

Here are some of the **most frequently asked interview questions** in **Django**, categorized based on different aspects:

1. Django Basics

- What is Django, and why is it used?
- How does Django differ from other web frameworks like Flask?
- Explain Django's MVT (Model-View-Template) architecture.
- What are Django's main features?
- How does Django handle requests and responses?

2. Models & Database

- What is a Django Model? How does it interact with the database?
- What are Django's ORM (Object-Relational Mapping) advantages?
- How do you define a ForeignKey, OneToOneField, and ManyToManyField?
- Explain the difference between `null=True` and `blank=True` in Django models.
- How do you make database migrations in Django?

3. Views & Templates

- What is the difference between function-based views (FBV) and class-based views (CBV)?
- How do you pass data from views to templates in Django?
- How does Django handle static and media files?
- What are template tags and filters in Django?

4. Forms & Validations

- What is the difference between Django forms and model forms?
- How do you validate form data in Django?
- How do you handle file uploads in Django?

5. Authentication & Authorization

- How does Django's authentication system work?
- How do you create custom user authentication in Django?

- What are Django's permissions and groups, and how do they work?

6. Middleware

- What is middleware in Django?
- How do you create custom middleware in Django?
- Explain some built-in middleware in Django.

7. Django REST Framework (DRF)

- What is Django REST Framework (DRF), and why is it used?
- How do you create an API in Django?
- What are serializers in DRF?
- What is the difference between ModelSerializer and Serializer?
- Explain token-based authentication in Django REST Framework.

8. Caching & Performance Optimization

- How does caching work in Django?
- What are different types of caching in Django?
- How do you optimize database queries in Django?

9. Deployment & Security

- How do you deploy a Django project?
- What security features does Django provide?
- How do you prevent SQL Injection and XSS in Django?
- How do you handle environment variables in Django?

10. Miscellaneous

- How does Django handle sessions?
- What is the difference between `get()` and `filter()` in Django ORM?
- What are Django signals, and how do you use them?
- How do you override Django admin functionalities?
- Explain Django's `pre_save` and `post_save` signals.

