Web Development

Course: In this module, students make end to end application - graphical user interface interacting with the database

Duration: 24 hours

Pre-Requisites: You can easily follow along with this tutorial if you understand the basics of Python and know about loops, function, classes, etc., and some knowledge of bash or command line.

It Will be helpful if you know Basics of HTML.

INTRODUCTION

Django: Django is a high-level Python Web framework that encourages rapid development and clean, pragmatic design. Built by experienced developers, it takes care of much of the hassle of Web development, so you can focus on writing your app without needing to reinvent the wheel. It's free and open source.

With Django, you can take Web applications from concept to launch in a matter of hours. Django takes care of much of the hassle of Web development, so you can focus on writing your app without needing to reinvent the wheel.

Structured Query Language: SQL is a domain specific language that SQL lets you access and manipulate databases

Course Over View: The goal of this tutorial is to build a Web application where the Web content can be created and updated through an administration panel. Web contents are displayed on the page and can be deleted if needed. Overall application provides CRUD (Create, Read, Update, Delete) functionality.

This Entire Course on Django does not use any Front-End technologies like JavaScript, CSS, etc. but focuses on basic yet essential concepts that are needed in every Django Web Development.

LEARNINGS

Once you Learn Basics of Django You can start by making an e-commerce website with all functionalities like Cart feature, integrating payment gateway, etc. Once you are comfortable with Django, move to DRF or Django Rest Framework. DRF is used for making Rest API.

You will learn how to create and add models and database onto your web app. Database driven dynamic website – You will learn to create a complete database-driven website from scratch in the 2nd section of this course. You will learn how to create and add models and database onto your web app.

There are Few Points that we will Cover in Django Web-Development Course -

1. Django Admin Interface
2. Django Database
3. Django Redirect
4. Django Form Handling and Validation

5. Django File Upload
6. Django Bootstrap
7. Django Static File Handling
8. Django CRUD
9. Django ORM
10. Django Admin Customization

Apart from this, students will be **i**ntroduced to **database (Structured Query Language)**. Perform various operation on tables and data. Retrieve the data to be displayed on the web page. They shall also perform operations like sorting and searching the data.

Required Setup:

1. **Text-Editor:** Any Text-Editor like Sublime Text or Visual Studio Code can be used. For the following project, we shall use PyCharm**.**

2. **Python 3:** The latest version of Python can be downloaded from Python.org

3. **Sql Lite:** SQLite is a relational database management system contained in a C library. In contrast to many other database management systems, SQLite is not a client–server database engine.

4. **Django Library:** For Installing the required package You can use 'pip install django' to install Django in your specific Virtual Environment.