

**Q1**#In the context of web development, GET and POST are HTTP methods used to send data from a client (usually a web browser) to a server.

#The GET method is used to retrieve data from the server. When a client sends a GET request, the server returns the requested data in the response. The data can be included in the URL as query parameters or in the request headers.

#The POST method, on the other hand, is used to submit data to the server for processing.

#When a client sends a POST request, the data is included in the body of the request rather than in the URL.

#This makes it suitable for sending sensitive information or large amounts of data.

**Q2**#In Flask, the request object is a global object that represents the current HTTP request.

#It allows you to access the data submitted by a client in a request.

#You can use request to access form data, query parameters, JSON data, and more.

#For example, if you want to retrieve the value of a form field submitted via a POST request, you can use `request.form['field_name']`.

**Q3**#The `redirect()` function in Flask is used to redirect the client to a different URL.

#It is commonly used after processing a form submission or completing a certain action to redirect the user to a different page.

#When you call `redirect('url')`, Flask sends a response to the client with the appropriate redirect status code (usually 302) and the new URL.

#The client's web browser then makes a new request to the provided URL, and the server responds accordingly.

**Q4**#Templates in Flask are files containing HTML or other markup languages mixed with placeholders and control structures.

#They allow you to separate the presentation logic from the application logic in a web application.

#The `render_template()` function in Flask is used to render a template and generate the final HTML that will be sent as a response to the client.

#It takes the name of the template file as a parameter and can also accept additional arguments to pass data to the template.

#By using templates, you can create dynamic web pages that can display different content based on variables, conditions, and loops. The `render_template()` function combines the template file with the provided data to produce the final HTML output.

Q5

The screenshot shows the Visual Studio Code editor with a Python file named `app.py` open. The code is a Flask application that handles POST requests to `/postman_action`. It uses `request.json` to get the operation and numbers, and returns a JSON response. The code is as follows:

```
32
33
34
35 @app.route('/postman_action', methods=['POST'])
36 def math_ops1():
37     if request.method == 'POST':
38         ops = request.json['operation']
39         num1 = int(request.json['num1'])
40         num2 = int(request.json['num2'])
41         if ops == 'add':
42             r = num1+num2
43             result = "The sum of " + str(num1) + 'and ' + str(num2) + "is " + str(r)
44         if ops == 'subtract':
45             r = num1-num2
46             result = "The subtract of " + str(num1) + 'and ' + str(num2) + "is " + str(r)
47         if ops == 'multiply':
48             r = num1*num2
49             result = "The multiply of " + str(num1) + 'and ' + str(num2) + "is " + str(r)
50         if ops == 'divide':
51             r = num1/num2
52             result = "The divide of " + str(num1) + 'and ' + str(num2) + "is " + str(r)
53         return jsonify(result)
54
55 if __name__ == "__main__":
56     app.run(host="0.0.0.0")
57
58
```

The status bar at the bottom shows the file is at line 35, column 14, with 4 spaces, UTF-8 encoding, LF line endings, Python 3.8.10 64-bit, and a US layout.

