

Q1. Explain GET and POST methods.

Answer.

GET

GET is the most used HTTP method and it is typically used to retrieve information from a web server.

POST

POST is commonly used to send information to web server. It is more often used when uploading a file, getting form data and sending sensitive data. POST is a secure way to send data to a web server.

Q2. Why is request used in Flask?

Answer :

Request is used in Flask to access the incoming data in Flask, you have to use the request object. The request object holds all incoming data from the request, which includes the mime type, referrer, IP address, raw data, HTTP method, and headers, among other things.

Q3. Why is redirect() used in Flask?

Answer: Flask redirect is defined as a function or utility in Flask which allows developers to redirect users to a specified URL and assign a specified status code. When this function is called, a response object is returned, and the redirection happens to the target location with the status code.

Q4. What are templates in Flask? Why is the render_template() function used?

Answer: Templates are files that contain static data as well as placeholders for dynamic data. A template is rendered with specific data to produce a final document.

render_template is used to generate output from a template file based on the Jinja2 engine that is found in the application's templates folder. Note that render_template is typically imported directly from the flask package instead of from flask.

Q5. Create a simple API. Use Postman to test it. Attach the screenshot of the output in the Jupyter Notebook.

Answer:

```
@app.route('/postman_action',methods=['POST'])
def math_ops1():
    if(request.method == 'POST'):
        ops = request.json['operation']
        num1 = int(request.json['num1'])
        num2 = int(request.json['num2'])
        if ops == 'add':
            r = num1+num2
            result = "The sum of " + str(num1) + 'and ' + str(num2) + "is " + str(r)
        if ops == 'subtract':
            r = num1-num2
            result = "The subtract of " + str(num1) + 'and ' + str(num2) + "is " + str(r)
        if ops == 'multiply':
            r = num1*num2
            result = "The multiply of " + str(num1) + 'and ' + str(num2) + "is " + str(r)
        if ops == 'divide':
            r = num1/num2
            result = "The divide of " + str(num1) + 'and ' + str(num2) + "is " + str(r)

    return jsonify(result)

if __name__=="__main__":
```

```
app.run(host="0.0.0.0")
```

The screenshot shows a Jupyter Notebook environment with a REST client interface. The notebook is titled "Practice.ipynb" and is running on a Python 3 (ipykernel) environment. The REST client is configured with the following details:

- Method:** POST
- URL:** `https://gray-salesmen-yebkr.pwskills.app:5000/postman_action`
- Body:** JSON format with the following content:

```
{  "operation": "add",  "num1": 25,  "num2": 30}
```
- Response:** The response is displayed in the "Body" tab, showing a status of 200 OK, a response time of 379 ms, and a body of `"The sum of 25and 30is 55"`.

The interface includes a "History" panel on the left, a "Params" tab, and a "Send" button. The bottom status bar indicates the notebook is in "Idle" mode.