

List of Django topics in a recommended sequence for learning:

1. Installation and Project Setup:

- a. Installing Django
- b. Creating a new Django project
- c. Understanding project structure

2. Models and Databases:

- a. Defining models and fields
- b. Creating database tables with migrations
- c. Querying the database with Django ORM

3. Admin Interface:

- a. Enabling the admin site
- b. Registering models in the admin
- c. Customizing the admin interface

4. Views and URLs:

- a. Creating views and handling requests
- b. URL patterns and routing
- c. Passing data to templates

5. Templates:

- a. Template syntax and tags
- b. Rendering dynamic content
- c. Template inheritance and layout

6. Static Files and Media:

- a. Managing static files (CSS, JS, images)
- b. Handling media uploads and serving

7. Forms:

- a. Creating HTML forms with Django Forms
- b. Handling form submissions and validation

8. Authentication and User Management:

- a. User authentication and login
- b. User registration and password reset.
- c. User permissions and authentication decorators

9. Class-Based Views (CBVs):

- a. Understanding CBVs and their advantages
- b. Using built-in CBVs for common use cases

10. Middleware:

- a. Introduction to middleware
- b. Creating custom middleware for request/response processing

11. Authentication and Permissions:

- a. Implementing custom authentication backends
- b. Role-based permissions and access control

12. Django REST Framework (optional but valuable for API development):

- a. Overview of Django REST Framework
- b. Creating APIs with DRF serializers and views
- c. Authentication and permissions in DRF

13. Deployment:

- a. Preparing the project for deployment
- b. Deploying Django applications on a server (e.g., using Apache, Nginx, Gunicorn, etc.)

14. Testing:

- a. Writing unit tests for Django applications
- b. Using Django's testing framework

15. Advanced Topics (optional and for more complex projects):

- a. Caching and performance optimization
- b. Signals and asynchronous tasks
- c. Django's built-in middleware and pluggable applications