Institute of Space Technology, Islamabad

LAB MID

Web Technologies Lab

COURSE INSTRUCTOR

Ms. Maryam

SUBMITTED BY

Name: Ariba Shuaib

Reg no: 230201075

Computer Science Department

QUESTION 1

PART 1:

```html
<!DOCTYPE html>
<html lang="en">
<head>
<body>

    <h1>IST SKILL HUB</h1>


    <p>
        Welcome to IST Skill Hub a platform designed to enhance your technical
skills
        through expert-led courses, hands-on workshops, and practical learning.
    </p>


    <h2>Key Features</h2>
    <ul>
        <li>Expert Instructors</li>
        <li>Weekly Assignments</li>
        <li>Downloadable Resources</li>
        <li>Hands-on Practical Workshops</li>
        <li>certificate on completion</li>
    </ul>


    <h2>Available Courses</h2>
    <table class="center">
        <tr>
            <th>Course Title</th>
            <th>Duration</th>
            <th>Instructor</th>
        </tr>
        <tr>
            <td>Web Development Basics</td>
            <td>4 Weeks</td>
            <td>Mr. Ali Raza</td>
        </tr>
        <tr>
            <td>Introduction to Python</td>
            <td>6 Weeks</td>
            <td>Ms. Sara Khan</td>
```

```
        </tr>
        <tr>
            <td>Graphic Design Essentials</td>
            <td>3 Weeks</td>
            <td>Mr. Ahmed Bilal</td>
        </tr>
    </table>

    <h2>Workshop Registration</h2>
    <form>

        <label>Student Name:</label><br>
        <input type="text" name="student_name" required><br><br>


        <label>Student Email:</label><br>
        <input type="email" name="student_email" required><br><br>


        <label>Select Workshop Category:</label><br>
        <select name="category">
            <option>Web Development</option>
            <option>AI & Machine Learning</option>
            <option>Graphic Design</option>
        </select>
        <br><br>
```

Output:

IST SKILL HUB

Welcome to IST Skill Hub a platform designed to enhance your technical skills through expert-led courses, hands-on workshops, and practical learning.

Key Features

- Expert Instructors
- Weekly Assignments
- Downloadable Resources
- Hands-on Practical Workshops
- certificate on completion

Available Courses

Course Title	Duration	Instructor
Web Development Basics	4 Weeks	Mr. Ali Raza
Introduction to Python	6 Weeks	Ms. Sara Khan
Graphic Design Essentials	3 Weeks	Mr. Ahmed Bilal

Workshop Registration

Student Name:

[   ]

Student Email:

[   ]

Select Workshop Category:

[Web Development ▼]

Difficulty Level:
○ Beginner
○ Intermediate
○ Advanced

[Register Now]

PART 2:

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>IST Skill Hub</title>

    <style>

        body {
            background: linear-gradient(to bottom right, #c9d6ff, #e2e2e2);
            font-family: Arial, sans-serif;
            margin: 40px;
        }


        h1 {
            text-align: center;
            color: darkblue;
            letter-spacing: 10px;
        }

        h2 {
            color: #003366;
        }


        table {
            width: 70%;
            margin: auto;
```

```css
        border-collapse: collapse;
        background: white;
    }

    table, th, td {
        border: 1px solid #000;
        padding: 10px;
    }

    th {
        background: darkgreen;
        color: white;
    }

    form {
        margin: auto;
        margin-top: 25px;
        width: 50%;
        background: #ffffff;
        padding: 20px;
        border-radius: 8px;
        box-shadow: 0 0 8px rgba(0,0,0,0.1);
    }

    input, select {
        width: 100%;
        padding: 10px;
        border-radius: 6px;
        border: 1px solid #777;
        margin-top: 5px;
        margin-bottom: 15px;
    }

    .radio-group {
        margin-bottom: 15px;
    }


    button {
        width: 100%;
        padding: 12px;
        background: darkgreen;
        color: white;
        font-weight: bold;
        border: none;
```

```
        border-radius: 6px;
        cursor: pointer;
    }

    button:hover {
        background: #0a5a0a;
    }

    </style>
</head>

<body>


    <h1>IST SKILL HUB</h1>

    <p style="text-align:center;">
        Welcome to IST Skill Hub — a platform designed to help you improve your
technical skills
        with hands-on courses, expert guidance, and practical workshops.
    </p>

    <h2>Key Features</h2>
    <ul>
        <li>Expert Instructors</li>
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    <table>
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```

```html
            <td>6 Weeks</td>
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        <tr>
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            <td>Mr. Ahmed Bilal</td>
        </tr>
    </table>

    <!-- Workshop Registration Form -->
    <h2>Workshop Registration</h2>

    <form>
        <label>Student Name:</label>
        <input type="text" name="student_name" required>

        <label>Student Email:</label>
        <input type="email" name="student_email" required>

        <label>Select Workshop Category:</label>
        <select name="category">
            <option>Web Development</option>
            <option>AI & Machine Learning</option>
            <option>Graphic Design</option>
        </select>

        <label>Difficulty Level:</label>

        <div class="radio-group">
            <input type="radio" name="difficulty" value="beginner"> Beginner <br>
            <input type="radio" name="difficulty" value="intermediate">
Intermediate <br>
            <input type="radio" name="difficulty" value="advanced"> Advanced
        </div>

        <button type="submit">Register Now</button>
    </form>

</body>
</html>
```

OUTPUT:

PART 3:

```html
<div class="container mt-4">
    <h2 class="mb-3">Workshop Registration</h2>

    <div class="row">

        <div class="col-md-6">

            <div class="mb-3">
                <label class="form-label">Student Name</label>
                <input type="text" class="form-control" placeholder="Enter your
name">
            </div>


            <div class="mb-3">
                <label class="form-label">Student Email</label>
                <input type="email" class="form-control" placeholder="Enter your
email">
            </div>
        </div>

        <div class="col-md-6">
```

```html
<div class="mb-3">
    <label class="form-label">Select Workshop Category</label>
    <select class="form-select">
        <option>Web Development</option>
        <option>AI & Machine Learning</option>
        <option>Graphic Design</option>
    </select>
</div>


<label class="form-label">Difficulty Level</label>

<div class="form-check">
    <input class="form-check-input" type="radio" name="difficulty"
value="beginner">
    <label class="form-check-label">Beginner</label>
</div>

<div class="form-check">
    <input class="form-check-input" type="radio" name="difficulty"
value="intermediate">
    <label class="form-check-label">Intermediate</label>
</div>

<div class="form-check mb-3">
    <input class="form-check-input" type="radio" name="difficulty"
value="advanced">
    <label class="form-check-label">Advanced</label>
</div>


<button class="btn btn-success mt-3 w-100">Register Now</button>

    </div>
  </div>
</div>
```

OUTPUT:

Workshop Registration

Student Name ariba

Student Email aribashuaib0@gmail.com

Select Workshop Category AI & Machine Learning ✓

Difficulty Level

○ Beginner

○ Intermediate

⦿ Advanced

[Register Now]

QUESTION 2

PART 1:

```javascript
> let enrolled = ["Ahmed", "Lara", "Sofia"];
  let newEnrollments = ["Raza", "Minal", "Yasir"];

  // 1. Merge Lists Using Spread Operator
  let allStudents = [...enrolled, ...newEnrollments];

  // 2. Add New Entries Using push()
  allStudents.push("Hamza", "Noor");

  // 3. Remove Last Entry Using pop()
  let removedStudent = allStudents.pop();

  // 4. Extract a Subset Using slice()
  let firstBatch = allStudents.slice(0, 3);

  // 5. Print Total Using Template Literals
  console.log(`Total Students Enrolled: ${allStudents.length}`);

  // 6. Print Names Using an Arrow Function
  const printNames = () => {
      allStudents.forEach(student => {
          console.log(`-> Student: ${student}`);
      });
  };
```

OUTPUT:

```
// Execute to test
printNames();
```

Total Students Enrolled: 7	VM145:17
-> Student: Ahmed	VM145:22
-> Student: Lara	VM145:22
-> Student: Sofia	VM145:22
-> Student: Raza	VM145:22
-> Student: Minal	VM145:22
-> Student: Yasir	VM145:22
-> Student: Hamza	VM145:22

‹· undefined

PART 3:

```javascript
> // 1. Create the function returning a Promise
function getCourseDetails() {
    return new Promise((resolve, reject) => {
        setTimeout(() => {
            const data = {
                title: "Full Stack Development",
                level: "Intermediate",
                hours: 40
            };
            resolve(data);
        }, 2000); // Resolves after 2 seconds
    });
}

// 2. Write the async function named loadCourse
async function loadCourse() {
    try {
        // Calls the Promise using await
        const course = await getCourseDetails();

        // Logs the formatted message
        console.log("Course: ${course.title} (${course.level}) —
${course.hours} Hours");
    } catch (error) {
        // 3. Error handling using try...catch
        console.error("Error fetching course details:", error);
    }
}

// Execute the function
loadCourse();
```
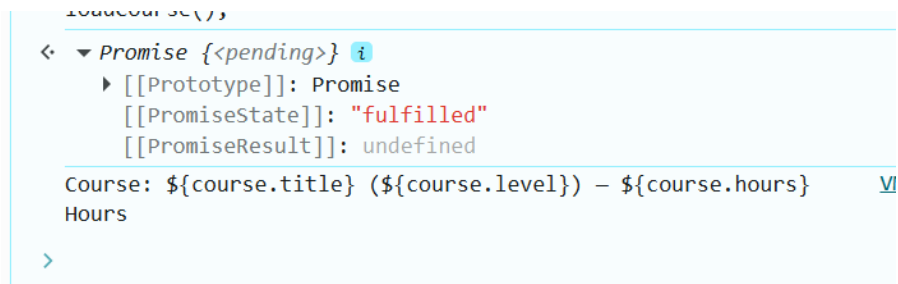
OUTPUT:

```
loadCourse();

<·  ▼ Promise {<pending>} ⓘ
      ▶ [[Prototype]]: Promise
        [[PromiseState]]: "fulfilled"
        [[PromiseResult]]: undefined
    Course: ${course.title} (${course.level}) — ${course.hours}        VI
    Hours

>
```

PART 2:

```javascript
const messageBox = document.getElementById("message");

// Message 1
messageBox.innerHTML = "Fetching your workshops... Please wait.";

setTimeout(() => {
    // Message 2
    messageBox.innerHTML = "Workshops loaded successfully!";

    setTimeout(() => {
        // Message 3
        messageBox.innerHTML = "Rendering workshop details...";
    }, 1500);

}, 1500);
```
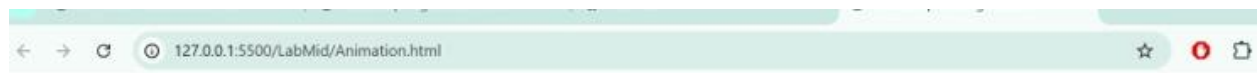
Output:

```
←  →  C  ⓘ 127.0.0.1:5500/LabMid/Animation.html                              ☆
```

Fetching your workshops... Please wait.

Workshops loaded successfully!

Rendering workshop details...