Python Backend - Django with RestAPI Syllabus		
Module No.	**Topic**	**Subtopics**
1	**Introduction to Web**	1. What is WEB? 2. Features of WEB? 3. Introduction to HTML & HTML5 4. Introduction to CSS & CSS3 5. Introduction to JAVASCRIPT 6. Introduction to Bootstrap 7. Creating Basic Web Pages 8. Introduction to SCRIPTS
2	**Django Web Framework**	1. What is a Framework? 2. Introduction to Django 3. Django - Design Philosophies 4. History of Django 5. Django Features 6. Environment setup 7. Web Server
3	**Getting Started with Django**	1. Creating the first Project 2. Integrating the Project to PYCHARM & Other IDEs 3. The Project Structure 4. Running the in the server 5. Setting Up Your Project 6. Create and configure Django apps 7. Django App Structure 8. Configuring App in Project
4	**URLs and Views**	1. What is URL? 2. Define URL patterns 3. What is View 4. Configure URLs 5. Developing different views 6. URL dispatcher 7. Django URL Mapping 8. Configuring URLconf's 9. Django URL Functions 10. Path() 11. Re_path() 12. URL Patterns App Level and Project Level 13. Include()
5	**Django Templates**	1. Define Django Template 2. Django MVT Pattern 3. Django Template Configuration 4. render() function 5. Django Template Language 6. Template Tags or Template Variables 7. String interpolation 8. What is a context? 9. Define ContextProcessor? 10. Working with Static Files 11. include Static Files inside Template 12. Configuring static files 13. Creating Project with static resources 14. HTML, CSS, Images
6	**DJANGO MODEL**	1. Define Database? 2. Define DBMS, RDBMS? 3. What is Model? 4. Database Configuration 5. How to Check Django Database Connection 6. Configuration of MySQL Database 7. SQLite 8. Defining Django Models 9. Django Model Fields 10. Field Options 11. What is a Migration? 12. migrate Command 13. Creation of Super User 14. Register Model Inside Admin Interface 15. Difference between makemigrations and migrate 16. Define QuerySet 17. The Python Template Engine 18. Define Jinja2 19. Faker Module
7	**Django Forms or Model Forms**	1. What is Model Form? 2. Advantages of Django Forms 3. Creating Django Forms 4. CSRF 5. Creating a Login form 6. Creating Registration Form 7. Django Form Validation 8. What is Validation? 9. is_valid() 10. Clean Methods

8	Creating Project	1. What is HTTP? 2. Basic Features 3. http request methods 4. HTTP - URL Encoding 5. Django's Inbuilt Core Validators 6. Validators
9	Model Based Forms	1. How to develop MBF 2. all 3. Exclude-List 4. Include-Tuple 5. Creating SuperUser
10	Advanced Templates	1. Template Inheritance 2. Template Filters 3. Template tags for relative URLs 4. Block-endblock 5. extends 6. Advantages of Template Inheritance 7. Why Template Filters? 8. What is Template Filter? 9. How to Create Customized Template Filters?
11	Authentication & Authorization	1. Define Authentication 2. Define Authorization 3. Auth System 4. Enabling authentication 5. Auth system Consists 6. Bcrypt & argon2 7. Real time example on AA 8. Working with Admin
12	Class Based Views (CBV)	1. Function Based Views 2. Class based Views 3. Generic Class-Based Views 4. Simple Generic Views 5. Template View 6. List Views
13	Django File Upload	1. What is upload 2. Creating media_root & url 3. How to upload files 4. Upload images 5. Upload Audio Files 6. Upload Video Files
14	Django CRUD Operations	1. What is CRUD? 2. CREATE 3. READ 4. UPDATE 5. DELETE 6. CRUD with Project
15	Django Middleware	1. Define Middleware 2. Builtin Middleware 3. Customizing Middleware 4. Middleware Methods
16	How to Send Email in a Django	1. What is mail system 2. Mail Requirements 3. send_mail() 4. Configuring Mail Settings 5. Sending Email 6. Other Email Functions
17	Outputting CSV with Django	1. What is CSV? 2. CSV Using Models 3. Creating a Live CSV Project

18	**Outputting PDF with Django**	1. What is PDF? 2. Creating a Live PDF Project
19	**Django Crispy Forms**	1. What is Crisply Form? 2. Installing Crispy form 3. Template Packs 4. Login Crispy form 5. Registration Crispy forms 6. Crispy with Bootstrap
20	**GIT & Github**	1. What is git? 2. Define Version Control System 3. Git Installation 4. Git commands 5. Define Github 6. Pulling and Pushing
21	**Live Environment**	
22	**Deploying Django Apps & Heroku**	1. What is deployment? 2. Creating a Project 3. Deploying Django App at product level 4. Install heroku CLI 5. Virtual Environment 6. Introduction to HEROKU 7. Deploy at HEROKU 8. $pip freeze
23	**Introduction to Web Services**	1. What is Web Service? 2. Types of WebServices 3. SOAP based WebServices? 4. Features and Limitations? 5. Introduction to XML
24	**Introduction to REST API(Restful Services)**	1. What is REST? 2. What is API? 3. What is JSON? 4. HTTP Status Codes? 5. HTTP Methods for RESTful Services 6. POST 7. PUT 8. GET 9. DELETE
25	**Overview of Project+ Resume**	1. Web Project Implementation 2. Resume Preparation 3. Interview Questions