

Web Development with Django

HTML — Structuring the Web

- Introduction to HTML
- Basics Tags
- HTML tables
- HTML forms
- HTML Div
- Multimedia and embedding

CSS — Styling the Web

- Introduction to CSS
- CSS Building Block
- Styling Text
- CSS Layout
- CSS Selector

JavaScript — Dynamic client-side scripting

- Introduction to JavaScript
- JavaScript building blocks
- JavaScript objects
- Asynchronous JavaScript
- Client-side web APIs

Basics of Django — Python Web Framework

- Introduction to Django
- Features of Django
- Installing Django
- MVC and MVT model

Django Forms

- The Django Form class
- Rendering Django forms as html
- Built in fields and built in widgets
- Validating Django forms
- Building forms for Django models

- Handling File uploads

Routing

- Understanding urls.py and the purpose of it
- Creating urls with names and namespaces
- Building dynamic urls
- Mapping of the urls with the view functions

Model and Template

- What is ORM?
- Benefits of ORM
- Connecting a Django project to a database
- Visualize business data as Django models
- Relationship between Django models - One to One, Many to One, Many to Many
- Saving, updating, deleting, and querying Django models
- Writing raw SQL queries for the Django model
- Need for templates
- Django convention of storing templates
- Using conditionals and looping in Django templates

Session Management

- stateless protocol
- Django session management built in app
- Session vs. Cookie
- Storing attributes in a session
- Retrieving from the same session
- Destroying a session using 'flush'

Web Application Security

- SQL injection protection
- Clickjacking protection
- Cross site scripting (XSS)
- Cross site request forgery (CSRF) protection
- Cryptographic Signing

Django Admin

- Creating super users
- Accessing the backend admin app
- Registering custom Django models
- Customizing admin rendering of Django models
- Customizing Django admin templates look and feel

REST Web Service

- Web Services and REST
- JSON as the format of data exchange
- Django REST framework

Deploying Django App

- What is a production environment?
- Choosing a hosting provider
- Getting your website ready to publish