Assignment 2

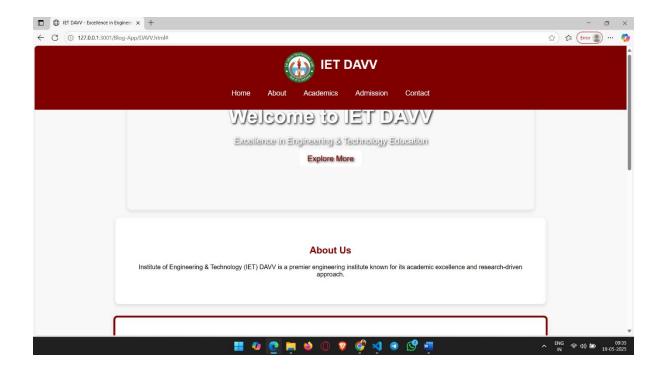
Davv.html

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>IET DAVV - Excellence in Engineering</title>
  <style>
    body {
      font-family: 'Arial', sans-serif;
      margin: 0;
      padding: 0;
      text-align: center;
      background-color: #f8f8f8;
    }
    header {
      background-color: #800000;
      color: white;
      padding: 15px 0;
      position: fixed;
      width: 100%;
      top: 0;
      z-index: 1000;
    .logo img {
      width: 80px;
      vertical-align: middle;
    }
    .logo h1, .logo h2 {
      display: inline;
      margin-left: 10px;
    }
    nav ul {
      list-style: none;
      padding: 0;
    nav ul li {
      display: inline;
      margin: 0 20px;
    }
    nav ul li a {
      color: white;
      text-decoration: none;
      font-size: 18px;
      transition: 0.3s;
    nav ul li a:hover {
      text-decoration: underline;
    }
      background: url("campus1.jpg") no-repeat center center/cover;
      color: white;
      padding: 120px 20px;
```

```
text-shadow: 2px 2px 5px black;
}
.hero h1 {
  font-size: 50px;
  margin: 10px 0;
.hero p {
  font-size: 22px;
  margin-bottom: 20px;
}
.btn {
  background-color: white;
  color: #800000;
  padding: 10px 20px;
  border-radius: 5px;
  text-decoration: none;
  font-size: 20px;
  transition: 0.3s;
}
.btn:hover {
  background-color: #ffd700;
  color: #800000;
}
section {
  padding: 50px;
  max-width: 1000px;
  margin: auto;
  background-color: white;
  margin-top: 20px;
  border-radius: 10px;
  box-shadow: 0px 4px 10px rgba(0,0,0,0.1);
}
h2 {
  color: #800000;
.departments, .why-us {
  display: flex;
  justify-content: center;
  flex-wrap: wrap;
.box {
  width: 250px;
  padding: 20px;
  background: #f4f4f4;
  margin: 15px;
  border-radius: 10px;
  transition: 0.3s;
}
.box:hover{
  background: #ffd700;
  transform: scale(1.05);
.carousel {
  position: relative;
  width: 80%;
  margin: 30px auto;
  overflow: hidden;
```

```
border: 5px solid #800000;
      border-radius: 10px;
   }
    .slides img {
     width: 100%;
     height: auto;
     display: none;
   .slides img.active {
     display: block;
   footer {
      background-color: #800000;
     color: white;
      padding: 20px 0;
      margin-top: 40px;
   }
  </style>
</head>
<body>
 <header>
   <div class="logo">
      <img src="Devi_Ahilya_Vishwavidyalaya_Logo.png" alt="IET Logo">
      <h1>IET DAVV</h1>
    </div>
    <nav>
      <a href="#">Home</a>
       <a href="#">About</a>
       <a href="#">Academics</a>
       <a href="#">Admission</a>
       <a href="#">Contact</a>
      </nav>
  </header>
  <section class="hero">
   <h1>Welcome to IET DAVV</h1>
   Excellence in Engineering & Technology Education
   <a href="#" class="btn">Explore More</a>
  </section>
  <section>
   <h2>About Us</h2>
   Institute of Engineering & Technology (IET) DAVV is a premier engineering institute known for its
academic excellence and research-driven approach.
  </section>
  <section class="carousel">
   <div class="slides">
      <img src="placement.jpg" alt="Placement Cell" class="active">
      <img src="campus1.jpg" alt="Campus View">
      <img src="library.jpg" alt="Library">
      <img src="lab.jpg" alt="Laboratory">
      <img src="event.jpg" alt="College Event">
    </div>
  </section>
```

```
<section>
    <h2>Our Departments</h2>
    <div class="departments">
      <div class="box">Computer Science</div>
      <div class="box">Electronics & Communication</div>
      <div class="box">Mechanical Engineering</div>
      <div class="box">Civil Engineering</div>
      <div class="box">Information Technology</div>
    </div>
  </section>
  <section>
    <h2>Why Choose IET DAVV?</h2>
    <div class="why-us">
      <div class="box">Ranked Among Top 10 Govt. Engineering Colleges</div>
      <div class="box">Excellent Placement Record</div>
      <div class="box">Advanced Research & Innovation</div>
      <div class="box">Experienced Faculty</div>
      <div class="box">State-of-the-Art Infrastructure</div>
    </div>
  </section>
  <footer>
    © 2025 Institute of Engineering & Technology, DAVV Indore
    Contact: iet@davv.ac.in | Phone: +91-731-2462021
  </footer>
  <script>
    document.addEventListener("DOMContentLoaded", function() {
      const slides = document.querySelectorAll(".slides img");
      function showSlide(index) {
        slides.forEach((slide, i) => {
          slide.classList.toggle("active", i === index);
        });
      }
      function nextSlide() {
        ci = (ci + 1) % slides.length;
        showSlide(ci);
      }
      setInterval(nextSlide, 3000);
      showSlide(ci);
   });
  </script>
</body>
</html>
```



Assignment - 3

Basics.html

<div class="hero-content">

<h1>Welcome to Our Website</h1>

```
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="UTF-8">
 <meta name="viewport" content="width=device-width, initial-scale=1.0">
 <title> Webpage Styling </title>
 k rel="stylesheet" href="styles.css">
 <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.0.0-</pre>
beta3/css/all.min.css">
</head>
<body>
 <header>
   <nav>
     <button class="dark-mode-toggle" onclick="toggleDarkMode()">Toggle Dark Mode</button>
     <a href="#home">Home</a>
       <a href="#about">About</a>
       <a href="#services">Services</a>
       <a href="#contact">Contact</a>
     </nav>
  </header>
  <section id="hero">
```

```
Your journey to a better web experience starts here.
      <a href="#about" class="btn">Learn More</a>
    </div>
  </section>
  <section id="about" class="content-section">
    <h2>About Us</h2>
    We are a team of passionate developers creating amazing web experiences.
  </section>
  <section id="services" class="content-section">
    <h2>Our Services</h2>
    <div class="card">
      <h3>Web Development</h3>
      Ye build responsive and user-friendly websites.
    </div>
    <div class="card">
      <h3>SEO Optimization</h3>
      We help you rank higher on search engines.
    </div>
  </section>
  <footer>
    <div class="social-icons">
      <a href="#"><i class="fab fa-facebook"></i></a>
      <a href="#"><i class="fab fa-twitter"></i></a>
      <a href="#"><i class="fab fa-instagram"></i></a>
      <a href="#"><i class="fab fa-linkedin"></i></a>
    © 2023 Swati. All rights reserved.
  </footer>
</body>
<script> function toggleDarkMode() {
  document.body.classList.toggle('dark-mode');
} </script>
</html>
```

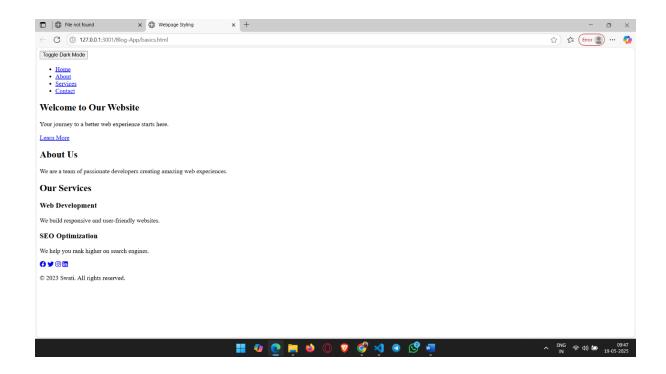
Style.css

```
body {
  font-family: 'Arial', sans-serif;
  margin: 0;
  padding: 0;
  scroll-behavior: smooth;
  background-color: var(--bg-color);
  color: var(--text-color);
  transition: background-color 0.3s, color 0.3s;
}
:root {
  --bg-color: #ffffff;
```

```
--text-color: #333333;
  --primary-color: #007BFF;
  --hover-color: #0056b3;
}
.dark-mode {
  --bg-color: #333333;
  --text-color: #ffffff;
}
header {
  position: sticky;
  top: 0;
  background-color: var(--primary-color);
  z-index: 1000;
}
nav ul {
  display: flex;
  justify-content: space-around;
  list-style: none;
  padding: 1rem 0;
  margin: 0;
}
nav ul li a {
  color: white;
  text-decoration: none;
  font-weight: bold;
  transition: color 0.3s;
}
nav ul li a:hover {
  color: var(--hover-color);
}
/* Hero Section */
#hero {
  background-image: url('hero-bg.jpg');
  background-size: cover;
  background-position: center;
  height: 100vh;
  display: flex;
  justify-content: center;
  align-items: center;
  text-align: center;
  color: white;
  position: relative;
}
#hero::before {
  content: ";
  position: absolute;
  top: 0;
  left: 0;
  right: 0;
```

```
bottom: 0;
  background-color: rgba(0, 0, 0, 0.5);
}
.hero-content {
  position: relative;
  z-index: 1;
}
.hero-content h1 {
  font-size: 3rem;
  margin-bottom: 1rem;
}
.hero-content p {
  font-size: 1.5rem;
  margin-bottom: 2rem;
}
.hero-content .btn {
  padding: 0.75rem 1.5rem;
  background-color: var(--primary-color);
  color: white;
  text-decoration: none;
  border-radius: 5px;
  transition: background-color 0.3s;
}
.hero-content .btn:hover {
  background-color: var(--hover-color);
}
.content-section {
  padding: 4rem 2rem;
  text-align: center;
}
.content-section h2 {
  font-size: 2.5rem;
  margin-bottom: 1rem;
}
.content-section p{
  font-size: 1.2rem;
  line-height: 1.6;
}
.card {
  background-color: white;
  padding: 2rem;
  margin: 1rem;
  border-radius: 10px;
  box-shadow: 0 4px 8px rgba(0, 0, 0, 0.1);
  transition: transform 0.3s, box-shadow 0.3s;
}
```

```
.card:hover {
  transform: translateY(-10px);
  box-shadow: 0 8px 16px rgba(0, 0, 0, 0.2);
}
footer {
  background-color: var(--primary-color);
  color: white;
  text-align: center;
  padding: 1rem 0;
}
.social-icons {
  margin-bottom: 1rem;
}
.social-icons a {
  color: white;
  margin: 0 0.5rem;
  font-size: 1.5rem;
  transition: color 0.3s;
}
.social-icons a:hover{
  color: var(--hover-color);
}
@keyframes fadeln {
  from {
    opacity: 0;
 }
  to {
    opacity: 1;
 }
}
body {
  animation: fadeln 1s ease-in-out;
}
.dark-mode-toggle {
  position: fixed;
  bottom: 20px;
  right: 20px;
  background-color: var(--primary-color);
  color: white;
  border: none;
  padding: 0.5rem 1rem;
  border-radius: 5px;
  cursor: pointer;
  transition: background-color 0.3s;
}
.dark-mode-toggle:hover {
  background-color: var(--hover-color);}
```



Assignment - 4

Index.html

```
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="UTF-8">
 <meta name="viewport" content="width=device-width, initial-scale=1.0">
 <title>JavaScript Assignment</title>
  k rel="stylesheet" href="styles.css">
</head>
<body>
 <h1>JavaScript Assignment</h1>
  <section id="task1A">
   <h2>1A: Variables, Functions, Conditions, and Loops</h2>
   <label for="weight">Weight (kg):</label>
   <input type="number" id="weight" placeholder="Enter weight">
   <label for="height">Height (cm):</label>
   <input type="number" id="height" placeholder="Enter height">
   <button onclick="calculateBMI()">Calculate BMI</button>
   </section>
  <section id="task1B">
   <h2>1B: Pop-up Boxes</h2>
   <button onclick="showAlert()">Show Alert
   <button onclick="showConfirm()">Show Confirm</button>
   <button onclick="showPrompt()">Show Prompt</button>
   </section>
```

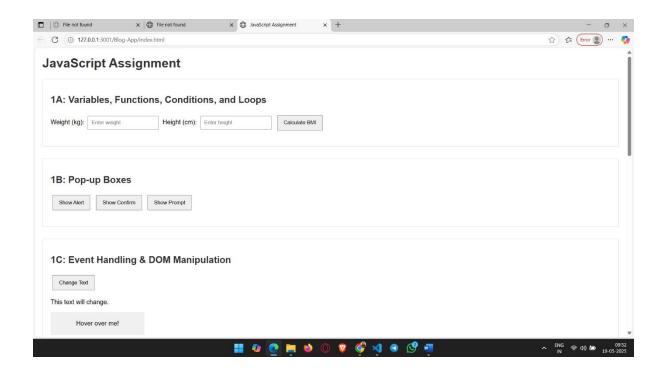
```
<section id="task1C">
 <h2>1C: Event Handling & DOM Manipulation</h2>
 <button onclick="changeText()">Change Text
 This text will change.
 <div id="hoverDiv" onmouseover="hoverEffect(true)" onmouseout="hoverEffect(false)">
   Hover over me!
 </div>
 ul id="dynamicList">
   Item 1
   ltem 2
 <input type="text" id="newItem" placeholder="Add new item">
 <button onclick="addItem()">Add Item</button>
</section>
<section id="task1D">
 <h2>1D: Forms & Validation</h2>
 <form id="registrationForm" onsubmit="validateForm(event)">
   <label for="name">Name:</label>
   <input type="text" id="name" placeholder="Enter name">
   <span id="nameError" class="error"></span><br>
   <label for="email">Email:</label>
   <input type="email" id="email" placeholder="Enter email">
   <span id="emailError" class="error"></span><br>
   <label for="phone">Phone:</label>
   <input type="tel" id="phone" placeholder="Enter phone">
   <span id="phoneError" class="error"></span><br>
   <label for="password">Password:</label>
   <input type="password" id="password" placeholder="Enter password">
   <span id="passwordError" class="error"></span><br>
   <button type="submit">Submit</button>
 </form>
</section>
<section id="task1E">
 <h2>1E: JavaScript Objects & AJAX</h2>
 <button onclick="fetchWeather()">Fetch Weather/button>
 </section>
<section id="todoList">
 <h2>To-Do List</h2>
 <input type="text" id="todoInput" placeholder="Add a new task">
 <button onclick="addTodo()">Add Task</button>
 ul id="todoltems">
</section>
```

```
<section id="chatbot">
    <h2>Simple Chatbot</h2>
    <div id="chatbox">
      Chatbot: Namaskar! Aaj aapki kaise madad kar sakta hu?
    <input type="text" id="chatInput" placeholder="Type your message">
    <button onclick="sendMessage()">Send</button>
  </section>
  <script src="script.js"></script>
</body>
</html>
Script.is
function calculateBMI() {
  const weight = parseFloat(document.getElementById('weight').value);
  const height = parseFloat(document.getElementById('height').value) / 100;
  if (isNaN(weight) || isNaN(height)) {
    alert("Please enter valid weight and height.");
    return;
  }
  const bmi = (weight / (height * height)).toFixed(2);
  document.getElementById('bmiRe sult').innerText = `Your BMI is: ${bmi}`;
}
function showAlert() {
  alert("This is an alert box!");
}
function showConfirm() {
  const result = confirm("Are you sure you want to delete this item?");
  if (result) {
    alert("Item deleted.");
  } else {
    alert("Deletion canceled.");
}
function showPrompt() {
  const userInput = prompt("Please enter your name:");
  if (userInput) {
    document.getElementById('promptResult').innerText = `Hello, ${userInput}!`;
  }
}
function changeText() {
  document.getElementById('changeableText').innerText = "Text changed!";
}
function hoverEffect(isHovering) {
  const div = document.getElementById('hoverDiv');
  div.style.backgroundColor = isHovering ? "#ccc" : "#f0f0f0";
}
```

```
function addltem() {
  const newItem = document.getElementById('newItem').value;
  if (newItem) {
    const li = document.createElement('li');
    li.innerText = newItem;
    document.getElementById('dynamicList').appendChild(li);
    document.getElementById('newItem').value = ";
 }
}
function validateForm(event) {
  event.preventDefault();
  const name = document.getElementById('name').value;
  const email = document.getElementById('email').value;
  const phone = document.getElementById('phone').value;
  const password = document.getElementById('password').value;
  let isValid = true;
  if (!name) {
    document.getElementById('nameError').innerText = "Name is required.";
    isValid = false;
  } else {
    document.getElementById('nameError').innerText = "";
  }
  const emailRegex = /^[^\s@]+@[^\s@]+\.[^\s@]+$/;
  if (!emailRegex.test(email)) {
    document.getElementById('emailError').innerText = "Invalid email format.";
    isValid = false;
  } else {
    document.getElementById('emailError').innerText = "";
  }
  const phoneRegex = /^\d{10}$/;
  if (!phoneRegex.test(phone)) {
    document.getElementById('phoneError').innerText = "Phone number must be 10 digits.";
    isValid = false;
  } else {
    document.getElementById('phoneError').innerText = "";
  const passwordRegex = /^{?=.*d}(?=.*[a-z])(?=.*[A-Z])(?=.*[!@#$%^&*]).{8,}$/;
  if (!passwordRegex.test(password)) {
    document.getElementById('passwordError').innerText = "Password must be at least 8 characters long
and include uppercase, lowercase, numbers, and special characters.";
    isValid = false;
  } else {
    document.getElementById('passwordError').innerText = "";
  if (isValid) {
    alert("Form submitted successfully!");
```

```
}
function fetchWeather() {
  const apiKey = 'YOUR_API_KEY';
  const city = 'London';
  const url =
`https://api.openweathermap.org/data/2.5/weather?q=${city}&appid=${apiKey}&units=metric`;
  fetch(url)
    .then(response => response.json())
    .then(data => {
      const weather = data.weather[0].description;
      const temp = data.main.temp;
      document.getElementById('weatherResult').innerText = `Weather in ${city}: ${weather},
Temperature: ${temp}°C`;
    .catch(error => {
      console.error("Error fetching weather data:", error);
    });
}
function addTodo() {
  const todoInput = document.getElementById('todoInput').value;
  if (todoInput) {
    const li = document.createElement('li');
    li.innerText = todoInput;
    li.onclick = function() {
      this.classList.toggle('completed');
    };
    document.getElementById('todoltems').appendChild(li);
    document.getElementById('todoInput').value = ";
 }
}
function sendMessage() {
  const userInput = document.getElementById('chatInput').value;
  if (userInput) {
    const chatbox = document.getElementById('chatbox');
    chatbox.innerHTML += `You: ${userInput}`;
    chatbox.innerHTML += `Chatbot: I received your message: "${userInput}".`;
    document.getElementById('chatInput').value = ";
    chatbox.scrollTop = chatbox.scrollHeight;
 }
}
Styles.css
body {
  font-family: Arial, sans-serif;
  margin: 20px;
}
h1, h2 {
  color: #333;
```

```
}
section {
  margin-bottom: 30px;
  padding: 20px;
  border: 1px solid #ddd;
  border-radius: 5px;
}
button {
  padding: 10px 15px;
  margin: 5px;
  cursor: pointer;
}
input {
  padding: 8px;
  margin: 5px;
}
.error {
  color: red;
  font-size: 0.9em;
}
#hoverDiv {
  width: 200px;
  padding: 20px;
  background-color: #f0f0f0;
  text-align: center;
  margin: 10px 0;
}
#dynamicList {
  list-style-type: none;
  padding: 0;
}
#dynamicList li {
  padding: 5px;
  background-color: #f9f9f9;
  margin: 5px 0;
}
#chatbox {
  height: 100px;
  border: 1px solid #ccc;
  padding: 10px;
  overflow-y: scroll;
  margin-bottom: 10px;
}
```



Assignment - 5

Login.html

```
<!DOCTYPE html>
<html>
<head>
 <title>Login Page</title>
</head>
<body>
  <h1>Login</h1>
 <form action="login" method="post">
   Username: <input type="text" name="username"><br>
   Password: <input type="password" name="password"><br>
   <input type="submit" value="Login">
 </form>
 < % if (request.getParameter("error") != null) { %>
   Invalid username or password!
 < % } %>
</body>
</html>
```

Authentication.java

```
import java.io.IOException;
import javax.servlet.Filter;
import javax.servlet.FilterChain;
import javax.servlet.FilterConfig;
import javax.servlet.ServletException;
import javax.servlet.ServletRequest;
import javax.servlet.ServletResponse;
import javax.servlet.annotation.WebFilter;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
```

```
import javax.servlet.http.HttpSession;
@WebFilter("/protected/*")
public class AuthenticationFilter implements Filter {
  public void init(FilterConfig fConfig) throws ServletException {
  }
  public void doFilter(ServletRequest request, ServletResponse response, FilterChain chain)
      throws IOException, ServletException {
    HttpServletRequest httpRequest = (HttpServletRequest) request;
    HttpServletResponse httpResponse = (HttpServletResponse) response;
    HttpSession session = httpRequest.getSession(false);
    boolean isLoggedIn = (session != null && session.getAttribute("username") != null);
    if (isLoggedIn) {
      chain.doFilter(request, response);
    } else {
      httpResponse.sendRedirect(httpRequest.getContextPath() + "/login.html");
    }
  }
  public void destroy() {
}
Logging.java
import java.io.IOException;
import javax.servlet.Filter;
import javax.servlet.FilterChain;
import javax.servlet.FilterConfig;
import javax.servlet.ServletException;
import javax.servlet.ServletRequest;
import javax.servlet.ServletResponse;
import javax.servlet.annotation.WebFilter;
import javax.servlet.http.HttpServletRequest;
@WebFilter("/*")
public class LoggingFilter implements Filter {
  public void init(FilterConfig fConfig) throws ServletException {
  }
  public void doFilter(ServletRequest request, ServletResponse response, FilterChain chain)
      throws IOException, ServletException {
    HttpServletRequest httpRequest = (HttpServletRequest) request;
    String ipAddress = httpRequest.getRemoteAddr();
    String requestURL = httpRequest.getRequestURL().toString();
    System.out.println("IP Address: " + ipAddress + ", Requested URL: " + requestURL);
```

```
chain.doFilter(request, response);
  }
  public void destroy() {
LoginServlet.java
import java.io.IOException;
import javax.servlet.RequestDispatcher;
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("/login")
public class LoginServlet extends HttpServlet {
  private static final long serialVersionUID = 1L;
  protected void doPost(HttpServletRequest_request, HttpServletResponse_response)
      throws ServletException, IOException {
    String username = request.getParameter("username");
    String password = request.getParameter("password");
    if ("admin".equals(username) && "password".equals(password)) {
      RequestDispatcher dispatcher = request.getRequestDispatcher("welcome");
      dispatcher.forward(request, response);
      response.sendRedirect("login.html?error=1");
    }
 }
}
Servlets.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("/welcome")
public class WelcomeServlet extends HttpServlet {
  private static final long serialVersionUID = 1L;
  protected void doGet(HttpServletRequest request, HttpServletResponse response)
      throws ServletException, IOException {
    response.setContentType("text/html");
    PrintWriter out = response.getWriter();
    out.println("<html><body>");
    out.println("<h1>Welcome to our website!</h1>");
    out.println("Your IP Address: " + request.getRemoteAddr() + "");
    out.println("User-Agent: " + request.getHeader("User-Agent") + "");
    out.println("</body></html>");
```

```
}
  protected void doPost(HttpServletRequest request, HttpServletResponse response)
      throws ServletException, IOException {
    String name = request.getParameter("name");
    response.setContentType("text/html");
    PrintWriter out = response.getWriter();
    out.println("<html><body>");
    out.println("<h1>Hello, " + name + "!</h1>");
    out.println("</body></html>");
 }
}
sessionManager.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;
import javax.servlet.http.HttpSession;
@WebServlet("/session")
public class SessionServlet extends HttpServlet {
  private static final long serialVersionUID = 1L;
  protected void doGet(HttpServletRequest_request, HttpServletResponse_response)
      throws ServletException, IOException {
    HttpSession session = request.getSession();
    String username = (String) session.getAttribute("username");
    response.setContentType("text/html");
    PrintWriter out = response.getWriter();
    out.println("<html><body>");
    if (username != null) {
      out.println("<h1>Welcome back, " + username + "!</h1>");
      out.println("<h1>Please log in.</h1>");
    out.println("</body></html>");
  }
  protected void doPost(HttpServletRequest request, HttpServletResponse response)
      throws ServletException, IOException {
    String username = request.getParameter("username");
    HttpSession session = request.getSession();
    session.setAttribute("username", username);
    response.sendRedirect("session");
  }
}
```

