

## LAB EXERCISE:HTML

Create Github account & make repository.

### Part 1: Create a GitHub Account

#### 1. Go to GitHub:

- Visit <https://github.com>

#### 2. Sign Up:

- Click "**Sign up**" (top right).
- Enter your **email address** and click "**Continue**".
- Choose a **username**.
- Create a **password**.
- Verify your email (check inbox for a GitHub verification email).
- Complete CAPTCHA and continue.
- Choose free plan (or paid if you want).
- You now have a GitHub account!

### Part 2: Create a New Repository

1. **Log in to GitHub** (if not already logged in).
2. On the top right, click the **+** icon → "**New repository**"  
Or directly go to: <https://github.com/new>
3. **Repository Details:**
  - **Repository name:** e.g., my-first-repo
  - **Description** (optional): e.g., "My first HTML project"
  - Choose **Public** (visible to everyone) or **Private**
  - Check "**Add a README file**" (optional, but useful)
  - Click "**Create repository**"

Explain phases of SDLC life cycle.

The **Software Development Life Cycle (SDLC)** is a structured process used by developers and project managers to design, develop, test, and maintain software efficiently. It helps ensure high-quality software is delivered on time and within budget.

### Phases of the SDLC Life Cycle

Here are the **main 7 phases** of SDLC:

#### 1. Requirement Gathering and Analysis

- **Purpose:** Understand what the client or end-user needs.
- **Activities:**
  - Stakeholder meetings
  - Requirement documentation (SRS – Software Requirements Specification)
  - Feasibility study
- **Output:** Finalized requirement document

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## 2. System Design

- **Purpose:** Convert requirements into a blueprint for development.
- **Activities:**
  - High-Level Design (HLD): Architecture, modules
  - Low-Level Design (LLD): Database design, UI design
- **Output:** Design documents

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## 3. Implementation / Coding

- **Purpose:** Developers write code based on the design.
- **Activities:**
  - Frontend and backend development
  - Database integration
- **Output:** Working software/code

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## 4. Testing

- **Purpose:** Ensure the software is bug-free and meets requirements.
- **Activities:**
  - Unit Testing
  - Integration Testing
  - System Testing
  - User Acceptance Testing (UAT)
- **Output:** Tested and validated software

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## 5. Deployment

- **Purpose:** Deliver the product to users or clients.
- **Activities:**
  - Hosting on servers
  - Cloud deployment
  - App store release (for mobile)
- **Output:** Live working application

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## 6. Maintenance

- **Purpose:** Keep the software updated and bug-free after launch.
- **Activities:**
  - Fixing issues
  - Adding new features
  - Updating security patches
- **Output:** Updated and improved software

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## 7. Evaluation (optional phase)

- **Purpose:** Review the project's success and learn from mistakes.
- **Activities:**
  - Feedback collection
  - Documentation for future projects

## SDLC Models

There are several SDLC models:

- Waterfall Model (linear)
- Agile Model (iterative)
- Spiral Model
- V-Model
- Iterative Model

### Create a simple HTML webpage that includes:

- ⇒ A header (<header>), footer (<footer>), main section (<main>), and aside section (<aside>).
- ⇒ A paragraph with some basic text.
- ⇒ A list (both ordered and unordered).
- ⇒ A link that opens in a new tab.

```
• <!DOCTYPE html>
• <html lang="en">
• <head>
•   <meta charset="UTF-8">
•   <title>My Personal Webpage</title>
•   <style>
•
•     header, footer {
•       background-color: #333;
•       color: white;
•       text-align: center;
•     }
•
•   </style>
• </head>
• <body>
•
•   <!-- Header Section -->
•   <header>
•     <h1>Welcome to My Webpage</h1>
•     <p>Learning HTML the right way!</p>
•   </header>
•
•   <!-- Main Content Section -->
•   <main>
•     <h2>About Me</h2>
```

```

•   <p>Hello! I'm a beginner web developer learning how to create beautiful and
functional websites using HTML and CSS.</p>
•
•   <h3>My Goals (Ordered List)</h3>
•   <ol>
•       <li>Learn HTML</li>
•       <li>Understand CSS</li>
•       <li>Explore JavaScript</li>
•   </ol>
•
•   <h3>My Hobbies (Unordered List)</h3>
•   <ul>
•       <li>Reading</li>
•       <li>Coding</li>
•       <li>Photography</li>
•   </ul>
•
•   <p>
Visit my favorite website for web tutorials:
•   <a href="https://www.w3schools.com" target="_blank">W3Schools</a>
•   </p>
• </main>
• </body>
• </html>

```

## Create a contact form with the following fields:

- ⇒ Full name (text input)
- ⇒ Email (email input)
- ⇒ Phone number (tel input)
- ⇒ Subject (dropdown menu)
- ⇒ Message (textarea)
- ⇒ Submit button

### Additional Requirements:

- ⇒ Use appropriate form validation using `required`, `minlength`, `maxlength`, and `pattern`.
- ⇒ Link form labels with their corresponding inputs using the `for` attribute.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Contact Form</title>
</head>
<body>

  <h1>Contact Us</h1>

  <form action="#" method="post">

    <!-- Full Name -->
    <label for="fullname">Full Name:</label><br>
    <input type="text" id="fullname" name="fullname" required minlength="3"
maxlength="50"><br><br>

    <!-- Email -->
    <label for="email">Email Address:</label><br>
    <input type="email" id="email" name="email" required><br><br>

    <!-- Phone -->
    <label for="phone">Phone Number:</label><br>
    <input type="tel" id="phone" name="phone" required pattern="[6-9][0-9]{9}"
title="Enter a 10-digit phone number"><br><br>

    <!-- Subject Dropdown -->
    <label for="subject">Subject:</label><br>
    <select id="subject" name="subject" required>
      <option value="">-- Please select --</option>
      <option value="general">General Inquiry</option>
      <option value="support">Support</option>
      <option value="feedback">Feedback</option>
      <option value="other">Other</option>
    </select><br><br>

    <!-- Message -->
    <label for="message">Your Message:</label><br>
    <textarea id="message" name="message" rows="5" required minlength="10"
maxlength="500"></textarea><br><br>

    <!-- Submit Button -->
    <button type="submit">Submit</button>

  </form>

</body>
</html>
```

## Create a product catalog table that includes the following columns:

- ⇒ Product Name
- ⇒ Product Image (use placeholder image URLs)
- ⇒ Price
- ⇒ Description
- ⇒ Availability (in stock, out of stock)

### *Additional Requirements:*

- ⇒ Use `thead` for the table header.
- ⇒ Add a border and some basic styling using inline CSS.
- ⇒ Use `colspan` or `rowspan` to merge cells where applicable.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Product Catalog</title>
</head>
<body>

  <h2>Product Catalog</h2>

  <table style="width: 100%; border-collapse: collapse; border: 2px solid #444;">
    <thead>
      <tr style="background-color: #f2f2f2;">
        <th style="border: 1px solid #444; padding: 8px;">Product Name</th>
        <th style="border: 1px solid #444; padding: 8px;">Product Image</th>
        <th style="border: 1px solid #444; padding: 8px;">Price</th>
        <th style="border: 1px solid #444; padding: 8px;">Description</th>
        <th style="border: 1px solid #444; padding: 8px;">Availability</th>
      </tr>
    </thead>
    <tbody>
      <tr>
        <td style="border: 1px solid #444; padding: 8px;">Wireless Mouse</td>
        <td style="border: 1px solid #444; padding: 8px; text-align: center;">
          
        </td>
        <td style="border: 1px solid #444; padding: 8px;">$15.99</td>
        <td style="border: 1px solid #444; padding: 8px;">Ergonomic wireless mouse with
USB receiver.</td>
        <td style="border: 1px solid #444; padding: 8px;">In Stock</td>
      </tr>
      <tr>
        <td style="border: 1px solid #444; padding: 8px;">Bluetooth Headphones</td>
        <td style="border: 1px solid #444; padding: 8px; text-align: center;"
rowspan="2">
          
        </td>
        <td style="border: 1px solid #444; padding: 8px;">$29.99</td>
```

```

        <td style="border: 1px solid #444; padding: 8px;">Over-ear headphones with noise
cancellation.</td>
        <td style="border: 1px solid #444; padding: 8px;">Out of Stock</td>
    </tr>
    <tr>
        <td style="border: 1px solid #444; padding: 8px;">Bluetooth Earbuds</td>
        <td style="border: 1px solid #444; padding: 8px;">$19.99</td>
        <td style="border: 1px solid #444; padding: 8px;">Compact wireless earbuds with
mic.</td>
        <td style="border: 1px solid #444; padding: 8px;">In Stock</td>
    </tr>
    <tr>
        <td colspan="5" style="border: 1px solid #444; padding: 8px; text-align: center;
background-color: #e6ffe6;">
            Special Offer: Free shipping on orders over $50!
        </td>
    </tr>
</tbody>
</table>

</body>
</html>
```

