

Daffodil International Professional Training Institute

Web Application Development with Python

Class Test - 01

Time: 1 Hours

Full Marks: 40

Part A: Short Questions (Any 10 × 2 = 20 Marks)

1. What is Django?
2. Explain the MTV architecture in Django.
3. Differentiate between a Django Project and a Django App.
4. What is the role of the settings.py file in a Django project?
5. How we do install app in INSTALLED_APPS.
6. What are migrations in Django? Why are they important?
7. What is the use of the manage.py file?
8. What is a superuser in Django? How can you create one?
9. Can multiple superusers exist in a single project? Justify your answer.
10. How do you create a new Django project?

Part B: Broad Questions (Any 4 × 5 = 20 Marks)

1. Explain the architecture of a Django project with folder structure and describe the role of each important file (settings.py, urls.py, models.py).
2. Write the steps and commands required to create a new Django project, add a new app, and register it in the project.
3. Write short notes on the following:
 - a) views.py
 - b) admin.py
 - c) urls.py (project vs app level)
4. Explain how Django handles requests and responses internally using MTV architecture.
5. With an example, show how to register a model in admin.py and make it appear in the Django Admin interface.

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Practical Task (Do All)

1. **Create a new Django Project** named exam_project. (3 marks)
2. **Create a new App** inside the project named employee. (3 marks)
3. Add the employee app into the INSTALLED_APPS list of settings.py. (2 marks)
4. In models.py of the employee app, create a model named Employee with the following fields: (10 marks)
 - name → CharField (max_length=100)
 - email → EmailField (unique=True)
 - phone → CharField (max_length=15)
 - department → CharField (max_length=50)
 - salary → IntegerField
5. Run the necessary commands for:
 - **makemigrations**
 - **migrate**(5 marks)
6. Register the Employee model in **admin.py** so it is visible in the Django Admin panel. (5 marks)
7. Create a **superuser** and login to the Django Admin panel to check the Employee model is working properly. (5 marks)
8. Run the development server on port 8080. (2 marks)