Event Name	**Hands-On Workshop On Django-Powered Full-Stack Development"**
Date	11th to 13th JUNE 2024(3 Days)
Target Audience	6th Sem ISE Students
Venue	6th Floor Seminar Hall, RVITM

Chief Guest Introduction

Morning Session: Introduction to Django Framework

Topics Covered:

1. **Introduction to Django Framework:**
   - What is Django?
   - Features and advantages of using Django.
   - Overview of Django's architecture (MTV pattern).
2. **Setting Up the Development Environment:**
   - Installation of Django and related tools.
   - Setting up a virtual environment.
   - Basic Django project structure and configuration.

Resource Person:

Mr. Chandrashekar Rao Kuthyar
Samgam One Connected Services Ltd
Bangalore

The morning session commenced with an introduction to Django, covering its core features and the benefits it offers for web development. The session provided a comprehensive overview of setting up a Django development environment and understanding the project structure.

Day 1: 11.06.2024

11:30 AM to 1:30 PM - Forenoon Session

Topics Covered:

1. **Django Models and Database Management:**

   - Understanding Django models and ORM (Object-Relational Mapping).
   - Creating and managing database migrations.
   - Querying and manipulating data using Django's ORM.
2. **Django Views and Templates:**

- Introduction to Django views and their role in request handling.
- Creating and rendering templates.
- Implementing dynamic content and template inheritance.

The forenoon session delved into Django models and database management, highlighting how to define data structures and interact with databases. It also covered Django views and templates, providing hands-on experience with creating dynamic web pages.

Day 2: 12.06.2024

Morning Session: Integrating Front-End Technologies

Topics Covered:

1. **Integrating Front-End Technologies:**
   - Basics of HTML, CSS, and JavaScript in Django projects.
   - Using Django template language to integrate front-end elements.
   - Best practices for responsive design and front-end optimization.

The morning session focused on integrating front-end technologies with Django. Participants learned how to enhance their web applications using HTML, CSS, and JavaScript, and how to use Django's templating system effectively.

11:30 AM to 1:30 PM - Forenoon Session

Topics Covered:

1. **User Authentication and Authorization:**

   - Implementing user authentication (login, logout, registration).
   - Managing user roles and permissions.
   - Securing web applications against common threats.

2. **Deployment Strategies and Best Practices:**

- Deploying Django applications on various platforms (Heroku, AWS, etc.).
- Configuring production settings and security practices.
- Monitoring and maintaining deployed applications.

The forenoon session addressed user authentication and authorization in Django, essential for managing user access and security. It also covered deployment strategies, preparing participants for launching their applications in real-world scenarios.

Day 3: 13.06.2024

Morning Session: Real-World Project Development and Case Studies
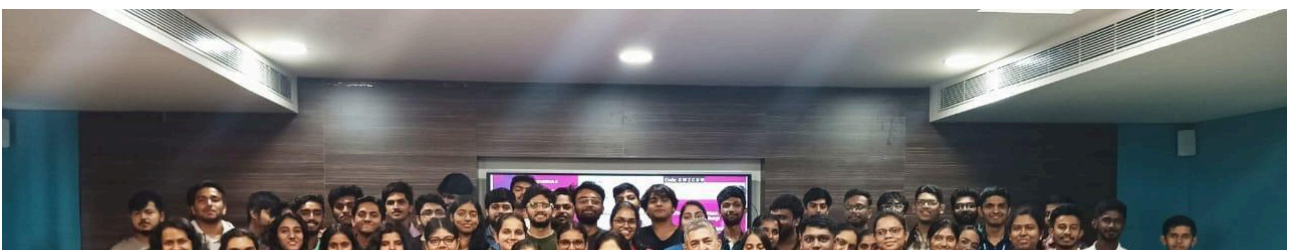
Topics Covered:

1. **Real-World Project Development:**

- Building a complete Django project from scratch.
- Integrating various Django components into a cohesive application.
- Testing and debugging techniques.

2. **Case Studies:**

- Analyzing successful Django projects and their architecture.
- Lessons learned from real-world implementations.
- Interactive discussion on challenges and solutions.

The morning session provided hands-on experience with developing a real-world Django project and examining case studies. Participants gained practical insights into the complexities and solutions involved in full stack development.

Afternoon Session: Q&A and Workshop Conclusion

The workshop concluded with a Q&A session where participants had the opportunity to clarify their doubts and discuss their experiences. The session provided valuable feedback on the workshop and summarized key takeaways. The program ended with a vote of thanks delivered by Ms. Neha Joshi, 6th Semester, Department of Computer Science, and a token of appreciation was presented to the resource persons.

Overall Summary:

The workshop on Django-powered full stack development offered a comprehensive introduction to both the theoretical and practical aspects of Django. Participants left with a strong understanding of Django's capabilities, the skills needed to build and deploy web applications, and insights into real-world project development. The interactive sessions and hands-on projects provided valuable experience, preparing attendees for future endeavors in full stack development.