Introduction to Django

1. Django is a Python web framework that enables rapid development of secure and maintainable websites.
2. Follows the model–template–views architectural pattern.
3. Created in the year 2003
4. It’s free and open source.
5. It is maintained by the Django Software Foundation (DSF), an independent organization established in the US.
6. Visit https://www.djangoproject.com/ for more information

Top Backend Technologies

Node.js - is an open-source, cross-platform JavaScript framework that is used to build server-side and networking applications.

Django - is an open-source framework based on Python. It is a web framework from the server's side. Django follows the Model Template View (MTV) architecture.

Spring Boot - is an open-source web framework based on Java that allows developers to build production-grade and standalone applications.

ASP.NET - is an open source web framework, created by Microsoft, for building modern web apps and services that run on macOS, Linux, Windows, and Docker.

Laravel - is a PHP framework that provides a built-in user interface, flexibility, API support, creativity, and an extensive range of various libraries that help in the development process of secure web applications

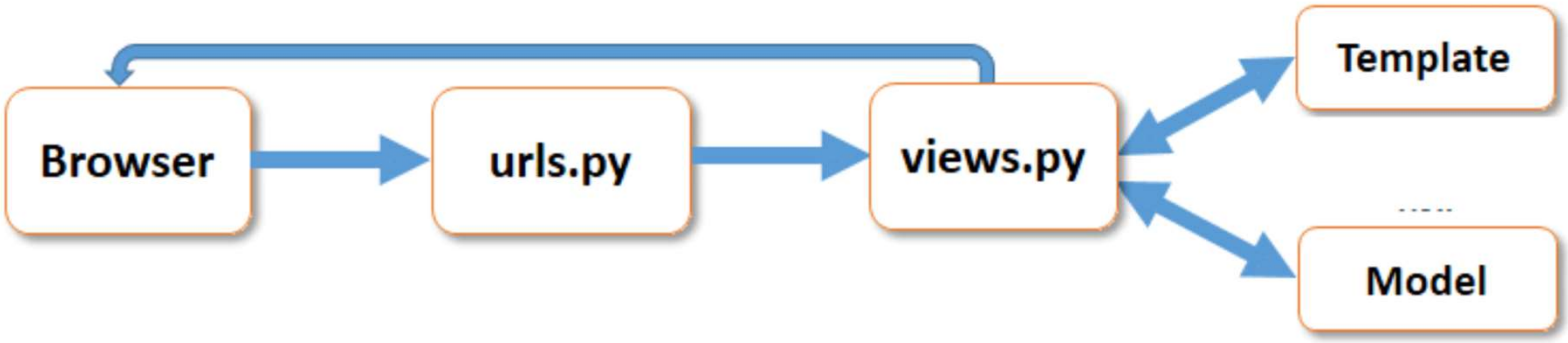
The Course Prerequisites

1. Knowledge of Python Programming
2. Understanding of HTML, CSS and JavaScript
3. Basic idea of any database

Django Framework

Model – View – Template

(Data – Business Logic – Display Page)



Install Python and VS Code

1. Goto https://www.python.org/downloads/ and download pthon
2. While installling python select checkbox to add path
3. Goto https://code.visualstudio.com/download and download Visual Studio Code
4. Install and then open visual Studio code
5. Click extension icon on the left and then install python (from Microsoft)
6. Close visual studio

Setup Virtual Environment

Search and open powershell as administrator and run following command
Set-ExecutionPolicy RemoteSigned
then press A

Create a folder myproj on desktop
open visual studio code and then open folder myproj from desktop
Goto view menu > click terminal
In terminal type,

pip install virtualenv
python -m venv myenv
./myenv/scripts/activate (for windows users)
source ./myenv/bin/activate (for mac users)

Type deactivate in terminal to come out of virtual environment

Install django and create project

pip install django
pip list (verify that django has been installed)

django-admin startproject myproj .

python manage.py startapp core
mkdir templates
python manage.py migrate (observe sqlite file on the left)

Create base html page in templates

Base html

{% block content %}

{% endblock %}

……

Go to preferences > settings > emmet > include language > add item – Django-html : html

Create home,contact,about html in templates

{% extends 'base.html'%}

{% block content %}

html content here

{% endblock %}

Add functions in views.py

```
from django.shortcuts import render
def home(request):
    return render(request,"home.html")
def services(request):
    return render(request,"services.html")
def faq(request):
    return render(request,"faq.html")
def contact(request):
    return render(request,"contact.html")
```

Update url.py

```
from django.contrib import admin
from django.urls import path
from core import views
urlpatterns = [
    path('admin/', admin.site.urls),
    path('',views.home),
    path('services/',views.services),
    path('faq/',views.faq),
    path('contact/',views.contact),
]
```

Open the website

In terminal type python manage.py runserver

Open browser and type http://locahost:8000/