django is popular because of its "batteries-included" philosophy, which means it comes with many built-in tools for common web development tasks like user authentication and database management. This allows developers to build robust and secure web applications very quickly without having to create everything from scratch.

Its use of the Python programming language also makes it easy to learn and read.

Additionally, Django has a great and active community with extensive documentation and a wealth of learning resources, making it an excellent choice for beginners.

After some research, list five large companies that use Django. Specify what the company's product or service is and what they use Django for.

Instagram: Instagram was built on Python and Django from the beginning to handle its enormous scale, processing billions of user interactions and a massive amount of data.

Spotify: Spotify uses Django for its backend services, leveraging its speed and stability to deliver a reliable and personalized experience for its hundreds of millions of users.

The Washington Post: The Washington Post uses Django to power its massive and fast-paced news website, taking advantage of its ability to handle high traffic volumes and manage real-time content delivery.

NASA: NASA's official website, and many of its web applications, are built with Django, which helps them manage complex data and maintain a high level of security.

Dropbox: The Dropbox team initially chose Python and Django for their backend because it allowed them to develop the product quickly and efficiently, with features like user history and file sharing.

For each of the following scenarios, explain if you would use Django (and why or why not):

You need to develop a web application with multiple users.

Yes, I would use Django. Django comes with a robust, built-in authentication system that handles user registration, login, and password management out of the box. This makes it an ideal choice for any application that needs to manage multiple users securely and efficiently, saving me a significant amount of development time.

You need fast deployment and the ability to make changes as you proceed.

Yes, I would use Django. Django's "batteries-included" philosophy and high-level framework are designed for rapid development. It provides pre-built components and conventions for common web development tasks, allowing me to quickly build a prototype and then easily make changes and additions as the project evolves.

You need to build a very basic application, which doesn't require any database access or file operations.

No, I likely wouldn't use Django. While I could, Django is a powerful and comprehensive framework designed for complex, data-driven applications. Using it for a very basic application without a database would be considered "overkill." A simpler solution, like a micro-framework (e.g., Flask) or even a static website generator, would be a more efficient choice.

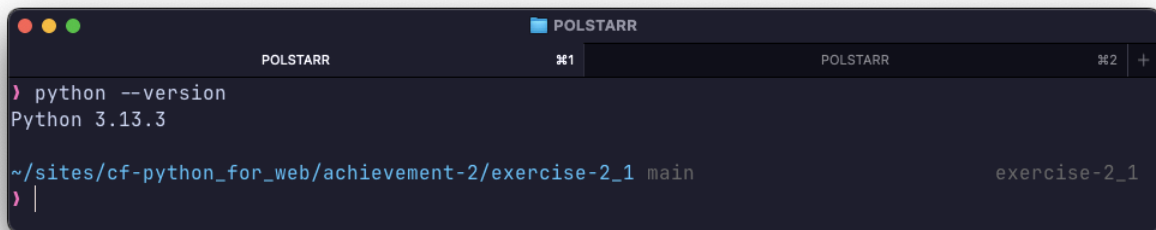
You want to build an application from scratch and want a lot of control over how it works.

No, I likely wouldn't use Django. Django has a more "opinionated" structure, meaning it provides a specific way of doing things. If I want full control over every single component and library, a micro-framework that lets me choose my own tools and build from the ground up would be a better fit.

You're about to start working on a big project and are afraid of getting stuck and needing additional support.

Yes, I would use Django. Django is known for its excellent and extensive documentation, a large and active community, and a wealth of third-party resources and tutorials. This strong support network makes it a great choice for large projects, as I am much less likely to get stuck without help and can easily find solutions to common problems.

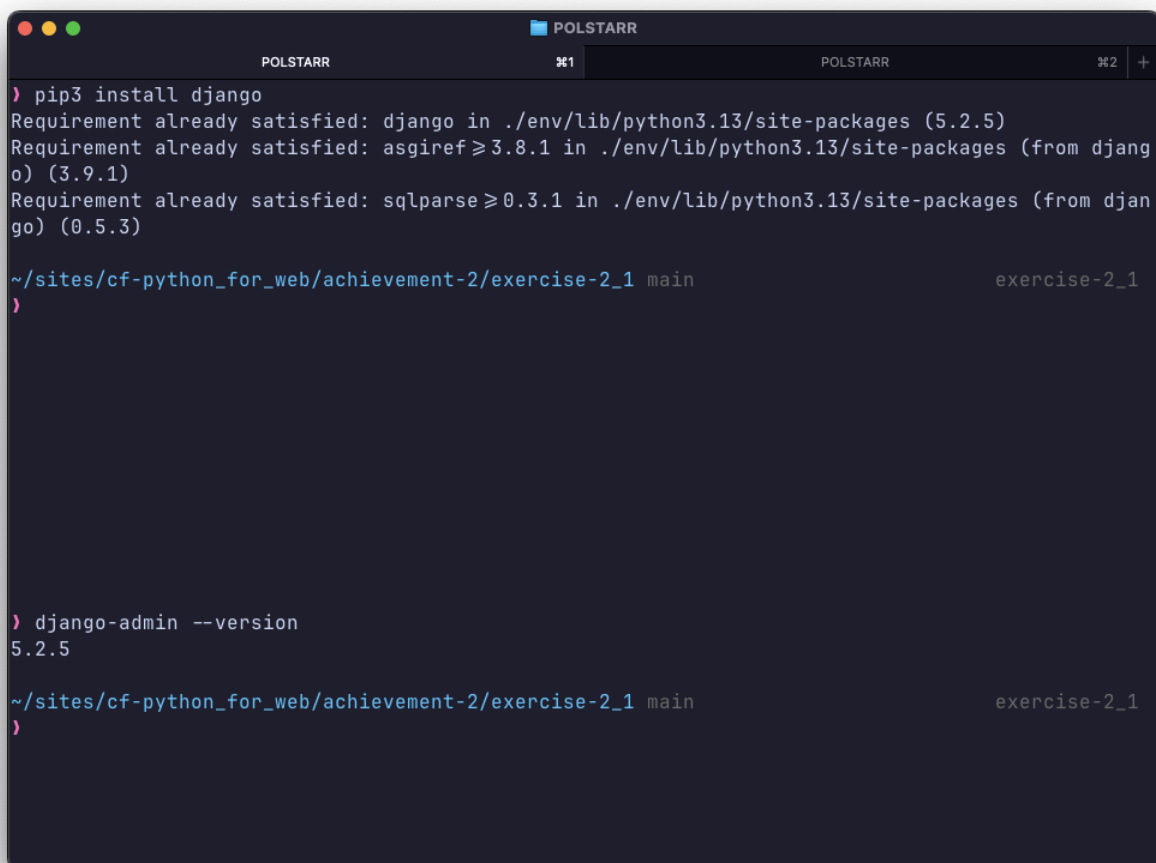
Python version.



```
POLSTARR
POLSTARR %1 POLSTARR %2 +
} python --version
Python 3.13.3

~/sites/cf-python_for_web/achievement-2/exercise-2_1 main exercise-2_1
}
```

Django version.



```
POLSTARR
POLSTARR %1 POLSTARR %2 +
} pip3 install django
Requirement already satisfied: django in ./env/lib/python3.13/site-packages (5.2.5)
Requirement already satisfied: asgiref≥3.8.1 in ./env/lib/python3.13/site-packages (from django) (3.9.1)
Requirement already satisfied: sqlparse≥0.3.1 in ./env/lib/python3.13/site-packages (from django) (0.5.3)

~/sites/cf-python_for_web/achievement-2/exercise-2_1 main exercise-2_1
}

} django-admin --version
5.2.5

~/sites/cf-python_for_web/achievement-2/exercise-2_1 main exercise-2_1
}
```