

# WEB Essential LAB Batch 1 and Batch 2

## Batch 1 :

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### 1. Student Info Form (HTML)

```
<!DOCTYPE html>
<html>
<head><title>Student Form</title></head>
<body>
  <h2>Student Information</h2>
  <form>
    Name: <input type="text" name="name"><br><br>
    Roll No: <input type="text" name="roll"><br><br>
    Email: <input type="email" name="email"><br><br>
    Gender:
    <input type="radio" name="gender" value="Male"> Male
    <input type="radio" name="gender" value="Female"> Female<br><br>
    Course:
    <select name="course">
      <option value="B.Tech">B.Tech</option>
      <option value="B.Sc">B.Sc</option>
    </select><br><br>
    <input type="submit" value="Submit">
  </form>
</body>
</html>
```

---

### 2. College Webpage with Tabs + Styles

```
<!DOCTYPE html>
<html>
<head>
  <title>XYZ College</title>
  <style>
    .tab {
      padding: 10px;
      margin: 5px;
      display: inline-block;
      background-color: #007BFF;
      color: white;
      cursor: pointer;
    }
    .content {
      display: none;
      margin-top: 20px;
    }
  </style>
  <script>
    function showTab(id) {
      document.querySelectorAll('.content').forEach(el => el.style.display =
'none');
      document.getElementById(id).style.display = 'block';
    }
  </script>
</head>
<body>
```

```
</script>
</head>
<body>
  <div class="tab" onclick="showTab('home')">Home</div>
  <div class="tab" onclick="showTab('admission')">Admission</div>
  <div class="tab" onclick="showTab('contact')">Contact</div>
  <div class="tab" onclick="showTab('infra')">Infrastructure</div>

  <div id="home" class="content"><h2>Welcome to XYZ College</h2></div>
  <div id="admission" class="content"><h2>Admissions Open</h2></div>
  <div id="contact" class="content"><h2>Contact us at info@xyz.edu</h2></div>
  <div id="infra" class="content"><h2>State-of-the-art facilities</h2></div>
</body>
</html>
```

---

### 3. Native Calculator

```
<!DOCTYPE html>
<html>
<head><title>Simple Calculator</title></head>
<body>
  <h2>Calculator</h2>
  <input id="n1" type="number">
  <select id="op">
    <option value="+">+</option>
    <option value="-">-</option>
    <option value="*">*</option>
    <option value="/">/</option>
  </select>
  <input id="n2" type="number">
  <button onclick="calc()">=</button>
  <span id="res"></span>

  <script>
    function calc() {
      let n1 = parseFloat(document.getElementById("n1").value);
      let n2 = parseFloat(document.getElementById("n2").value);
      let op = document.getElementById("op").value;
      let result;
      switch (op) {
        case '+': result = n1 + n2; break;
        case '-': result = n1 - n2; break;
        case '*': result = n1 * n2; break;
        case '/': result = n2 !== 0 ? n1 / n2 : "Err"; break;
      }
      document.getElementById("res").innerText = result;
    }
  </script>
</body>
</html>
```

---

### 4. Payment Page with JavaScript Validation

```
<!DOCTYPE html>
<html>
<head><title>Payment</title></head>
```

```

<body>
  <h2>Payment Form</h2>
  <form onsubmit="return validate()">
    Username: <input type="text" id="uname"><br><br>
    Password: <input type="password" id="pass"><br><br>
    Payment Type:
    <select id="ptype">
      <option value="">--Select--</option>
      <option>Card</option>
      <option>UPI</option>
    </select><br><br>
    <input type="submit" value="Pay">
  </form>

  <script>
    function validate() {
      let uname = document.getElementById("uname").value;
      let pass = document.getElementById("pass").value;
      let ptype = document.getElementById("ptype").value;
      if (!uname || !pass || !ptype) {
        alert("All fields are required!");
        return false;
      }
      alert("Payment Successful");
      return true;
    }
  </script>
</body>
</html>

```

## 5. HTML Form + Servlet

```

<!-- form.html -->
<form method="get" action="HelloServlet">
  Enter Name: <input type="text" name="name">
  <input type="submit" value="Submit">
</form>

// HelloServlet.java
public class HelloServlet extends HttpServlet {
  protected void doGet(HttpServletRequest req, HttpServletResponse res) throws
  IOException {
    String name = req.getParameter("name");
    res.setContentType("text/html");
    PrintWriter out = res.getWriter();
    out.println("Hello " + name);
  }
}

```

## 6. Session Tracking Using Hidden Fields (HTML + Servlet)

```

<!-- page1.html -->
<form action="FirstServlet" method="post">
  Enter Name: <input type="text" name="name">
  <input type="submit">
</form>

```

```
// FirstServlet.java
public class FirstServlet extends HttpServlet {
    protected void doPost(HttpServletRequest req, HttpServletResponse res) throws
IOException {
        String name = req.getParameter("name");
        PrintWriter out = res.getWriter();
        out.println("<form action='SecondServlet'>");
        out.println("<input type='hidden' name='user' value='" + name + "'>");
        out.println("<input type='submit' value='Next'>");
        out.println("</form>");
    }
}

// SecondServlet.java
public class SecondServlet extends HttpServlet {
    protected void doGet(HttpServletRequest req, HttpServletResponse res) throws
IOException {
        String user = req.getParameter("user");
        res.getWriter().println("Welcome back " + user);
    }
}
```

---

## 7. Display Mark List using Servlet (with DB + HTML)

```
<!-- marks.html -->
<a href="MarkServlet">View Mark List</a>

// MarkServlet.java
public class MarkServlet extends HttpServlet {
    protected void doGet(HttpServletRequest req, HttpServletResponse res) throws
IOException {
        PrintWriter out = res.getWriter();
        out.println("<h2>Student Marks</h2>");
        try {
            Class.forName("com.mysql.jdbc.Driver");
            Connection con = DriverManager.getConnection("jdbc:mysql://localhost/college",
"root", "");
            Statement stmt = con.createStatement();
            ResultSet rs = stmt.executeQuery("SELECT * FROM marks");
            while (rs.next()) {
                out.println("Name: " + rs.getString(1) + ", Marks: " + rs.getInt(2) +
"<br>");
            }
        } catch (Exception e) {
            out.println("Error: " + e);
        }
    }
}
```

---

## 8. Book Info Form with PHP + MySQL

```
<!-- book_form.php -->
<form method="post" action="savebook.php">
    Name: <input type="text" name="name"><br>
    Select Book:
    <select name="book">
```

```

<?php
$con = mysqli_connect("localhost", "root", "", "books");
$res = mysqli_query($con, "SELECT title FROM catalog");
while ($row = mysqli_fetch_assoc($res)) {
    echo "<option>" . $row['title'] . "</option>";
}
?>
</select><br>
<input type="submit">
</form>

```

```

<!-- savebook.php -->
<?php
$con = mysqli_connect("localhost", "root", "", "books");
$name = $_POST['name'];
$book = $_POST['book'];
mysqli_query($con, "INSERT INTO bookings(name, book) VALUES('$name', '$book')");
echo "Book reserved!";
?>

```

---

## 9. Passport Application Form (PHP with Regex)

```

<!-- passport_form.php -->
<form method="post">
    Email: <input type="text" name="email">
    <input type="submit">
</form>

<?php
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $email = $_POST['email'];
    if (preg_match("/^[\\w\\-\\.]+@([\\w-]+\\.)+[\\w-]{2,4}$/", $email))
        echo "Valid Email";
    else
        echo "Invalid Email";
}
?>

```

---

## 10. Engineering Counselling Form (HTML + PHP + DB)

```

<!-- counselling.php -->
<form method="post">
    Name: <input type="text" name="name"><br>
    Cutoff: <input type="text" name="cutoff"><br>
    <input type="submit" value="Register">
</form>

<?php
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $con = mysqli_connect("localhost", "root", "", "counselling");
    $name = $_POST['name'];
    $cutoff = $_POST['cutoff'];
    mysqli_query($con, "INSERT INTO students(name, cutoff) VALUES('$name', '$cutoff')");
    echo "Registration Successful!";
}

```

?>

---

## 11. Web Service for Product Survey

```
<!-- survey.php -->
<form method="post">
  Name: <input type="text" name="name"><br>
  Do you like our product?
  <input type="radio" name="opinion" value="Yes">Yes
  <input type="radio" name="opinion" value="No">No<br>
  <input type="submit" value="Submit">
</form>

<?php
if ($_SERVER["REQUEST_METHOD"] == "POST") {
  $con = mysqli_connect("localhost", "root", "", "survey");
  $name = $_POST['name'];
  $opinion = $_POST['opinion'];
  mysqli_query($con, "INSERT INTO feedback(name, opinion) VALUES('$name',
'$opinion')");
  echo "Thank you for your feedback!";
}
?>
```

---

## 12. Web Service Calculator (PHP API Style)

```
<!-- calculator_api.php -->
<?php
if (isset($_GET['a']) && isset($_GET['b']) && isset($_GET['op'])) {
  $a = $_GET['a'];
  $b = $_GET['b'];
  $op = $_GET['op'];
  switch ($op) {
    case 'add': echo $a + $b; break;
    case 'sub': echo $a - $b; break;
    case 'mul': echo $a * $b; break;
    case 'div': echo $b != 0 ? $a / $b : "Divide by zero error"; break;
    default: echo "Invalid Operation";
  }
}
?>
```

Test in browser:

calculator\_api.php?a=10&b=2&op=add

---

## 13. Contact Info to DB (PHP)

```
<!-- contact.php -->
<form method="post">
  First Name: <input type="text" name="fname"><br>
  Last Name: <input type="text" name="lname"><br>
  Phone: <input type="text" name="phone"><br>
  Email: <input type="email" name="email"><br>
```

```

DOB: <input type="date" name="dob"><br>
Nickname: <input type="text" name="nickname"><br>
<input type="submit">
</form>

```

```

<?php
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $con = mysqli_connect("localhost", "root", "", "contacts");
    extract($_POST);
    mysqli_query($con, "INSERT INTO contact(fname, lname, phone, email, dob, nickname)
        VALUES('$fname', '$lname', '$phone', '$email', '$dob',
'$nickname')");
    echo "Contact saved!";
}
?>

```

## 14. Contact Info to DB (Servlet)

```

<!-- contact.html -->
<form method="post" action="ContactServlet">
    First Name: <input type="text" name="fname"><br>
    Last Name: <input type="text" name="lname"><br>
    Phone: <input type="text" name="phone"><br>
    Email: <input type="email" name="email"><br>
    DOB: <input type="date" name="dob"><br>
    Nickname: <input type="text" name="nickname"><br>
    <input type="submit">
</form>

// ContactServlet.java
public class ContactServlet extends HttpServlet {
    protected void doPost(HttpServletRequest req, HttpServletResponse res) throws
IOException {
        String fname = req.getParameter("fname");
        String lname = req.getParameter("lname");
        String phone = req.getParameter("phone");
        String email = req.getParameter("email");
        String dob = req.getParameter("dob");
        String nick = req.getParameter("nickname");

        try {
            Class.forName("com.mysql.jdbc.Driver");
            Connection con =
DriverManager.getConnection("jdbc:mysql://localhost/contacts", "root", "");
            PreparedStatement ps = con.prepareStatement("INSERT INTO contact VALUES (?, ?,
?, ?, ?, ?)");
            ps.setString(1, fname);
            ps.setString(2, lname);
            ps.setString(3, phone);
            ps.setString(4, email);
            ps.setString(5, dob);
            ps.setString(6, nick);
            ps.executeUpdate();
            res.getWriter().println("Saved Successfully!");
        } catch (Exception e) {
            res.getWriter().println("Error: " + e);
        }
    }
}

```

```
}
```

## 15. Shopping Mall Page (HTML + CSS with 4 Tables)

```
<!DOCTYPE html>
<html>
<head>
  <title>Shopping Mall</title>
  <style>
    table { border-collapse: collapse; width: 100%; margin: 20px 0; }
    th, td { border: 1px solid #333; padding: 8px; }
    h2 { background-color: #f0f0f0; padding: 10px; }
  </style>
</head>
<body>
  <h1>XYZ Shopping Mall</h1>
  <h2>Electronics</h2>
  <table>
    <tr><th>Product</th><th>Price</th></tr>
    <tr><td>TV</td><td>₹20,000</td></tr>
  </table>

  <h2>Clothing</h2>
  <table>
    <tr><th>Item</th><th>Price</th></tr>
    <tr><td>Shirt</td><td>₹800</td></tr>
  </table>

  <h2>Groceries</h2>
  <table>
    <tr><th>Item</th><th>Price</th></tr>
    <tr><td>Rice</td><td>₹60/kg</td></tr>
  </table>

  <h2>Home Appliances</h2>
  <table>
    <tr><th>Item</th><th>Price</th></tr>
    <tr><td>Fan</td><td>₹1500</td></tr>
  </table>
</body>
</html>
```

## 16. Hospital Webpage with 4 Tables + CSS

```
<!DOCTYPE html>
<html>
<head>
  <title>ABC Hospital</title>
  <style>
    table, th, td { border: 1px solid black; border-collapse: collapse; padding:
8px; }
  </style>
</head>
<body>
  <h1>ABC Hospital</h1>
```



```
<h2>Doctors</h2>
<table>
  <tr><th>Name</th><th>Department</th></tr>
  <tr><td>Dr. Raj</td><td>Cardiology</td></tr>
</table>

<h2>Departments</h2>
<table>
  <tr><th>Department</th><th>Head</th></tr>
  <tr><td>Neurology</td><td>Dr. Smith</td></tr>
</table>

<h2>Rooms</h2>
<table>
  <tr><th>Room No</th><th>Type</th></tr>
  <tr><td>101</td><td>ICU</td></tr>
</table>

<h2>Services</h2>
<table>
  <tr><th>Service</th><th>Cost</th></tr>
  <tr><td>X-Ray</td><td>₹500</td></tr>
</table>
</body>
</html>
```

---

## 17. Facebook Registration with JS Validation

```
<!DOCTYPE html>
<html>
<head>
  <title>Facebook Registration</title>
  <script>
    function validate() {
      let name = document.getElementById("name").value;
      let email = document.getElementById("email").value;
      if (name === "" || email === "") {
        alert("Please fill all fields.");
        return false;
      }
      alert("Registration successful!");
      return true;
    }
  </script>
</head>
<body>
  <h2>Register</h2>
  <form onsubmit="return validate()">
    Name: <input type="text" id="name"><br>
    Email: <input type="email" id="email"><br>
    <input type="submit" value="Register">
  </form>
</body>
</html>
```

---

## 18. Embed Map + Hotspot

```
<!DOCTYPE html>
<html>
<head><title>Map</title></head>
<body>
  <h2>Campus Map</h2>
  
  <map name="map">
    <area shape="rect" coords="50,50,150,150" href="#library" alt="Library">
    <area shape="rect" coords="200,50,300,150" href="#canteen" alt="Canteen">
  </map>

  <div id="library"><h3>Library</h3><p>Open 9AM-5PM</p></div>
  <div id="canteen"><h3>Canteen</h3><p>Open 8AM-8PM</p></div>
</body>
</html>
```

## 19. Quiz Program using HTML + Servlet

```
<!-- quiz.html -->
<form method="post" action="QuizServlet">
  What is 2 + 2?
  <input type="text" name="ans"><br>
  Your Name: <input type="text" name="name"><br>
  <input type="submit">
</form>

// QuizServlet.java
public class QuizServlet extends HttpServlet {
  protected void doPost(HttpServletRequest req, HttpServletResponse res) throws
  IOException {
    String ans = req.getParameter("ans");
    String name = req.getParameter("name");
    try {
      Connection con = DriverManager.getConnection("jdbc:mysql://localhost/quiz",
"root", "");
      Statement st = con.createStatement();
      st.executeUpdate("INSERT INTO results(name, answer) VALUES('" + name + "', '"
+ ans + "')");
      res.getWriter().println("Answer submitted!");
    } catch (Exception e) {
      res.getWriter().println("Error: " + e);
    }
  }
}
```

## 20. Grievance Portal (HTML + PHP + DB)

```
<!-- grievance.php -->
<form method="post">
  Name: <input type="text" name="name"><br>
  Email: <input type="email" name="email"><br>
  Complaint: <textarea name="complaint"></textarea><br>
  <input type="submit">
</form>
```

```
<?php
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $con = mysqli_connect("localhost", "root", "", "grievance");
    extract($_POST);
    mysqli_query($con, "INSERT INTO complaints(name, email, complaint) VALUES('$name',
'$email', '$complaint')");
    echo "Grievance submitted!";
}
?>
```

---

## Batch 2 :

---

### 1. Create a web page with the following using HTML

- a. Embed different types of fruits picture
- b. Fix hot spots
- c. Show all related info on click

```
<!DOCTYPE html>
<html>
<head><title>Fruits Info</title></head>
<body>
    <h2>Fruits Info</h2>
    
    <map name="fruitmap">
        <area shape="circle" coords="120,150,40" href="apple.html" alt="Apple">
        <area shape="rect" coords="200,100,300,200" href="banana.html" alt="Banana">
        <area shape="poly" coords="350,100,400,150,370,200,320,150" href="orange.html"
alt="Orange">
    </map>
</body>
</html>
```

---

### 2. Create a web page for student info with styles

```
<!DOCTYPE html>
<html>
<head>
    <title>Student Info</title>
    <style>
        body { font-family: Arial; background-color: #f2f2f2; }
        .section { padding: 20px; background: white; margin: 20px; border-radius: 8px; }
        h2 { color: darkblue; }
    </style>
</head>
<body>
    <div class="section"><h2>No. of Students on Roll</h2><p>1200</p></div>
    <div class="section"><h2>Placement Details</h2><p>300 students placed in
2024</p></div>
    <div class="section"><h2>Gallery</h2></div>
    <div class="section"><h2>Awards/Recognition</h2><p>Best College 2023 -
AICTE</p></div>
```

```
</body>
</html>
```

---

### 3. Create Email ID & validate login/profile using JavaScript

```
<!DOCTYPE html>
<html>
<head>
  <script>
    function validateForm() {
      var email = document.getElementById("email").value;
      if (!email.includes("@")) {
        alert("Invalid Email");
        return false;
      }
      alert("Registration Successful");
      return true;
    }
  </script>
</head>
<body>
  <h2>Register Email</h2>
  <form onsubmit="return validateForm()">
    Email: <input type="text" id="email"><br>
    <input type="submit" value="Register">
  </form>
</body>
</html>
```

---

### 4. Servlet: Event Webpage with session tracking & hit count

#### a. HTML Form to Invoke Servlet

```
<form action="EventServlet" method="post">
  Name: <input type="text" name="user"><br>
  <input type="submit" value="Submit">
</form>
```

#### b. Java Servlet with Hidden Field Session Tracking

```
public class EventServlet extends HttpServlet {
  protected void doPost(HttpServletRequest req, HttpServletResponse res) throws
  IOException {
    res.setContentType("text/html");
    PrintWriter out = res.getWriter();
    String name = req.getParameter("user");
    out.println("<form action='NextServlet' method='post'>");
    out.println("<input type='hidden' name='username' value='" + name + "'>");
    out.println("<input type='submit' value='Next'>");
    out.println("</form>");
  }
}
```

---

## 5. Three-Tier Servlet App for Placement Exam

### • Frontend (HTML Form)

```
<form action="PlacementServlet" method="post">
  Roll No: <input type="text" name="roll"><br>
  <input type="submit" value="Get Marks">
</form>
```

### • Servlet Code

```
public class PlacementServlet extends HttpServlet {
    protected void doPost(HttpServletRequest req, HttpServletResponse res) throws
    IOException {
        String roll = req.getParameter("roll");
        Connection con = DriverManager.getConnection("jdbc:mysql://localhost:3306/db",
        "root", "");
        PreparedStatement ps = con.prepareStatement("SELECT * FROM marks WHERE roll=?");
        ps.setString(1, roll);
        ResultSet rs = ps.executeQuery();
        PrintWriter out = res.getWriter();
        if (rs.next()) {
            out.println("Student Name: " + rs.getString("name") + "<br> Marks: " +
            rs.getInt("mark"));
        }
    }
}
```

---

## 6. Convert static page to dynamic using Cookies

### • Set Cookie Example

```
Cookie c = new Cookie("user", "john123");
res.addCookie(c);
```

### • Read Cookie

```
Cookie[] cookies = req.getCookies();
for (Cookie c : cookies) {
    if (c.getName().equals("user")) {
        out.println("Welcome " + c.getValue());
    }
}
```

---

## 7. Railway Reservation in PHP

### a. PHP Regex Validation

```
if (!preg_match("/^[A-Za-z ]{3,}$/", $_POST['name'])) {
    echo "Invalid Name";
}
```

### b. Store Data in DB

```
$conn = new mysqli("localhost", "root", "", "railway");
$sql = "INSERT INTO reservation (name, age) VALUES ('$_POST[name]', '$_POST[age]')";
$conn->query($sql);
```

## 8. Web page: Departments + Hotspots

```

<map name="deptmap">
  <area shape="rect" coords="0,0,100,100" href="cse.html" alt="CSE">
  <area shape="rect" coords="110,0,210,100" href="eee.html" alt="EEE">
</map>
```

---

## 9. CSS, Embedded, Inline

```
<html>
<head>
  <style>
    .dept { color: red; }
  </style>
</head>
<body style="background-color:lightgrey;">
  <h1 class="dept">CSE Department</h1>
  <p style="font-weight:bold;">Welcome to CSE</p>
</body>
</html>
```

---

## 10. JavaScript Validation for Grievance Redressal

```
<form onsubmit="return validate()">
  Name: <input type="text" id="name"><br>
  Email: <input type="text" id="email"><br>
  <input type="submit" value="Submit">
</form>
<script>
function validate() {
  let email = document.getElementById("email").value;
  if (!email.includes("@")) {
    alert("Invalid Email");
    return false;
  }
  alert("Form Submitted");
  return true;
}
</script>
```

---

## 11. Create college webpage using Java Servlets

a. Invoke Servlets from HTML form

b. Session tracking using hidden form fields & hit count

**HTML Form:**

```
<form action="CollegeServlet" method="post">
  Name: <input type="text" name="uname"><br>
  <input type="submit" value="Visit Page">
</form>
```

**CollegeServlet.java:**

```

public class CollegeServlet extends HttpServlet {
    int count = 0;

    protected void doPost(HttpServletRequest req, HttpServletResponse res) throws
IOException {
        res.setContentType("text/html");
        PrintWriter out = res.getWriter();

        String name = req.getParameter("uname");
        count++;

        out.println("<form action='NextServlet' method='post'>");
        out.println("<input type='hidden' name='uname' value='" + name + "'>");
        out.println("<h3>Hit Count: " + count + "</h3>");
        out.println("<input type='submit' value='Continue'>");
        out.println("</form>");
    }
}

```

**12. Three-tier application for rating website using Servlets**

**Database Table: feedback(id, username, rating, comment)**

**HTML Form:**

```

<form action="RatingServlet" method="post">
    Username: <input type="text" name="user"><br>
    Rating: <input type="radio" name="rate" value="positive">Positive
    <input type="radio" name="rate" value="negative">Negative<br>
    <input type="submit" value="Submit">
</form>

```

**Servlet:**

```

public class RatingServlet extends HttpServlet {
    protected void doPost(HttpServletRequest req, HttpServletResponse res) throws
IOException {
        String user = req.getParameter("user");
        String rate = req.getParameter("rate");
        try {
            Connection con = DriverManager.getConnection("jdbc:mysql://localhost:3306/db",
"root", "");
            PreparedStatement ps = con.prepareStatement("INSERT INTO feedback VALUES
(?, ?, ?)");
            ps.setInt(1, 0);
            ps.setString(2, user);
            ps.setString(3, rate);
            ps.executeUpdate();

            PrintWriter out = res.getWriter();
            out.println("Thanks for your feedback!");
        } catch (Exception e) {
            e.printStackTrace();
        }
    }
}

```

## 13. Convert static site to dynamic using Servlet and cookies

### Login Form (login.html):

```
<form action="LoginServlet" method="post">
  User ID: <input type="text" name="uid"><br>
  Password: <input type="password" name="pwd"><br>
  <input type="submit" value="Login">
</form>
```

### Servlet (LoginServlet.java):

```
public class LoginServlet extends HttpServlet {
    protected void doPost(HttpServletRequest req, HttpServletResponse res) throws
IOException {
    String uid = req.getParameter("uid");
    String pwd = req.getParameter("pwd");

    if (uid.equals("admin") && pwd.equals("123")) {
        Cookie c = new Cookie("user", uid);
        res.addCookie(c);
        res.sendRedirect("welcome.html");
    } else {
        res.getWriter().println("Invalid login");
    }
}
}
```

### web.xml Configuration:

```
<web-app>
  <servlet>
    <servlet-name>LoginServlet</servlet-name>
    <servlet-class>LoginServlet</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>LoginServlet</servlet-name>
    <url-pattern>/LoginServlet</url-pattern>
  </servlet-mapping>
</web-app>
```

## 14. PHP Script

### a. Reverse a string

### b. Calculate Simple and Compound Interest

```
<?php
// Reverse string
$str = "Hello World";
echo "Reverse: " . strrev($str) . "<br>";
```

```
// Simple & Compound Interest
$p = 1000; $r = 5; $t = 2;
$si = ($p * $r * $t) / 100;
$ci = $p * pow((1 + $r / 100), $t) - $p;
```



```
echo "Simple Interest: $si <br>";  
echo "Compound Interest: $ci <br>";  
?>
```

---

## 15. Online Bus Reservation (PHP)

### a. Validate using Regex

### b. Store form data into DB

```
<?php  
if ($_SERVER["REQUEST_METHOD"] == "POST") {  
    $name = $_POST['name'];  
    if (!preg_match("/^[A-Za-z ]+$/", $name)) {  
        echo "Invalid name!";  
    } else {  
        $conn = new mysqli("localhost", "root", "", "busdb");  
        $sql = "INSERT INTO passengers (name, age) VALUES ('$name', $_POST[age])";  
        $conn->query($sql);  
        echo "Booking Confirmed!";  
    }  
}  
?>
```

---

## 16. Contact Form using JSP/Servlet

### HTML Form:

```
<form action="ContactServlet" method="post">  
    First Name: <input type="text" name="fname"><br>  
    Last Name: <input type="text" name="lname"><br>  
    Phone: <input type="text" name="phone"><br>  
    Email: <input type="email" name="email"><br>  
    DOB: <input type="date" name="dob"><br>  
    Nickname: <input type="text" name="nick"><br>  
    <input type="submit" value="Save">  
</form>
```

### ContactServlet.java:

```
public class ContactServlet extends HttpServlet {  
    protected void doPost(HttpServletRequest req, HttpServletResponse res) throws  
    IOException {  
        String fname = req.getParameter("fname");  
        String lname = req.getParameter("lname");  
        String phone = req.getParameter("phone");  
        String email = req.getParameter("email");  
        String dob = req.getParameter("dob");  
        String nick = req.getParameter("nick");  
  
        try {  
            Connection con =  
DriverManager.getConnection("jdbc:mysql://localhost:3306/contacts", "root", "");  
            PreparedStatement ps = con.prepareStatement("INSERT INTO info VALUES (?, ?, ?,  
?, ?, ?)");  
            ps.setString(1, fname); ps.setString(2, lname); ps.setString(3, phone);  
            ps.setString(4, email); ps.setString(5, dob); ps.setString(6, nick);
```

```

        ps.executeUpdate();
        res.getWriter().println("Contact saved successfully!");
    } catch (Exception e) {
        e.printStackTrace();
    }
}
}
}

```

---

## 17. Facebook-style Registration with JavaScript validation

```

<script>
function validate() {
    let email = document.getElementById("email").value;
    let pwd = document.getElementById("pwd").value;
    if (!email.includes("@") || pwd.length < 6) {
        alert("Invalid Email or Password");
        return false;
    }
    alert("Registration Successful!");
    return true;
}
</script>

<form onsubmit="return validate()">
    Email: <input type="text" id="email"><br>
    Password: <input type="password" id="pwd"><br>
    <input type="submit" value="Register">
</form>

```

---

## 18. Shopping Mall Webpage with 4 tables + CSS

```

<!DOCTYPE html>
<html>
<head>
    <style>
        table { border-collapse: collapse; width: 80%; margin: 10px; }
        th, td { border: 1px solid black; padding: 10px; text-align: center; }
        h2 { color: darkblue; }
    </style>
</head>
<body>
    <h2>Electronics</h2>
    <table><tr><th>Item</th><th>Price</th></tr><tr><td>TV</td><td>$400</td></tr></table>
    <h2>Clothing</h2>
    <table><tr><th>Item</th><th>Price</th></tr><tr><td>Shirt</td><td>$20</td></tr></table>
    <h2>Footwear</h2>
    <table><tr><th>Item</th><th>Price</th></tr><tr><td>Shoes</td><td>$50</td></tr></table>
    <h2>Food Court</h2>
    <table><tr><th>Item</th><th>Price</th></tr><tr><td>Burger</td><td>$5</td></tr></table>
</body>
</html>

```

## 19. Passport Registration using PHP Regex

```
<?php
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $name = $_POST['name'];
    $passno = $_POST['passno'];

    if (!preg_match("/^[A-Z0-9]{8,}$/", $passno)) {
        echo "Invalid Passport Number";
    } else {
        echo "Passport Registration Successful!";
    }
}
?>
<form method="post">
    Name: <input type="text" name="name"><br>
    Passport No: <input type="text" name="passno"><br>
    <input type="submit" value="Register">
</form>
```

## 20. Display mark list from backend using Servlet

```
public class MarkServlet extends HttpServlet {
    protected void doGet(HttpServletRequest req, HttpServletResponse res) throws
IOException {
        PrintWriter out = res.getWriter();
        try {
            Connection con = DriverManager.getConnection("jdbc:mysql://localhost:3306/db",
"root", "");
            Statement st = con.createStatement();
            ResultSet rs = st.executeQuery("SELECT * FROM marks");

            out.println("<table border='1'><tr><th>Name</th><th>Mark</th></tr>");
            while (rs.next()) {
                out.println("<tr><td>" + rs.getString("name") + "</td><td>" +
rs.getInt("mark") + "</td></tr>");
            }
            out.println("</table>");
        } catch (Exception e) {
            e.printStackTrace();
        }
    }
}
```