

LAB#06

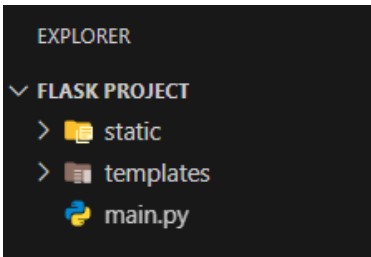
Task:

Introduction to Flask framework including basic concept of backend along with syntax, folder structure including routes management and control structures

Method:

Make a new folder by any name (“Flask Project”), open it and make two folders inside it, named “static” and “templates”. Open them in Visual Studio Code, then make a file named main.py

1. Folders



2. Flask Code – app.py

```
from flask import Flask, render_template
app = Flask(__name__)

@app.route('/')
def home():
    return render_template('index.html')

if __name__ == '__main__':
    app.run(debug=True)
```

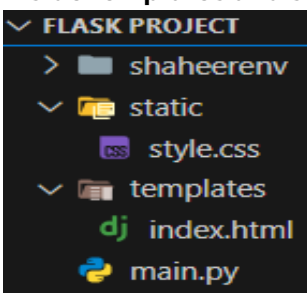
3. Open the terminal and Enter the command “python -m venv shaheerenv” and activate it.

```
PS D:\Visual Studio Codes\University Projects\ICT Lab\Flask Project> python -m venv shaheerenv
PS D:\Visual Studio Codes\University Projects\ICT Lab\Flask Project> .\shaheerenv\Scripts\Activate.ps1
(shaheerenv) PS D:\Visual Studio Codes\University Projects\ICT Lab\Flask Project>
```

4. After activating the virtual environment you created before run the command “pip install flask”

```
(shaheerenv) PS D:\Visual Studio Codes\University Projects\ICT Lab\Flask Project> pip install flask
Collecting flask
  Using cached flask-3.1.1-py3-none-any.whl.metadata (3.0 kB)
Collecting blinker>=1.9.0 (from flask)
  Using cached blinker-1.9.0-py3-none-any.whl.metadata (1.6 kB)
Collecting click>=8.1.3 (from flask)
  Downloading click-8.2.0-py3-none-any.whl.metadata (2.5 kB)
Collecting itsdangerous>=2.2.0 (from flask)
  Using cached itsdangerous-2.2.0-py3-none-any.whl.metadata (1.9 kB)
Collecting jinja2>=3.1.2 (from flask)
```

5. Now the FLASK is installed in your virtual environment, you can now place your HTML and CSS files inside templates and static folder



Make sure that the webpage, CSS and images all show up when we run “app.py”. For this, we need to make changes to the html files that contain our webpages.

HTML Code:

```
main.py | index.html | style.css
templates > dj index.html
3 <head>
7 <link rel="stylesheet" href="{ url_for('static', filename='style.css') }}">
8
9 </head>
10 <body>
11
12
13 <header>
14 <div class="container">
15 <h1 class="logo">SJC FITNESS CLUB</h1>
16 <nav>
17 <ul>
18 <li><a href="#">Home</a></li>
19 <li><a href="#about">About</a></li>
20 <li><a href="#classes">Classes</a></li>
21 <li><a href="#trainers">Trainers</a></li>
22 <li><a href="#membership">Membership</a></li>
23 <li><a href="#gallery">Gallery</a></li>
24 <li><a href="#contact">Contact</a></li>
25 </ul>
26
27 </nav>
28 </div>
29 </header>
```

Terminal:

```
PS D:\Visual Studio Codes\University Projects\ICT Lab\Flask Project> & "C:/Program Files/Python312/python.exe" "d:/Visua
* Serving Flask app 'main'
* Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on http://127.0.0.1:5000
Press CTRL+C to quit
* Restarting with stat
* Debugger is active!
* Debugger PIN: 109-797-655
127.0.0.1 - - [17/May/2025 15:59:59] "GET / HTTP/1.1" 200 -
127.0.0.1 - - [17/May/2025 15:59:59] "GET /static/style.css HTTP/1.1" 304 -
127.0.0.1 - - [17/May/2025 16:00:59] "GET / HTTP/1.1" 200 -
127.0.0.1 - - [17/May/2025 16:00:59] "GET /static/style.css HTTP/1.1" 200 -
127.0.0.1 - - [17/May/2025 16:01:03] "GET / HTTP/1.1" 200 -
127.0.0.1 - - [17/May/2025 16:01:03] "GET /static/style.css HTTP/1.1" 304 -
127.0.0.1 - - [17/May/2025 16:02:46] "GET / HTTP/1.1" 200 -
127.0.0.1 - - [17/May/2025 16:02:46] "GET /static/style.css HTTP/1.1" 200 -
127.0.0.1 - - [17/May/2025 16:03:15] "GET / HTTP/1.1" 200 -
```

Final Output:

