Web API(using python and django)

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Sypnosis

Tittle of Project:

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1. Introduction:

Web API is a very popular framework nowadays, which helps us to build HTTP services. API stands for Application Programming Interface. A Web API is an application programming interface of Web. A Browser API can extend the functionality of a web browser. A Server API can extend the functionality of a web server.

2. Objective:

In this project we will be developing a Web API using python where we can vote, answer multiple choice questions and surveys, login as admin to review activity and do changes.

To provide user a simple and easy interface for voting, answering questions or taking surveys.

3. Languages & Softwares Used:

Languages: **Python**

Django

HTML

CSS

Software: Visual Studio Code (For writing code)

4. Installation:

Installing python:

Go to **https://www.python.org/** and click on download latest python version and install it in your system.

Installing django:

Go to https://www.djangoproject.com/ and click on download latest Django version and install it on your system.

Or

After installing python you can simply run the following command in Visual Studio code(vsc) py –m pip install django and it will install django in your system.

You can verify which version of django is installed by running following command in a shell prompt

py –m django –version

Installing HTML and CSS:

Install HTML and CSS extensions from VS code extensions.

5. Description:

In this project we will be using python, django, html and css for creating a Web API.

Django is a high-level Python web framework that enables rapid development of secure and maintainable websites. Built by experienced developers, 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. It is free and open source, has a thriving and active community, great documentation, and many options for free and paid-for support.

We will be using Django to create a development server, a lightweight web server written purely in Python.

Creating a project:

We have to first complete initial setup where we auto generate some code that establishes a Django project- a collection of settings for an instance of Django, including database configuration, Django-specific options and application-specific settings.

From the command line, **cd** into a directory where you'd like to store your code, then run the following command:

django-admin startproject mysite

This will create a **mysite** directory in your current directory.

To verify the project change into outer mysite directory and run the following command

py manage.py runserver

This will start Django development server. Now that the server is running, visit http://127.0.0.1:8000/ with your web browser. You'll see "Congratulations!" page, with a rocket taking off.

Creating Polls app:

To create polls app make sure we are in same directory as manage.py and type command

py manage.py startapp polls

This will create directory polls.

Database setup:

Run the following command to setup database

py manage.py migrate

Creating a super user/admin user:

Run the following command:

py manage.py createsuperuser

Enter your desire username and press Enter

Enter your desired password and confirm the password.

Now superuser is created successfully.

Now the basic things are done and we can start developing our Web API.

6. Future scope of project:

As day by day we are advancing in technology and everything is available online to us like we can buy grocery, cloths, electronic appliances, furniture, toys and studies, books nearly everything is available online to us. And due to corona there were lockdowns students couldn't go to schools, colleges and that's when online studies came in and helped students continue their schools and colleges. Shopping or buying grocery was only possible thru online medium. Even for voting people were scared to go because of corona.
In this project we are providing online platform for students to give exams and for people to vote. You can also take surveys and check opinions of others.

7. Summary:

We will be using Python, django, html and css for creating a Web API where we can asnwer questions, vote and take surveys. It has admin user login to edit, create, delete or review changes.