

Exercise 2.1
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1. Django is popular among web developers because it provides a high-level framework that encourages rapid development and clean, pragmatic design. Its built-in features, such as an admin interface, authentication, and ORM, simplify the development process, allowing developers to focus on writing the unique aspects of their application. Additionally, Django follows the "batteries-included" philosophy, offering a wide range of tools out-of-the-box.

2.

List Five Large Companies That Use Django

Research and Answer Example:

1. **Instagram:** A social media platform that uses Django for handling a large number of user interactions and to scale efficiently.
2. **Spotify:** A music streaming service that uses Django to manage its backend services and APIs.
3. **Pinterest:** A visual discovery and bookmarking tool that uses Django to handle its user management and content management systems.
4. **The Washington Post:** A major American daily newspaper that uses Django for its content management system to manage and deliver news articles.
5. **Mozilla:** The organization behind the Firefox browser, which uses Django to build and maintain several of its web services and support systems.

3.

Scenarios: Explain If You Would Use Django

Scenario 1: Developing a Web Application with Multiple Users Answer: Yes, I would use Django because it has built-in support for user authentication, session management, and permissions, making it ideal for handling multiple users securely and efficiently.

Scenario 2: Fast Deployment and Ability to Make Changes as You Proceed Answer: Yes, Django is suitable for this scenario because its modular design and built-in features allow for rapid development and easy modifications. Its robust admin interface also aids in quick deployment and management.

Scenario 3: Building a Very Basic Application Without Database Access or File Operations Answer: No, Django might be overkill for a very basic application that doesn't require a database or file operations. A simpler framework like Flask, which has fewer built-in features and is more lightweight, would be more appropriate.

Scenario 4: Building an Application from Scratch with a Lot of Control Answer: No, while Django is powerful, it imposes certain conventions and structures. For maximum control and

flexibility, a microframework like Flask would be better, as it allows you to choose your components and structure your application without predefined patterns.

Scenario 5: Starting a Big Project and Needing Additional Support Answer: Yes, Django is a good choice because it has a large, active community and extensive documentation. This support network can be invaluable when working on a large project and needing help with issues or guidance on best practices.

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maggieneubig@oki-202-171-227-181 achievement_2 % python -m venv achievement2-practice
zsh: command not found: python
maggieneubig@oki-202-171-227-181 achievement_2 % python3 -m venv achievement2-practice
maggieneubig@oki-202-171-227-181 achievement_2 % source achievement2-practice/bin/activate
(achievement2-practice) maggieneubig@oki-202-171-227-181 achievement_2 % █

(achievement2-practice) maggieneubig@oki-202-171-227-181 achievement_2 % pip install django
Collecting django
  Downloading Django-5.0.7-py3-none-any.whl.metadata (4.1 kB)
Collecting asgiref<4,>=3.7.0 (from django)
  Downloading asgiref-3.8.1-py3-none-any.whl.metadata (9.3 kB)
Collecting sqlparse>=0.3.1 (from django)
  Downloading sqlparse-0.5.1-py3-none-any.whl.metadata (3.9 kB)
Downloading Django-5.0.7-py3-none-any.whl (8.2 MB)
8.2/8.2 MB 10.1 MB/s eta 0:00:00
Downloading asgiref-3.8.1-py3-none-any.whl (23 kB)
Downloading sqlparse-0.5.1-py3-none-any.whl (44 kB)
44.2/44.2 kB 1.4 MB/s eta 0:00:00
Installing collected packages: sqlparse, asgiref, django
Successfully installed asgiref-3.8.1 django-5.0.7 sqlparse-0.5.1

[notice] A new release of pip is available: 24.0 -> 24.1.2
[notice] To update, run: pip install --upgrade pip
(achievement2-practice) maggieneubig@oki-202-171-227-181 achievement_2 % django-admin --version
5.0.7
(achievement2-practice) maggieneubig@oki-202-171-227-181 achievement_2 % █
```