10. Ajax

Step 1 : save the file as index.html

Step 2: info.txt (any text in that)

Step 3: info.json({"name": "Akshi","age":25})

Step 4: command -> python -m http.server 8000(minimize)

Step 5:browser -> http://localhost:8000/index.html

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>LAB 10</title>
    <script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
</head>
<body>
    <h1>ajax() without jQuery</h1>
    <button onclick="ajaxWithoutJquery()">Load Text</button>
    <div id="content1"></div>
    <h1>ajax() with jQuery</h1>
    <button onclick="ajaxWithJquery()">Load Text</button>
    <div id="content2"></div>
    <h1>getJSON()</h1>
    <button onclick="getJson()">Load JSON</button>
    <div id="content3"></div>
    <h1>parseJSON()</h1>
    <form onsubmit="parseJson(event)">
        <input type="text" placeholder="Enter JSON">
        <button type="submit">Parse</button>
    </form>
    <div id="content4"></div>
    <script>
        const ajaxWithoutJquery = () => {
            const xhr = new XMLHttpRequest();
            xhr.onload = () => xhr.status === 200 && (content1.innerHTML = xhr.responseText);
            xhr.open('GET', 'info.txt', true);
```

```javascript
      xhr.send();
    };
    const ajaxWithJquery = () => {
      $.ajax({
        url: 'info.txt',
        success: data => $('#content2').html(data),
        error: () => alert("Error loading text")
      });
    };
    const getJson = () => {
      $.getJSON('info.json', data => {
        $('#content3').html(data.map(item => `<li>${JSON.stringify(item)}</li>`).join(''));
      });
    };
    const parseJson = event => {
      event.preventDefault();
      try {
        const json = $.parseJSON($('input').val());
        $('#content4').html(JSON.stringify(json));
      } catch {
        alert("Invalid JSON");
      }
    };
  </script>
</body>
</html>
```

9. JQuery

Step 1 : jquery.html

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>jQuery Demo</title>
    <style>
        body { font-family: Arial, sans-serif; margin: 20px; }
        .box { width: 100px; height: 100px; background: blue; color: white; display: flex; align-items: center; justify-content: center; margin-top: 20px; border-radius: 10px; }
        button { margin: 10px; padding: 10px; cursor: pointer; }
    </style>
    <script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
    <script>
        $(function () {
            $('#appendContent').click(() => {
                $('#paragraph').append(' This content is appended.');
                $('#list').append('<li>New Item</li>');
            });

            $('#animateElement').click(() => {
                $('#box').animate({ width: '200px', height: '200px', marginLeft: '50px' }, 1000, function () {
                    $(this).css('background', 'red');
                });
            });
        });
    </script>
</head>
<body>
    <h1>jQuery Demo</h1>
    <p id="paragraph">This is an example paragraph.</p>
    <ul id="list">
        <li>Item 1</li>
```

```html
        <li>Item 2</li>
        <li>Item 3</li>
    </ul>
    <div id="box" class="box">Animate Me</div>
    <button id="appendContent">Append Content</button>
    <button id="animateElement">Animate Element</button>
</body>
</html>
```

8. a) visitors_counter.php

```php
<?php
$counterFile = "visitor_count.txt";
if (!file_exists($counterFile)) file_put_contents($counterFile, "0");
$visitorCount = (int)file_get_contents($counterFile) + 1;
file_put_contents($counterFile, $visitorCount);
?>
```

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Visitor Counter</title>
    <style>
        body { font-family: Arial, sans-serif; background: #f4f4f4; margin: 0; padding: 20px; }
        .container { max-width: 600px; margin: auto; background: #fff; padding: 20px; border-radius: 8px; box-shadow: 0 4px 6px rgba(0, 0, 0, 0.1); }
        h1, p { text-align: center; color: #333; }
        .counter { font-size: 36px; font-weight: bold; color: #3498db; }
    </style>
</head>
<body>
<div class="container">
    <h1>Visitor Counter</h1>
    <p>Welcome to our website! Here is the number of visitors:</p>
    <p class="counter"><?php echo $visitorCount; ?></p>
</div>
</body>
</html>
```

b)   same as record

7 Json conversion

Json.html

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Multi Converter Tool</title>
  <style>
    body { font-family: Arial, sans-serif; background: #f4f4f4; padding: 20px; }
    .container { max-width: 800px; margin: auto; background: #fff; padding: 20px; border-radius: 10px; box-shadow: 0 4px 8px rgba(0, 0, 0, 0.1); }
    textarea, input, button { width: 100%; margin: 10px 0; padding: 10px; border-radius: 5px; }
    button { background: #007BFF; color: #fff; border: none; cursor: pointer; }
    button:hover { background: #0056b3; }
    .output { padding: 10px; background: #e9ecef; border-radius: 5px; white-space: pre-wrap; }
  </style>
</head>
<body>
  <div class="container">
    <h1>Multi Converter Tool</h1>

    <h3>JSON to JavaScript Object</h3>
    <textarea id="jsonToObjectInput" placeholder="Enter JSON"></textarea>
    <button onclick="convertJSONToObject()">Convert JSON</button>
    <div id="jsonToObjectOutput" class="output"></div>

    <h3>Convert JSON Dates</h3>
    <textarea id="jsonDateInput" placeholder='Enter JSON with dates'></textarea>
    <button onclick="convertJSONDates()">Convert Dates</button>
    <div id="jsonDateOutput" class="output"></div>

    <h3>JSON & CSV Converter</h3>
    <textarea id="jsonCsvInput" placeholder="Enter JSON or CSV"></textarea>
    <button onclick="convertToCSV()">To CSV</button>
    <button onclick="convertToJSON()">To JSON</button>
```

```html
<div id="jsonCsvOutput" class="output"></div>

<h3>String to Hash</h3>
<input type="text" id="stringToHashInput" placeholder="Enter string">
<button onclick="generateHash()">Generate Hash</button>
<textarea id="stringToHashOutput" class="output" readonly></textarea>
</div>

<script>
  const getElem = id => document.getElementById(id);

  function convertJSONToObject() {
    try { getElem('jsonToObjectOutput').innerText = JSON.stringify(JSON.parse(getElem('jsonToObjectInput').value), null, 2); }
    catch (err) { getElem('jsonToObjectOutput').innerText = `Invalid JSON: ${err.message}`; }
  }

  function convertJSONDates() {
    try {
      const obj = JSON.parse(getElem('jsonDateInput').value);
      Object.keys(obj).forEach(key => obj[key] = isNaN(new Date(obj[key])) ? obj[key] : new Date(obj[key]).toLocaleString());
      getElem('jsonDateOutput').innerText = JSON.stringify(obj, null, 2);
    } catch (err) {
      getElem('jsonDateOutput').innerText = `Invalid JSON: ${err.message}`;
    }
  }

  function convertToCSV() {
    try {
      const json = JSON.parse(getElem('jsonCsvInput').value);
      const keys = Object.keys(json[0]);
      const csv = keys.join(",") + "\n" + json.map(row => keys.map(k => row[k]).join(",")).join("\n");
      getElem('jsonCsvOutput').innerText = csv;
    } catch { getElem('jsonCsvOutput').innerText = "Invalid JSON!"; }
  }
```

```
function convertToJSON() {

  try {

    const lines = getElem('jsonCsvInput').value.split("\n");

    const [headers, ...rows] = lines.map(line => line.split(","));

    const json = rows.map(row => Object.fromEntries(headers.map((h, i) => [h, row[i]])));

    getElem('jsonCsvOutput').innerText = JSON.stringify(json, null, 2);

  } catch { getElem('jsonCsvOutput').innerText = "Invalid CSV!"; }

}


async function generateHash() {

  const input = getElem('stringToHashInput').value;

  if (!input) return alert('Enter a string!');

  const hash = Array.from(new Uint8Array(await crypto.subtle.digest('SHA-256', new
TextEncoder().encode(input))))

          .map(b => b.toString(16).padStart(2, '0')).join('');

  getElem('stringToHashOutput').value = hash;

}
 </script>
</body>
</html>
```

6. calculator.html

```html
<!DOCTYPE html>
<html>

<head>
    <title>Simple Calculator</title>
    <style>
        body {
            font-family: Arial, sans-serif;
            display: flex;
            justify-content: center;
            align-items: center;
            height: 100vh;
            margin: 0;
        }

        .calculator {
            background: #fff;
            padding: 20px;
            border-radius: 12px;
            box-shadow: 0 4px 8px rgba(0, 0, 0, 0.2);
            text-align: center;
        }

        h1 {
            background: #000;
            color: #fff;
            padding: 10px;
            border-radius: 8px;
        }

        input,
        select,
        button {
```

```
      width: 100%;

      margin: 10px 0;

      padding: 12px;

      border: 1px solid #ccc;

      border-radius: 8px;

    }


    button {

      background: #007bff;

      color: #fff;

      border: none;

      cursor: pointer;

    }


    #result {

      margin-top: 20px;

      padding: 10px;

      border-radius: 8px;

      background: #e9f9ef;

    }
  </style>
</head>

<body>
  <div class="calculator">
    <h1>Simple Calculator</h1>
    <input type="number" id="num1" placeholder="Enter first number">
    <input type="number" id="num2" placeholder="Enter second number">
    <select id="operation">
      <option value="">Select Operation</option>
      <option value="sum">Sum</option>
      <option value="product">Product</option>
      <option value="difference">Difference</option>
      <option value="remainder">Remainder</option>
      <option value="quotient">Quotient</option>
```

```html
      <option value="power">Power</option>
      <option value="sqrt">Square Root</option>
      <option value="square">Square</option>
    </select>
    <button onclick="calculate()">Calculate</button>
    <div id="result"></div>
  </div>

  <script>
    function calculate() {
      const num1 = parseFloat(document.getElementById('num1').value);
      const num2 = parseFloat(document.getElementById('num2').value);
      const operation = document.getElementById('operation').value;
      const resultDiv = document.getElementById('result');
      let result;

      if (isNaN(num1) || (isNaN(num2) && operation !== "sqrt" && operation !== "square")) {
        result = "Please enter valid numbers.";
      } else {
        switch (operation) {
          case "sum":
            result = `Sum: ${num1 + num2}`;
            break;
          case "product":
            result = `Product: ${num1 * num2}`;
            break;
          case "difference":
            result = `Difference: ${num1 - num2}`;
            break;
          case "remainder":
            result = `Remainder: ${num1 % num2}`;
            break;
          case "quotient":
            result = num2 === 0 ? "Cannot divide by zero" : `Quotient: ${num1 / num2}`;
            break;
```

```javascript
        case "power":
            result = `Power: ${Math.pow(num1, num2)}`;
            break;
        case "sqrt":
            result = `Square Root: ${num1 >= 0 ? Math.sqrt(num1) : "Invalid"} and ${num2 >= 0 ?
Math.sqrt(num2) : "Invalid"}`;
            break;
        case "square":
            result = `Square: ${num1 ** 2} and ${num2 ** 2}`;
            break;
        default:
            result = "Select a valid operation.";
        }
    }
    resultDiv.innerHTML = result;
    }
</script>
</body>

</html>
```

5. newspaper.html

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Wildlife News</title>
    <style>
        body {
            font-family: 'Arial', sans-serif;
            color: #000;
            margin: 0;
            padding: 20px;
            display: flex;
            flex-direction: column;
            min-height: 100vh;
        }
        header {
            background-color: #d37c36;
            color: #fff;
            padding: 20px;
            display: flex;
            justify-content: space-between;
            text-align: center;
            box-shadow: 0 4px 6px rgba(0, 0, 0, 0.1);
        }
        header a {
            font-size: 25px;
            color: #fff;
            text-decoration: none;
        }
        nav a {
            font-size: 18px;
            margin: 0 10px;
        }
```

```css
.content {
    display: flex;
    flex: 1;
    margin: auto;
    padding: 20px 0;
    gap: 20px;
    position: relative;
}
main {
    flex: 1;
    display: grid;
    grid-template-columns: 1fr;
    gap: 20px;
    background-color: #fff;
    border-radius: 12px;
    padding: 25px;
    box-shadow: rgba(9, 30, 66, 0.25) 0px 1px 1px;
}
article {
    background-color: #fff;
    padding: 15px;
    box-shadow: rgba(9, 30, 66, 0.25) 0px 1px 1px;
    border-radius: 7px;
    color: #000;
}
figure {
    text-align: center;
    margin: 0;
}
figcaption {
    font-size: 0.9em;
    color: #666;
}
img {
    max-width: 100%;
```

```
      height: auto;

      border-radius: 8px;

    }

    aside {

      width: 350px;

      border-radius: 8px;

      box-shadow: 0 4px 6px rgba(0, 0, 0, 0.1);

      position: sticky;

      top: 20px;

      color: #333;

      padding: 20px;

      background-color: #fff;

      margin-left: 20px;

    }

    footer {

      background-color: #403dd1;

      color: #fff;

      padding: 20px;

      text-align: center;

      font-size: 18px;

      margin-top: auto;

    }

  </style>

</head>

<body>

  <header>

    <a href="#">Wildlife News</a>

    <nav>

      <a href="https://india.mongabay.com/features/">Features</a>

      <a href="https://india.mongabay.com/videos/">Videos</a>

    </nav>

  </header>

  <div class="content">

    <main>

      <article>
```

```html
      <h2>Weeds of change</h2>

      <figure>

        <img src="https://imgs.mongabay.com/wp-content/uploads/sites/30/2024/10/21093556/12.-Women-
workers-making-water-hyacinth-products-in-factory-ROPE-International-768x512.jpg" alt="Weeds of change">

          <figcaption>Weeds of change</figcaption>

      </figure>

      <p>Exploring the connection between humans and the natural world. Weeds are part of everyone's life.</p>

      <a href="https://india.mongabay.com/2024/10/weeds-of-change/">Read more...</a>

    </article>

    <article>

      <h2>A fishing cat survey indicates robust population density</h2>

      <figure>

        <img
src="https://upload.wikimedia.org/wikipedia/commons/8/88/Fishing_Cat_%28Prionailurus_viverrinus%29_3.jpg"
alt="Fishing cat">

          <figcaption>A fishing cat survey indicates robust population density</figcaption>

      </figure>

      <p>Research reveals the crucial ecological role that fishing cats play by regulating rodent populations.</p>

      <a href="https://india.mongabay.com/2024/10/a-fishing-cat-survey-indicates-robust-population-
density/">Read more...</a>

    </article>

  </main>

  <aside class="related-news">

    <h3>MORE INFO</h3>

    <ul>

      <li><a href="https://india.mongabay.com/?s=">Search</a></li>

      <li><a href="https://india.mongabay.com/specials/">Specials</a></li>

    </ul>

  </aside>

</div>

<section>

  <h2>Recent Posts</h2>

  <div>

    <table>

      <caption>AUTHORS OF ARTICLES</caption>

      <thead>

        <tr>
```

```html
        <th>AUTHOR</th>
        <th>ARTICLE</th>
      </tr>
    </thead>
    <tbody>
      <tr>
        <td>Divya Kilikar</td>
        <td><a href="https://india.mongabay.com/2024/07/does-size-matter-how-leopards-on-forest-fringes-choose-livestock-kill/">Does size matter? How leopards on forest fringes choose livestock kill</a></td>
      </tr>
      <tr>
        <td>Laasya Shekhar</td>
        <td><a href="https://india.mongabay.com/2024/10/climate-change-habitat-loss-drive-elephants-to-look-for-newer-pastures/">Climate change, habitat loss drive elephants to look for newer pastures</a></td>
      </tr>
    </tbody>
  </table>
  </div>
  </section>
  <footer>
    <p>2024 Wildlife News. All rights reserved.</p>
  </footer>
</body>
</html>
```

4. registration.html

```html
<!DOCTYPE html>
<html>
<head>
  <title>Registration Form</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      color: #000;
      background-color: #f0f4f8;
      display: flex;
      justify-content: center;
      align-items: center;
      height: 100vh;
      padding: 20px;
    }
    h2 {
      color: blue;
    }
    table {
      border-collapse: collapse;
      background-color: #fff;
      box-shadow: 0 0 15px rgba(0, 0, 0, 0.1);
      width: 500px; /* Increase container size */
      margin: auto;
    }
    td {
      padding: 15px;
    }
    label {
      color: rgb(0, 11, 0);
      font-weight: bold;
    }
```

```css
input[type="text"],
input[type="email"],
input[type="password"],
input[type="date"],
select,
textarea {
    width: calc(100% - 32px);
    padding: 8px;
    margin: 8px 0;
    border: 1px solid #ccc;
    border-radius: 4px;
    box-sizing: border-box;
}
input[type="submit"],
input[type="reset"] {
    width: calc(50% - 32px);
    padding: 10px;
    border: none;
    border-radius: 4px;
    cursor: pointer;
    margin: 8px 16px;
}
input[type="submit"] {
    background-color: #4CAF50;
    color: white;
}
input[type="reset"] {
    background-color: #f44336;
    color: white;
}
</style>
</head>
<body>
    <center>
        <h2>Registration Form</h2>
```

```html
<table border="1">
   <form action="#" method="post">
      <tr>
         <td><label for="firstName">First Name:</label></td>
         <td><input type="text" id="firstName" name="firstName" required></td>
      </tr>
      <tr>
         <td><label for="lastName">Last Name:</label></td>
         <td><input type="text" id="lastName" name="lastName" required></td>
      </tr>
      <tr>
         <td><label for="email">Email:</label></td>
         <td><input type="email" id="email" name="email" required></td>
      </tr>
      <tr>
         <td><label for="password">Password:</label></td>
         <td><input type="password" id="password" name="password" required></td>
      </tr>
      <tr>
         <td><label for="dob">Date of Birth:</label></td>
         <td><input type="date" id="dob" name="dob"></td>
      </tr>
      <tr>
         <td><label>Gender:</label></td>
         <td>
            <input type="radio" id="male" name="gender" value="male">
            <label for="male">Male</label>
            <input type="radio" id="female" name="gender" value="female">
            <label for="female">Female</label>
         </td>
      </tr>
      <tr>
         <td><label for="country">Country:</label></td>
         <td>
            <select id="country" name="country">
```

```html
                  <option value="india">India</option>
                  <option value="usa">USA</option>
                  <option value="canada">Canada</option>
                  <option value="uk">UK</option>
                </select>
              </td>
            </tr>
            <tr>
              <td><label for="bio">Bio:</label></td>
              <td><textarea id="bio" name="bio" rows="4"></textarea></td>
            </tr>
            <tr>
              <td colspan="2" align="center">
                <input type="submit" value="Register">
                <input type="reset" value="Reset">
              </td>
            </tr>
          </form>
        </table>
      </center>
</body>
</html>
```

3.