Green University of Bangladesh

Department of Computer Science and Engineering
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Lab Report :01
Course Title: Computer Networking Lab
Course Code: CSE 312
Section: 211 D2

Experiment Name:

Implementation of HTTP POST method using java

Student Details

Name	ID
Md Emon Hossain	201902009

Submission Date: October 3, 2023

Teachers Name: Tanpia Tasnim

Status	
Marks:	Signature: .....
Comments:	Date: .....

Chapter 1

Introduction

In the modern era of information technology, data exchange over the internet has become an integral part of our daily lives. It serves as the backbone for various web applications, allowing them to communicate and share data seamlessly. One of the fundamental protocols for this data exchange is the Hypertext Transfer Protocol (HTTP). While HTTP GET requests are commonly used for retrieving data from web servers, HTTP POST requests are equally vital for sending data to servers. This lab report explores the practical implementation of the HTTP POST method, focusing on its significance, use cases, and technical details.

Chapter 2

Objectives

1. Understand How HTTP POST Method works
2. Understand how Data Exchange.
3. Understand how Error Handling when we post the data

Chapter 3

Implementation

```
    import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;
import java.io.OutputStream;
import java.net.HttpURLConnection;
import java.net.URL;


public class postdata {


    public static void main(String[] args) throws IOException {
        String targetUrl = "https://jsonplaceholder.typicode.com/posts";
        String postData = "{\"title\":\"emon\",\"body\":\"201902009\",\"userId\":201}";

        URL url = new URL(targetUrl);
        HttpURLConnection connection = (HttpURLConnection) url.openConnection();

        // Set the request method to POST
        connection.setRequestMethod("POST");
        connection.setDoOutput(true);

        // Set the request headers and content type for JSON data
        connection.setRequestProperty("Content-Type", "application/json");

        // Write the POST data to the output stream
        try (OutputStream os = connection.getOutputStream()) {
            byte[] input = postData.getBytes("utf-8");
            os.write(input, 0, input.length);
        }

        // Check for successful response code, e.g., 201 for Created
        int responseCode = connection.getResponseCode();
        if (responseCode == 201) {
            BufferedReader reader = new BufferedReader(new InputStreamReader(connection.getInp
            String line;
            while ((line = reader.readLine()) != null) {
                // Process the response data as needed
                System.out.println(line);
            }
            reader.close();
```

```
        } else {
            // Handle error responses here
            System.err.println("HTTP request failed with response code: " + responseCode);
        }
    }
}
```

```java
public class postdata {

    Run | Debug
    public static void main(String[] args) throws IOException {
        String targetUrl = "https://jsonplaceholder.typicode.com/posts";
        String postData = "{\"title\":\"emon\",\"body\":\"201902009\",\"userId\":201}";

        URL url = new URL(targetUrl);
        HttpURLConnection connection = (HttpURLConnection) url.openConnection();

        connection.setRequestMethod("POST");
        connection.setDoOutput(true);

        connection.setRequestProperty("Content-Type", "application/json");

        try (OutputStream os = connection.getOutputStream()) {
            byte[] input = postData.getBytes("utf-8");
            os.write(input, 0, input.length);
        }

        int responseCode = connection.getResponseCode();
        if (responseCode == 201) {
            BufferedReader reader = new BufferedReader(new InputStreamReader(connection.getInputStream()));
            String line;
            while ((line = reader.readLine()) != null) {

                System.out.println(line);
            }
            reader.close();
        } else {

            System.err.println("HTTP request failed with response code: " + responseCode);
        }
    }
```

Figure 3.1: Create POST method using java

3.0.1 Result

```
PROBLEMS 2  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

emon@pop-os:~/Documents/8th semister/computer-networking_lab/lab_1$  cd /home/emon/Docu
ExceptionMessages -cp /home/emon/.config/Code/User/workspaceStorage/0e224e5990f7cf312c4
{
  "title": "emon",
  "body": "201902009",
  "userId": 201,
  "id": 101
}
emon@pop-os:~/Documents/8th semister/computer-networking_lab/lab_1$
```

Figure 3.2: successfully implemented POST method

Chapter 4

Conclusion

In this experiment we learn that The implementation of the HTTP POST method is a fundamental skill for anyone involved in web development, data exchange, or API integration . In this lab report, we have explored the significance and practical aspects of utilizing HTTP POST requests to send data to remote servers. like jsonplaceholder .