Ex 6	A servlet to handle HTTP GET and POST methods

Aim

To develop a servlet to handle HTTP GET and POST methods and accept form data from user registration and display it.

Definitions

Servlet

A servlet is a Java-based software component that extends the capabilities of a server, most commonly a web server, to provide dynamic content. It functions by receiving and responding to client requests, typically over HTTP, and is frequently used to build web applications.

HTTP GET

The HTTP GET method is a fundamental request method within the Hypertext Transfer Protocol (HTTP), primarily used to retrieve data from a specified resource on a server. It is the most common HTTP method and serves as the foundation for web browsing, allowing clients (like web browsers) to request and receive web pages, images, and other resources.

HTTP POST

An HTTP POST is a request method used by clients to send data to a web server for processing. Unlike the GET method, which appends data to the URL, POST sends data in the body of the request message. This makes it suitable for situations where sensitive data needs to be transmitted, or when the amount of data exceeds the limitations of a URL.

Procedure

Open NetBeans IDE.

To create a Project go to File Menu → choose New Project → choose Java Web from Categories →choose Web Application from Projects →click next →specify the project name as HTTPGETPOST → Click Next → Click Next → click Finish.

Expand Web Pages Folder → Open index.html file → type the following codes:

index.html

```
<!DOCTYPE html>

<html>

<head>

   <title>User Registration</title>

</head>

<body>

   <h2>User Registration Form</h2>

   <form action="UserServlet" method="get">

      <label for="username">Username:</label><br>

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

      <label for="email">Email:</label><br>

      <input type="email" id="email" name="email"><br><br>

      <label for="password">Password:</label><br>

      <input type="password" id="password" name="password"><br><br>

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

   </form>

</body>

</html>
```

Right click on Web Pages Folder → choose New → select HTML → specify the HTML file name as index1 →click Finish → type the following codes:

index1.html

```
<!DOCTYPE html>

<html>

<head>
```

```html
    <title>User Registration</title>
</head>
<body>
    <h2>User Registration Form</h2>
    <form action="UserServlet" method="post">
        <label for="username">Username:</label><br>
        <input type="text" id="username" name="username"><br><br>
        <label for="email">Email:</label><br>
        <input type="email" id="email" name="email"><br><br>
        <label for="password">Password:</label><br>
        <input type="password" id="password" name="password"><br><br>
        <input type="submit" value="Register">
    </form>
</body>
</html>
```

Right click on Source Packages Folder → choose New → select Servlet → specify the class name as UserServlet → Click Next →click Finish.

Type the following codes in UserServlet.java:

UserServlet.java

```java
import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;


@WebServlet("/UserServlet")

public class UserServlet extends HttpServlet {

    private static final long serialVersionUID = 1L;
```

```java
    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {

        response.setContentType("text/html");

        PrintWriter out = response.getWriter();


        out.println("<html><body>");

        out.println("<h2>GET Method Data Display</h2>");

        out.println("<p>Username: " + request.getParameter("username") + "</p>");

        out.println("<p>Email: " + request.getParameter("email") + "</p>");

        out.println("</body></html>");

    }


    protected void doPost(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {

        response.setContentType("text/html");

        PrintWriter out = response.getWriter();


        String username = request.getParameter("username");

        String email = request.getParameter("email");

        String password = request.getParameter("password"); // For demonstration, not secure for
production


        out.println("<html><body>");

        out.println("<h2>Registration Details (POST Method)</h2>");

        out.println("<p>Username: " + username + "</p>");

        out.println("<p>Email: " + email + "</p>");

        out.println("<p>Password: " + password + "</p>"); // Displaying for demonstration

        out.println("</body></html>");

    }

}
```
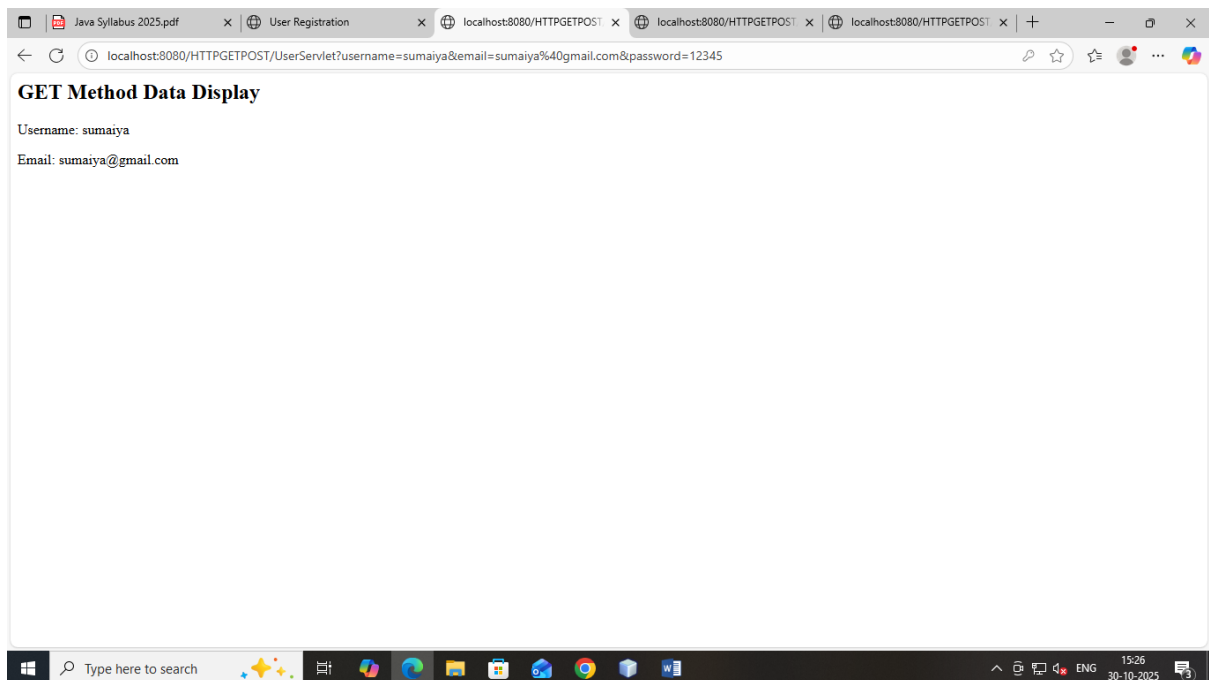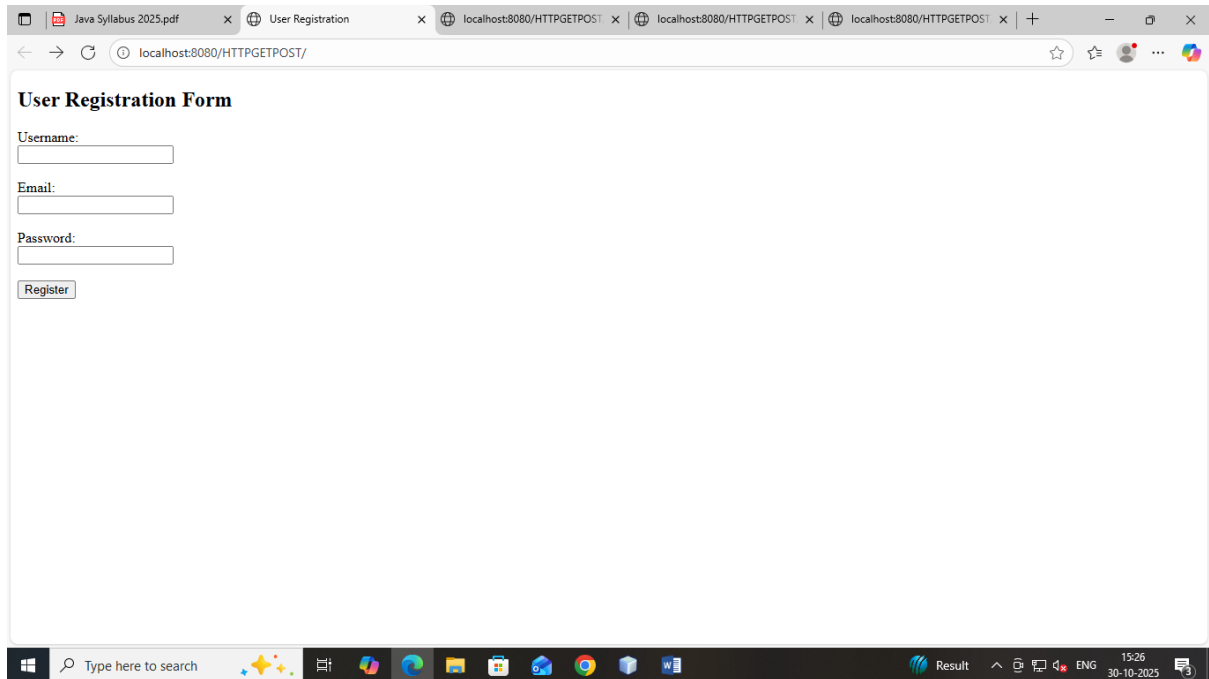
Right click on HTTPGETPOST Project → choose Clean and Build → right click again → Choose Deploy
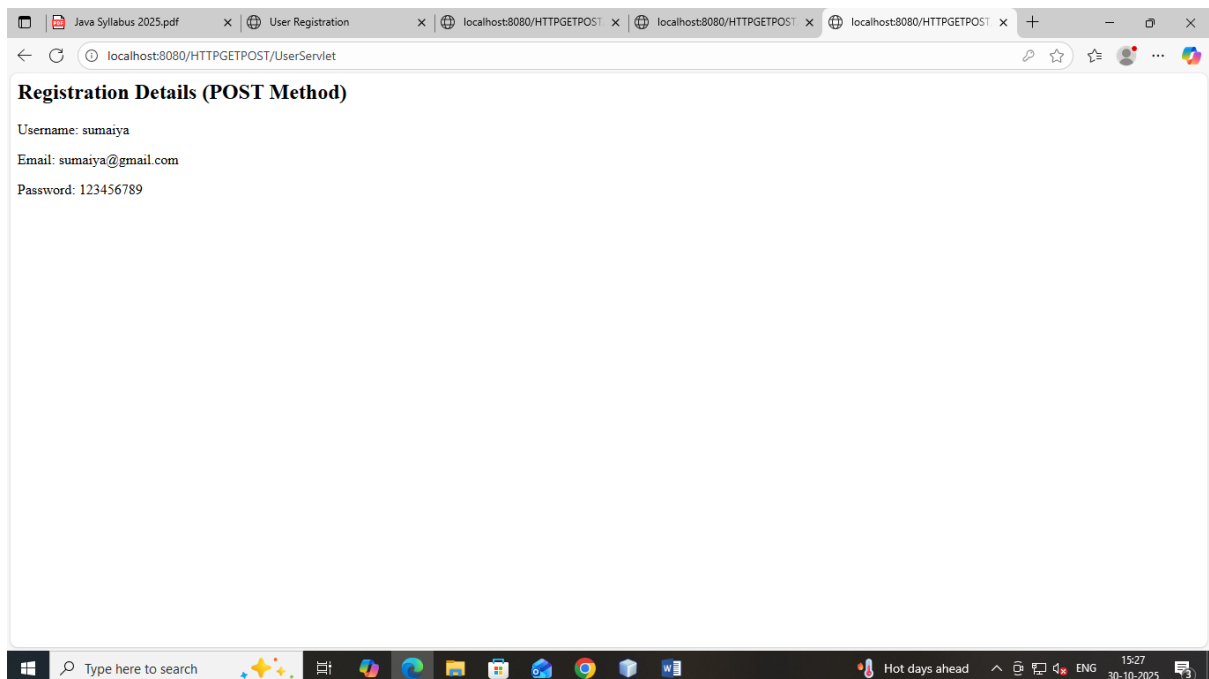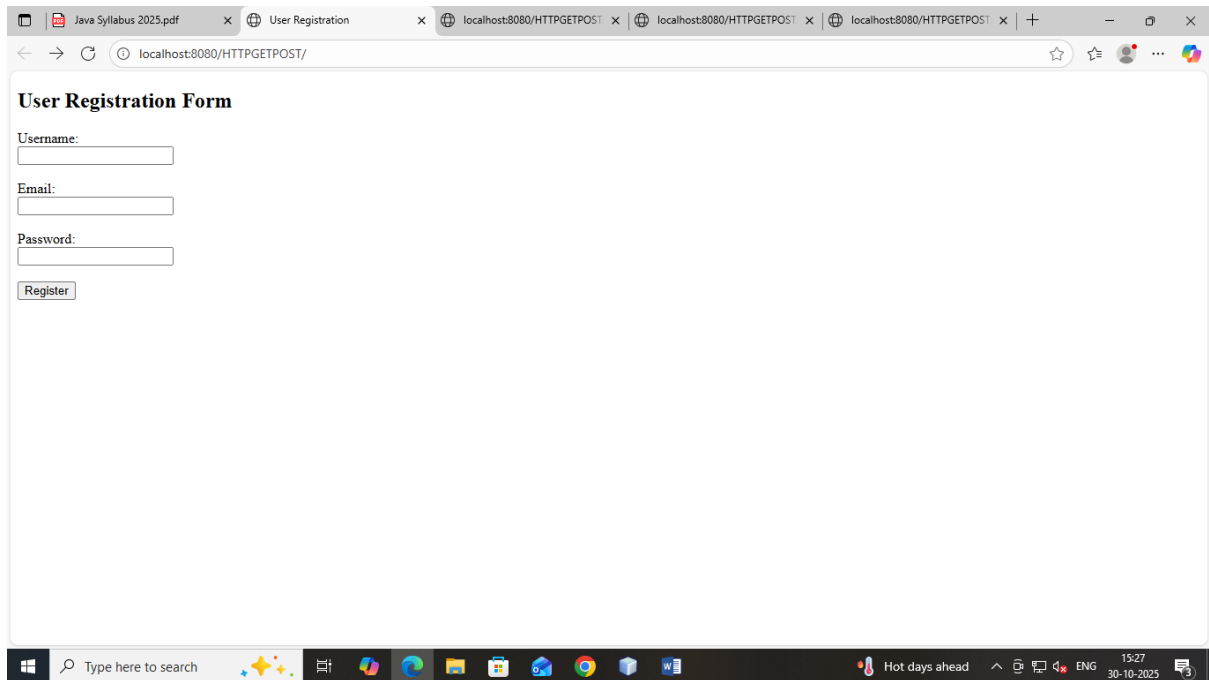
Output

Right click on index.html → choose Run File.

You can see the following result in the Browser.

Right click on index1.html → choose Run File.

You can see the following result in the Browser.

Result

Thus, a servlet to handle HTTP GET and POST methods has been developed and implemented.