## **WEEK 13 – Django App with Navigation Menu (Home, Dashboard, Contact Us)**

### 🎯 ****Goal****

Build a Django web application that displays:

* A **navigation bar** using Bootstrap
* Three pages: **Home**, **Dashboard**, and **Contact Us**

## 🔧 Step-by-Step Instructions

### ✅ STEP 1: Check Python Version

📍 In Command Prompt (CMD) or Terminal:

python --version

Make sure it shows Python **3.x**

### ✅ STEP 2: Install Virtual Environment

py -m pip install virtualenv

### What is virtualenv?

virtualenv is a **predefined tool** that allows you to create isolated Python environments. This helps in managing dependencies for different projects without causing conflicts between them. It creates a separate directory with its own Python binary and can install packages independently of the global Python environment.

**💡 What’s happening?**

* py: Runs Python.
* -m pip install virtualenv: Uses Python's package installer (pip) to **install a tool** called virtualenv.

👉 virtualenv lets you **create an isolated space** to work on your project, so it doesn't interfere with other projects or your system Python.

### ✅ STEP 3: Create Virtual Environment

py -m venv second

📁 This will create a folder second/ with your isolated environment.

**💡 What’s happening?**

* venv is a built-in module in Python that helps create **virtual environments**.
* second: The name of your virtual environment folder.

📁 This creates a folder named second/, which contains:

* A **copy of Python**
* Its own pip installer
* Scripts to activate the environment

🎯 So you now have a **clean room** just for this project, without messing up other Python projects on your system.

### ✅ STEP 4: Activate Virtual Environment

.\second\Scripts\activate

🔄 If it works, you'll see your terminal change to:

(second) C:\Users\YourName>

**💡 What’s happening?**

* You're **entering** the virtual environment.
* It changes your terminal so that any Python or pip command will run **inside the virtual space** (second) and not in the global/system Python.

🎯 Once activated:

* You'll see something like this in the terminal:  
  (second) C:\Users\YourName\ProjectFolder>
* Now you can safely install Django and other packages just for this project.

### ✅ STEP 5: Install Django

pip install django

### ✅ STEP 6: Create a Django Project

django-admin startproject program13

This creates:

program13/

├── manage.py

└── program13/

├── \_\_init\_\_.py

├── settings.py

├── urls.py

├── asgi.py

└── wsgi.py

└── templates folder

### ✅ STEP 7: Go Into the Project Folder

cd program13

Now you're in the same folder as manage.py

### ✅ STEP 8: Create a templates Folder

📁 Inside this program13/ folder (where manage.py is), create a folder named:

templates

Inside templates, create these 3 files:

* home.html
* dashboard.html
* contactUs.html

### ✅ STEP 9: Add HTML Code

📄 In each file, paste this:

**home.html**

<!DOCTYPE html>

<html>

<head>

<title>Home</title>

<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/css/bootstrap.min.css" rel="stylesheet">

</head>

<body>

<h1 class="text-center">Welcome to CMRIT</h1>

<nav class="navbar navbar-expand-lg bg-body-tertiary">

<div class="container-fluid">

<a class="navbar-brand" href="#">CMRIT</a>

<div class="collapse navbar-collapse" id="navbarNav">

<ul class="navbar-nav">

<li><a class="nav-link" href="{% url 'home' %}">Home</a></li>

<li><a class="nav-link" href="{% url 'dashboard' %}">Dashboard</a></li>

<li><a class="nav-link" href="{% url 'contactUs' %}">Contact Us</a></li>

</ul>

</div>

</div>

</nav>

</body>

</html>

**dashboard.html**

<!DOCTYPE html>

<html>

<head><title>Dashboard</title></head>

<body>

<h1>Welcome to Dashboard</h1>

<a href="{% url 'home' %}">Back to home</a>

</body>

</html>

**contactUs.html**

<!DOCTYPE html>

<html>

<head><title>Contact Us</title></head>

<body>

<h1>CMR Institute of Technology, Medchal, Hyderabad</h1>

<a href="{% url 'home' %}">Back to home</a>

</body>

</html>

### ✅ STEP 10: Edit settings.py to Link Templates

📄 Open: program13/program13/settings.py

1. At the top, add:

import os

1. Find the TEMPLATES section and change:

'DIRS': [],

➡️ To:

python

'DIRS': [BASE\_DIR / 'program13' / 'templates'],

### ✅ STEP 11: Create index.py for Views

📄 Inside the **inner** program13/ folder (the one with urls.py), create a file called index.py  
Paste this:

from django.shortcuts import render

def home(request):

return render(request, 'home.html')

def dashboard(request):

return render(request, 'dashboard.html')

def contactUs(request):

return render(request, 'contactUs.html')

### ✅ STEP 12: Update urls.py

📄 Open: program13/program13/urls.py  
Replace everything with this:

from django.contrib import admin

from django.urls import path

from . import index

urlpatterns = [

path('', index.home, name='home'),

path('dashboard/', index.dashboard, name='dashboard'),

path('contactUs/', index.contactUs, name='contactUs'),

]

### ✅ STEP 13: Run the Server

📍 Make sure you're still in the folder where manage.py is (outer program13):

py manage.py runserver

You’ll see:

Starting development server at http://127.0.0.1:8000/

### ✅ STEP 14: Open in Browser

Visit these in your browser:

| **Page** | **URL** |
| --- | --- |
| Home | <http://127.0.0.1:8000/> |
| Dashboard | <http://127.0.0.1:8000/dashboard/> |
| Contact Us | <http://127.0.0.1:8000/contactUs/> |





