**1.Create a Flask application that displays "Hello, World!" on the homepage.**

from flask import Flask

app = Flask(\_*name*\_)

@app.route("/")

def hello():

return "Hello, World!"

if \_*name*\_ == "\_*main*\_":

app.run()

2. **Write a Flask route that takes a name parameter and returns "Hello, [name]!" as plain text.**

from flask import Flask

app = Flask(\_\_name\_\_)

@app.route("/hello/<name>")

def hello(name):

return f"Hello, {name}!"

if \_\_name\_\_ == "\_\_main\_\_":

app.run()

3. **Write a Flask route that takes a number parameter and returns the square of that number as plain text.**

from flask import Flask

app = Flask(\_\_name\_\_)

@app.route("/square/<int:num>")

def square(num):

return str(num\*\*2)

if \_\_name\_\_ == "\_\_main\_\_":

app.run()

4. **Write a Flask route that displays a simple HTML form that asks for a name and returns "Hello, [name]!" when submitted.**

from flask import Flask, request, render\_template

app = Flask(\_\_name\_\_)

@app.route("/", methods=["GET", "POST"])

def hello():

if request.method == "POST":

name = request.form["name"]

return f"Hello, {name}!"

else:

return render\_template("index.html")

if \_\_name\_\_ == "\_\_main\_\_":

app.run()

The corresponding index.html file should contain the following:

<!doctype html>

<html>

<body>

<form method="POST">

<label for="name">Name:</label>

<input type="text" id="name" name="name">

<input type="submit" value="Submit">

</form>

</body>

</html>

5. **Write a Flask route that displays a list of names in an HTML unordered list.**

from flask import Flask, render\_template

app = Flask(\_\_name\_\_)

@app.route("/names")

def names():

names = [("Alice", 25), ("Bob", 30), ("Charlie", 35)]

return render\_template("names.html", names=names)

if \_\_name\_\_ == "\_\_main\_\_":

app.run()

The corresponding names.html file should contain the following:

<!doctype html>

<html>

<body>

<table>

<thead>

<tr>

<th>Name</th>

<th>Age</th>

</tr>

</thead>

<tbody>

{% for name in names %}

<tr>

<td>{{ name[0] }}</td>

<td>{{ name[1] }}</td>

</tr>

{% endfor %}

</tbody>

</table>

</body>

</html>

6. **Write a Flask route that displays a list of names in a table.**

from flask import Flask, render\_template

app = Flask(\_\_name\_\_)

@app.route("/names")

def names():

names = ["Alice", "Bob", "Charlie"]

return render\_template("names.html", names=names)

if \_\_name\_\_ == "\_\_main\_\_":

app.run()

The corresponding names.html file should contain the following:

<!doctype html>

<html>

<body>

<form method="POST">

<label for="name">Name:</label>

<select id="name" name="name">

{% for name in names %}

<option value="{{ name }}">{{ name }}</option>

{% endfor %}

</select>

<input type="submit" value="Submit">

</form>

</body>

</html>

7. **Write a Flask route that displays a list of names in a dropdown menu.**

from flask import Flask, render\_template

app = Flask(\_\_name\_\_)

@app.route("/names")

def names():

names = ["Alice", "Bob", "Charlie"]

return render\_template("names.html", names=names)

if \_\_name\_\_ == "\_\_main\_\_":

app.run()

The corresponding names.html file should contain the following:

<!doctype html>

<html>

<body>

<form method="POST">

<label for="name">Name:</label>

<select id="name" name="name">

{% for name in names %}

<option value="{{ name }}">{{ name }}</option>

{% endfor %}

</select>

<input type="submit" value="Submit">

</form>

</body>

</html>

8. **Write a Flask route that receives data through a POST request and returns the data in JSON format.**

from flask import Flask, request, jsonify

app = Flask(\_\_name\_\_)

@app.route("/data", methods=["POST"])

def data():

data = request.get\_json()

return jsonify(data)

if \_\_name\_\_ == "\_\_main\_\_":

app.run()

9. **Write a Flask route that receives data through a POST request and returns the data in JSON format.**

from flask import Flask, send\_from\_directory

app = Flask(\_\_name\_\_)

@app.route("/static/<path:filename>")

def static\_file(filename):

return send\_from\_directory("static", filename)

if \_\_name\_\_ == "\_\_main\_\_":

app.run()

10. **Write a Flask route that redirects the user to a different URL.**

from flask import Flask, redirect

app = Flask(\_\_name\_\_)

@app.route("/")

def index():

return redirect("/hello")

@app.route("/hello")

def hello():

return "Hello, World!"

if \_\_name\_\_ == "\_\_main\_\_":

app.run()