```
1)
<!DOCTYPE html>
<head>
 <title>My First Web Page | vtucode</title>
</head>
<body>
 <!-- Moving text -->
 <marquee>Welcome to vtucode</marquee>
 <!-- Different heading tags -->
 <h1>This is an H1 heading</h1>
 <h2>This is an H2 heading</h2>
 <h3>This is an H3 heading</h3>
 <h4>This is an H4 heading</h4>
 <h5>This is an H5 heading</h5>
 <h6>This is an H6 heading</h6>
 <!-- Paragraph -->
  This is a paragraph demonstrating the use of the paragraph tag in HTML.
 <!-- Horizontal line -->
  <hr>
 <!-- Line break -->
  This is a line of text before the break.<br/>br>This is a line of text after the break.
 <!-- Block Quote -->
 <blook<br/>duote>
   This is a blockquote. It is used to display a quotation or excerpt from another source.
  </blockquote>
 <!-- Pre tag -->
 <
This is preformatted text.
It preserves spaces and line breaks.
  <!-- Different Logical Style tags -->
 This is <b>bold</b> text.
 This is <i>italicized</i> text.
 This is <u>underlined</u> text.
 This is <sup>superscript</sup> text.
  This is <sub>subscript</sub> text.
 This is <em>emphasized</em> text.
  This is <strong>strong</strong> text.
 This is <mark>highlighted</mark> text.
 This is <small>small</small> text.
 This is <del>deleted</del> text.
 This is <ins>inserted</ins> text.
  This is <code>inline code</code> text.
</body>
</html>
```

```
2)
<!DOCTYPE html>
<head>
<title>Time Table | vtucode</title>
  <style>
   body {
     font-family: Arial, sans-serif;
table {
     width: 80%;
     margin: 20px auto;
     border-collapse: collapse; }
th,
td {border: 1px solid #ddd;
     padding: 8px;
     text-align: center;
   } th {
     background-color: #f4f4f4;
     color: #333;
   tr:nth-child(even) {
     background-color: #f9f9f9;
   tr:nth-child(odd) {
     background-color: #e6f7ff;
   .lab-hour {
     background-color: #ffcccc;
   .elective-hour {
     background-color: #ccffcc;
   .highlight {
     font-weight: bold;
     color: #d63384;
   }
   tfoot {
     background-color: #e0e0e0;
     font-weight: bold;
 </style>
</head>
<body>
 <h1 style="text-align: center;">Time Table</h1>
 <thead>
     Day/Time
       9:00 - 10:00
       10:00 - 11:00
       11:00 - 12:00
       12:00 - 1:00
       Lunch Break
       2:00 - 3:00
       3:00 - 4:00
```

```
</thead>
Monday
 Math
 English
 Physics Lab
 Elective
 Break
 Elective
 History
Tuesday
 Elective
 Biology
 Math
 Chemistry Lab
 Geography
 PE
Wednesday
 History
 Computer Lab
 English
 Math
 Physics
 Elective
Thursday
 PE
 History
 Geography
 Elective
 Biology
 Math
Friday
 Biology Lab
 Math
 English
 Physics
 Elective
 Chemistry
<tfoot>
End of Timetable
 > > >
```

```
3)
<!DOCTYPE html>
<head>
 <title>Styled HTML Page | vtucode</title>
 <link rel="stylesheet" href="style.css">
</head>
<body>
 <h2>Main Heading</h2>
 <h3>Subheading</h3>
 This is a paragraph demonstrating the basic text styling applied by CSS.
   This is a styled <strong>div</strong> element with padding and a light border. Inside the
div, we can also use
   <span>span elements</span> that have their own styles, like this bold and orange text.
 Current time: <time>10:30 AM</time>
 <img src="https://vtucode.in/wp-content/uploads/2024/08/Web-Technology-Lab.jpg"
alt="Placeholder Image">
 Visit <a href="https://vtucode.in">vtucode.in</a> to learn more about our services.
 This paragraph is highlighted with a yellow background.
 This text is centered using a class selector.
 This is a special paragraph with unique styles applied through an
ID selector.
</body>
</html>
Css
* {
 margin: 0;
 padding: 0;
 box-sizing: border-box;
}
h2 {
 color: #2c3e50;
 font-size: 2em;
 margin-bottom: 10px;
h3 {
 color: #34495e;
 font-size: 1.5em;
 margin-bottom: 8px;
hr {
 border: 0;
 height: 2px;
 background-color: #e74c3c;
 margin: 20px 0;
 font-family: 'Arial', sans-serif;
 line-height: 1.6;
 margin: 10px 0;
}
```

```
div {
  padding: 15px;
  border: 1px solid #bdc3c7;
  background-color: #ecf0f1;
}
span {
  color: #e67e22;
  font-weight: bold;
time::before {
  content: ' 🔯 ';
  color: #16a085;
img {
  margin-left: 15px;
  height: 300px;
  width: 400px;
  border-radius: 8px;
  box-shadow: 0 4px 8px rgba(0, 0, 0, 0.2);
  max-width: 100%;
}
a {
  text-decoration: none;
  color: #ea0e4c;
}
a:hover {
  color: #6200ee;
  text-decoration: underline;
}
.highlight {
  background-color: yellow;
  padding: 3px;
}
.center {
  text-align: center;
#special-paragraph {
  font-size: 1.2em;
  color: #8e44ad;
  background-color: #f5f5f5;
  padding: 10px;
  border-left: 5px solid #8e44ad;
}
h2,
h3,
p {
  margin-left: 20px;
```

```
4)
<!DOCTYPE html>
<head>
  <title>Registration Form | vtucode</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      background-color: #f0f4f8;
      margin: 0;
      padding: 20px;
      display: flex;
      justify-content: center;
      align-items: center;
      min-height: 100vh }
    .container {
      width: 100%:
      max-width: 600px;
      background-color: #fff;
      padding: 20px;
      border-radius: 8px;
      box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
      display: flex;
      flex-direction: column;
      gap: 20px }
    h2 {
      text-align: center;
      color: #333;
      margin: 0; }
    .form-group {
      display: flex;
      flex-direction: column;
      gap: 5px;
      margin-bottom: 10px; }
    label {
      font-size: 14px;
      color: #555; }
    input[type="text"],
    input[type="email"],
    input[type="password"],
    input[type="date"],
    select,
    textarea {
      padding: 10px;
      border: 1px solid #ccc;
      border-radius: 4px;
      font-size: 14px; }
    .gender-options {
      display: flex;
      gap: 10px;
      align-items: center; }
    input[type="submit"],
    input[type="reset"] {
      padding: 10px 20px;
      border: none;
```

```
border-radius: 4px;
     cursor: pointer;
                                                      <optionvalue="india">India</option>
     font-size: 16px;
flex: 1; }
                                                              </select>
   .button-group {
                                                            </div>
     display: flex;
                                                            <div class="form-group">
                                                              <label for="bio">Bio:</label>
     gap: 10px;
     justify-content: center; }
                                                      <textarea
    input[type="submit"] {
                                                      id="bio"name="bio"rows="4">
     background-color: #4CAF50;
                                                      </textarea>
     color: white; }
                                                            </div>
    input[type="reset"] {
                                                            <div class="button-group">
     background-color: #f44336;
                                                              <input type="submit"
                                                      value="Register">
     color: white; }
    .form-group textarea {
                                                              <input type="reset"
                                                      value="Reset">
      margin-bottom: 10px}
 </style></head><body>
                                                            </div>
 <div class="container">
                                                          </form>
    <h2>Registration Form</h2>
                                                        </div>
    <form action="#" method="post">
                                                      </body>
      <div class="form-group">
                                                      </html>
       <label for="firstName">First Name:</label>
        <input type="text" id="firstName"
name="firstName" required>
     </div>
     <div class="form-group">
        <label for="lastName">Last Name:</label>
        <input type="text" id="lastName" name="lastName" required>
      </div>
      <div class="form-group">
        <label for="email">Email:</label>
       <input type="email" id="email" name="email" required>
      </div>
      <div class="form-group">
       <label for="password">Password:</label>
        <input type="password" id="password" name="password" required>
      </div>
      <div class="form-group">
        <label for="dob">Date of Birth:</label>
        <input type="date" id="dob" name="dob">
      </div> <div class="form-group">
        <label>Gender:</label>
        <div class="gender-options">
          <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>
       </div>
      <div class="form-group">
       <label for="country">Country:</label>
      <select id="country" name="country">
       <option value="usa">USA</option>
      <option value="canada">Canada</option>
      <option value="uk">UK</option>
```

```
5) <!DOCTYPE html>
<head>
  <title>Newspaper Page | vtucode</title>
  <style>* {
      margin: 0;
      padding: 0;
      box-sizing: border-box; }
    body {
      padding: 20px;
      font-family: 'Arial', sans-serif;
      color: #000000;
      display: flex;
      flex-direction: column;
      min-height: 100vh; }
    header {
      margin-bottom: 30px;
      border-radius: 10px;
      align-items: center;
      background-color: #7b38f7;
      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;
      font-weight: 600;
      color: #fff;
      text-decoration: none; }
    nav {
      display: flex;
      gap: 20px;
      color: #fff;
      text-align: center;
                           }
    nav a {
      font-size: 18px;
      color: #fff;
      text-decoration: none;
      font-weight: bold;
    nav a:hover {
      text-decoration: underline;}
    .content {
      display: flex;
      justify-content: space-between;
      flex: 1;
      margin: auto;
      padding: 20px 0;
      gap: 20px;
      position: relative;
                           }
    .main-content {
      cursor: pointer;
      flex: 1;
      display: grid;
```

```
grid-template-columns: repeat(auto-fill, minmax(300px, 1fr));
 gap: 20px;
 background-color: #fff;
 border-radius: 12px;
  padding: 25px;
  box-shadow: rgba(9, 30, 66, 0.25) 0px 1px 1px, rgba(9, 30, 66, 0.13) 0px 0px 1px 1px; }
aside {
  border: 1px solid #ccc;
 padding: 20px;
 width: 350px;
  border-radius: 8px;
  box-shadow: 0 4px 6px rgba(0, 0, 0, 0.1);
  position: -webkit-sticky;
 position: sticky;
 top: 20px;
 color: #333;
 right: 0;
  margin-left: 20px; }
.related-news h3 {
  text-align: center;
  border-radius: 7px;
  padding: 8px;
  background: #000;
  color: #ffffff;
  font-size: 1.4em;
 margin-bottom: 15px;
                         }
.related-news ul {
 list-style: outside;
 padding: 7px;
 margin: 0;
.related-news li {
  margin-bottom: 12px;
.related-news a {
  text-decoration: none;
 color: #7b38f7;
 font-weight: bold;
 transition: color 0.3s ease; }
.related-news a:hover {
  text-decoration: underline;
footer {
 border-radius: 10px;
 background-color: #7b38f7;
 color: #fff;
  padding: 20px;
  font-weight: 500;
 text-align: center;
 margin-top: auto;
  font-size: 18px;
article {
  transition: all 0.3s ease;
 background-color: #fff;
  padding: 15px;
  box-shadow: rgba(9, 30, 66, 0.25) 0px 1px 1px, rgba(9, 30, 66, 0.13) 0px 0px 1px 1px;
  border-radius: 7px;
```

```
color: #000000; }
figure {
 background-color: #fafafa;
  padding: 10px;
 border: 1px solid #ddd;
 border-radius: 8px;
 text-align: center;
  margin: 0;
figcaption {
 font-size: 0.9em;
  color: #666z }
img {
 max-width: 100%;
 height: auto;
 border-radius: 8px;
                       }
section {
  padding: 20px;
 width: 100%;
 background-color: #fff;
 border-radius: 8px;
  box-shadow: rgba(9, 30, 66, 0.25) 0px 1px 1px, rgba(9, 30, 66, 0.13) 0px 0px 1px 1px; }
section h2 {
  color: #fff;
 background: #000;
  font-size: 24px;
 border-radius: 10px;
  text-align: center;
  padding: 10px;
  margin-bottom: 30px;
table {
  width: 100%;
 border-collapse: collapse; }
caption {
  font-size: 18px;
 margin-bottom: 10px;
 color: #555;
thead {
 background-color: #007BFF;
 color: #fff;
th, td {
 padding: 12px;
 text-align: left;
                    }
  font-weight: bold; }
tbody tr:nth-child(even) {
 background-color: #f9f9f9; }
tbody tr:hover {
 background-color: #eaeaea;
                                 }
@media (max-width: 600px) {
 th, td {
   padding: 8px;
   font-size: 14px;
                      } }
caption {
 background-color: #d9d9d9;
```

```
padding: 10px;
      font-weight: bold;
      border-bottom: 2px solid #ddd;
     border-radius: 8px 8px 0 0;
      font-size: 1.1em;
     color: #333; }
    section {
      margin-top: 40px;
      margin-bottom: 50px;
    article h2 {
     color: #7b38f7;
      font-size: 1.3em;
     margin-bottom: 12px;
                               }
    article p {
     text-align: left;
     line-height: 1.2;
     margin-top: 10px;
  article:hover {
     background-color: #e7ddfb;
    @media (max-width: 768px) {
     .content {
        flex-direction: column;
        padding: 10px;
     aside {
       width: 100%;
        margin-top: 20px;
        position: static;
        margin-left: 0;
      .main-content {
        grid-template-columns: 1fr; }
  </style></head><body> <header>
    <a href="#">Newspaper</a>
    <nav>
      <a href="#">Home</a>
      <a href="#">About</a>
      <a href="#">Contact</a>
      <a href="#">Services</a>
      <a href="#">Marketing</a>
      <a href="#">Updates</a>
    </nav> </header>
<div class="content">
<main class="main-content">
<article> <h2>Article Title 1</h2>
<figure>
<img src="https://via.placeholder.com/600x400" alt="Placeholder Image">
<figcaption>Image Caption</figcaption>
</figure <p>This is the content of the first article. Lorem ipsum dolor sit amet, consectetur
adipiscing elitSed do eiusmod tempor incididunt ut labore et dolore magna aliqua.
</article><article> <h2>Article Title 2</h2>
<figure><img src="https://via.placeholder.com/600x400" alt="Placeholder Image">
<figcaption>Image Caption</figcaption>
</figure> This is the content of the second article. Lorem ipsum dolor sit amet, consectetur
adipiscing elit.
```

Sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

```
</article> <article>
<h2>Article Title 3</h2>
<figure>
<img src="https://via.placeholder.com/600x400" alt="Placeholder Image">
<figcaption>Image Caption</figcaption>
</figure>
This is the content of the third article. Lorem ipsum dolor sit amet, consectetur adipiscing
Sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.
</article> <article>
<h2>Article Title 4</h2>
<figure>
<img src="https://via.placeholder.com/600x400" alt="Placeholder Image">
<figcaption>Image Caption</figcaption>
</figure>
This is the content of the fourth article. Lorem ipsum dolor sit amet, consectetur adipiscing
elit.
Sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.
</article>
<article>
<h2>Article Title 5</h2>
<figure>
<img src="https://via.placeholder.com/600x400" alt="Placeholder Image">
<figcaption>Image Caption</figcaption>
</figure>
<This is the content of the fourth article. Lorem ipsum dolor sit amet, consectetur adipiscing</p>
elit. Sed do eius mod tempor incididunt ut labore et dolore magna aliqua. 
</article><article>
<h2>Article Title 6</h2><figure>
<img src="https://via.placeholder.com/600x400" alt="Placeholder Image">
<figcaption>Image Caption</figcaption>
</figure>
This is the content of the fourth article. Lorem ipsum dolor sit amet, consectetur adipiscing
elit.Sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.
</article></main>
<aside class="related-news">
<h3>Related News</h3>
<a href="#">Related News 1</a>
                                                    Author 2
<a href="#">Related News 2</a>
                                                    Post 3
<a href="#">Related News 3</a>
                                                    2024-08-28
</aside></div>
                                                    Author 3
<section><h2>Recent Posts</h2>
                                                    <div>
                                                    </div>
<caption>List of Posts/caption>
                                                    </section><footer>
<thead>
                                                    © 2024 Newspaper. All rights
Post Title
                                                    reserved.
Date
                                                    </footer></body>
Author
                                                    </html>
</thead>
Post 1
2024-08-30
Author 1
```

Post 22024-08-29

```
6)
<!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 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');
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:
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>
```

```
7) <!DOCTYPE html>
<head>
<script src="https://cdnjs.cloudflare.com/ajax/libs/crypto-js/4.1.1/crypto-js.min.js"></script>
<title>Simple Converter | vtucode</title>
<style>
* {
padding: 0;
margin: 0;
box-sizing: border-box;
body {
font-family: Arial, sans-serif;
color: #000000;
}
.container {
width: 60%;
margin: 0 auto;
padding: 20px;
.head-title h1 {
font-size: 28px;
padding: 10px;
color: #fff;
margin-bottom: 50px;
.head-title {
width: 100%;
background: #000;
text-align: center;
border-radius: 10px; }
.section {
margin-bottom: 40px;
padding: 20px;
border-radius: 8px;
background: #fff;
box-shadow: rgba(0, 0, 0, 0.1) 0px 1px 3px 0px, rgba(0, 0, 0, 0.06) 0px 1px 2px 0px;
transition: all 0.3s;
overflow: hidden;}
.section h2 {
color: #000000;
font-size: 20px;
margin-bottom: 15px;}
textarea {
font-size: 14px;
width: 100%;
height: 120px;
margin-bottom: 15px;
padding: 12px;
border-radius: 8px;
border: 1px solid #00000022;
```

```
box-sizing: border-box;
transition: border-color 0.3s ease, box-shadow 0.3s ease;}
textarea:focus {
background: transparent;
border: 1px solid #00000022;
border-color: #007BFF;
box-shadow: 0 0 12px rgba(0, 123, 255, 0.5);
outline: none;}
input[type="text"] {
width: calc(100\% - 24px);
padding: 12px;
border-radius: 8px;
border: 1px solid #ddd;
box-sizing: border-box;
transition: border-color 0.3s ease, box-shadow 0.3s ease;
margin-bottom: 15px;}
input[type="text"]:focus {
border-color: #007BFF;
box-shadow: 0 0 8px rgba(0, 123, 255, 0.5);
outline: none;}
button {
display: inline-block;
padding: 15px 15px;
margin: 10px 0;
font-weight: 600;
border: none:
border-radius: 7px;
background-color: #007BFF;
color: #fff;
cursor: pointer;
font-size: 16px;
transition: box-shadow 0.3s ease, transform 0.3s ease;}
button:hover {
box-shadow: 0 0 0 2px #fff, 0 0 0 4px #007BFF;}
button:focus {
box-shadow: 0 0 0 2px #fff, 0 0 0 4px #007BFF;}
pre {
display: none;
background: #f8f9fa;
border: 1px solid #ddd;
padding: 15px;
border-radius: 8px;
overflow: auto:
transition: opacity 0.3s ease;}
.error {
margin-top: 10px;
font-size: 14px;
color: #000;
background: #ffdddd;
border-color: #ff0000;
padding: 10px;}
.success {
margin-top: 10px;
font-size: 14px;
```

```
color: #000;
background: #6ef08d38;
border-color: #47e56d;
padding: 10px;}
.adjust-area {
margin-top: 30px;
}</style></head>
<body>
<div class="container">
<div class="head-title">
<h1>Simple Converter</h1>
</div><div class="section">
<h2>1. Convert JSON Text to JavaScript Object</h2>
<textarea id="jsonInput" placeholder="Enter JSON here..."></textarea>
<button onclick="convert[sonToObject()">Convert [SON</button>
</div><div class="section">
<h2>2. Convert JSON Results into Date</h2>
<textarea id="jsonDateInput" placeholder='Enter JSON with date in "yyyy-mm-dd"
format'></textarea>
<button onclick="convert[sonToDate()">Convert to Date/button>
</div><div class="section">
<h2>3. Convert JSON to CSV and CSV to JSON</h2>
<textarea id="jsonCsvInput" placeholder="Enter JSON for CSV conversion..."></textarea>
<button onclick="convertIsonToCsv()">ISON to CSV</button>
<textarea id="csvInput" placeholder="Enter CSV here..." class="adjust-area"></textarea>
<button onclick="convertCsvToJson()">CSV to JSON</button>
</div>
<div class="section">
<h2>4. Create Hash from String</h2>
<input type="text" id="hashInput" placeholder="Enter string to hash">
<button onclick="createHash()">Create Hash</button>
</div></div>
<script>
function showResult(id, text, isSuccess) {
const element = document.getElementById(id);
element.textContent = text;
element.className = isSuccess ? 'success' : 'error';
element.style.display = 'block';
element.style.opacity = '1';
}
function convertJsonToObject() {
const jsonInput = document.getElementBvId('jsonInput').value;
try {
const jsonObject = JSON.parse(jsonInput);
showResult('jsonOutput', JSON.stringify(jsonObject, null, 2), true);
} catch (error) {
showResult('jsonOutput', 'Invalid JSON', false); } }
function convert[sonToDate() {
```

```
const jsonDateInput = document.getElementById('jsonDateInput').value;
try {
const data = ISON.parse(jsonDateInput);
if (data.date && !isNaN(new Date(data.date).getTime())) {
const date = new Date(data.date);
showResult('jsonDateOutput', date.toString(), true);
} else {
showResult('jsonDateOutput', 'Invalid Date Format', false); }
} catch (error) {
showResult('jsonDateOutput', 'Invalid JSON', false); } }
function convert[sonToCsv() {
const jsonInput = document.getElementById('jsonCsvInput').value;
try {
const jsonArray = JSON.parse(jsonInput);
if (Array.isArray(jsonArray) && jsonArray.length > 0) {
const keys = Object.keys(jsonArray[0]);
const csv = [
keys.join(','),
...jsonArray.map(row => keys.map(key => JSON.stringify(row[key])).join(','))
1.ioin('\n');
showResult('csvOutput', csv, true);
} else {
showResult('csvOutput', 'Invalid JSON: Expected an array with objects.', false); }
} catch (error) {
showResult('csvOutput', 'Invalid JSON', false); } }
function convertCsvToIson() {
const csvInput = document.getElementById('csvInput').value;
trv {
const lines = csvInput.trim().split('\n');
if (lines.length > 1) {
const keys = lines[0].split(',');
if (keys.length > 0) {
const jsonArray = lines.slice(1).map(line => {
const values = line.split(',');
return keys.reduce((obj, key, index) => {
obj[key] = values[index];
return obi:
}, {});
});
showResult('jsonCsvOutput', JSON.stringify(jsonArray, null, 2), true);
showResult('isonCsvOutput', 'Invalid CSV: No columns found.', false); }
} else {
showResult('jsonCsvOutput', 'Invalid CSV: No data found.', false); }
} catch (error) {
showResult('jsonCsvOutput', 'Invalid CSV', false); }}
function createHash() {
const hashInput = document.getElementBvId('hashInput').value.trim();
if (hashInput.length > 0) {
const hash = CryptoJS.SHA256(hashInput).toString();
showResult('hashOutput', hash, true);
} else {
showResult('hashOutput', 'Input cannot be empty', false); } }
</script></body></html>
```

```
8a) <?php
$counterFile = "counter.txt";
if (!file_exists($counterFile)) {
  file_put_contents($counterFile, "0");
$currentCount = file_get_contents($counterFile);
$newCount = $currentCount + 1;
file_put_contents($counterFile, $newCount);
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Visitor Counter | vtucode</title>
  <style>
   body {
      font-family: Arial, sans-serif;
      text-align: center;
      margin: 0;
     padding: 0;
     display: flex;
      flex-direction: column;
     justify-content: center;
     height: 100vh;
     background-color: #f4f4f9;
     color: #333;
   }
    .container {
     background: #fff;
      padding: 20px;
     box-shadow: 0 2px 10px rgba(0, 0, 0, 0.1);
      border-radius: 8px;
     margin: 0 auto;
     width: 60%;
   h1 {
     font-size: 2.5em;
     margin: 0;
   }
   p {
     font-size: 1.2em;
     color: #555;
  </style></head>
<body>
  <div class="container">
    <h1>Welcome to Our Website!</h1>
    You are visitor number: <strong><?php echo $newCount; ?></strong>
  </div>
</body>
</html>
```

```
8b) <?php
$servername = "localhost";
$username = "root";
$password = "";
$dbname = "students";
$conn = new mysgli($servername, $username, $password, $dbname);
if ($conn->connect_error) {
die("Connection failed: ".$conn->connect_error); }
$sql = "SELECT * FROM students";
$result = $conn->query($sql);
students = []
if ($result->num_rows > 0) {
while ($row = $result->fetch_assoc()) {
$students[] = $row;}}
function selectionSort(&$arr, $key)
{ $n = count($arr);
for (\$i = 0; \$i < \$n - 1; \$i++) 
$minIndex = $i;
for (\$j = \$i + 1; \$j < \$n; \$j++) {
if ($arr[$i][$key] < $arr[$minIndex][$key]) {
minIndex = i; }
$temp = $arr[$i];
$arr[$i] = $arr[$minIndex];
$arr[$minIndex] = $temp;} }
selectionSort($students, 'name');
?> <!DOCTYPE html> <head>
<title>Sorted Student Records | vtucode</title>
<style> body {
font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
background-color: #f0f2f5;
color: #333;
margin: 0; padding: 20px; }
h2 {
text-align: center;
color: #4A90E2;
margin-bottom: 20px;
} table {
width: 100%;
border-collapse: collapse;
background-color: #fff;
border-radius: 10px;
overflow: hidden:
box-shadow: 0 2px 8px rgba(0, 0, 0, 0.1);
margin: 0 auto;
} th, td {
padding: 12px 15px;
text-align: left;
border-bottom: 1px solid #ddd;
} th {
background-color: #4A90E2;
color: white;
text-transform: uppercase;
letter-spacing: 0.03em;
} tr {
```

```
transition: background-color 0.3s ease; }
tr:hover {
background-color: #f1f1f1;
} td {
font-size: 0.9em;
color: #555; }
@media (max-width: 768px) {
table,
th, td {
display: block;
width: 100%; }
th, td {
box-sizing: border-box; }
margin-bottom: 15px;
display: block;
box-shadow: 0 2px 5px rgba(0, 0, 0, 0.1); }
th {
position: absolute;
top: -9999px;
left: -9999px; }
td {
border: none:
position: relative;
padding-left: 50%;
text-align: right; }
td:before {
content: attr(data-label);
position: absolute;
left: 0; width: 50%;
padding-left: 15px;
font-weight: bold;
text-align: left;
text-transform: uppercase;
color: #4A90E2; } }
</style></head><body>
<h2>Sorted Student Records by Name</h2>
<thead>
ID
Name
USN
Branch
Email
Address
</thead>
<?php foreach ($students as $student): ?>
<?php echo htmlspecialchars($student['id']); ?>
<?php echo htmlspecialchars($student['name']); ?>
<?php echo htmlspecialchars($student['usn']); ?>
<?php echo htmlspecialchars($student['branch']); ?>
<?php echo htmlspecialchars($student['email']); ?>
<?php echo htmlspecialchars($student['address']); ?>
 <?php endforeach; ?>
</body></html>
```

```
9) <!DOCTYPE html>
<head>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
<title>jQuery Example | vtucode</title>
<style>body {
font-family: 'Roboto', sans-serif;
background-color: #f4f7f6;
margin: 0; padding: 0;
display: flex:
justify-content: center;
align-items: center;
height: 100vh; }
.container {
text-align: center;
background: #fff;
padding: 30px;
border-radius: 12px;
box-shadow: 0 4px 20px rgba(0, 0, 0, 0.1);
transition: transform 0.3s ease-in-out; }
.container:hover {
transform: scale(1.02); }
#paragraph {
margin-bottom: 20px;
color: #333;
font-size: 18px;
line-height: 1.5; }
#list {
margin-bottom: 20px;
list-style: none;
padding: 0; }
#list li {
background: #e8f0fe;
margin: 5px 0;
padding: 10px;
border-radius: 8px;
transition: background 0.3s; }
#list li:hover {
background: #d0e2fe; }
.box {
padding: 0 10px;
width: 100px;
height: 100px;
background-color: #007bff;
margin: 20px auto;
line-height: 100px;
color: white;
text-align: center;
border-radius: 8px;
transition: all 0.3s ease; }
button {
padding: 12px 24px;
margin: 10px;
cursor: pointer;
border: none;
```

```
border-radius: 6px;
font-size: 16px;
background: #007bff;
color: white:
transition: box-shadow 0.3s, transform 0.2s;
box-shadow: 0 4px 10px rgba(0, 0, 0, 0.1);
button:hover {
box-shadow: 0 0 0 2px #fff, 0 0 0 4px #007bff;
button:focus {
box-shadow: 0 0 0 2px #fff, 0 0 0 4px #007bff;
button:active {
background: #004494;
transform: translateY(0);
</style>
</head>
<body>
<div class="container">
This is an existing paragraph.
List item 1
List item 2
<div class="box" id="box">Animate me!</div>
<button id="appendButton">Append Content</button>
<button id="animateButton">Animate Box</button>
</div>
 <script>
    $(document).ready(function() {
     $("#appendButton").click(function () {
       $("#paragraph").append(" Appended text.");
       $("#list").append("New appended list item");
     $("#animateButton").click(function(){
       $("#box").stop(true, true).css({
         width: "100px",
         height: "100px",
         opacity: 1,
         backgroundColor: "blue"
       }).animate({
         width: "200px",
         height: "200px",
         opacity: 0.5
       }, 1000, function () {
         $(this).css("background-color", "green");
       });
     });
   });
 </script></body></html>
```

```
10) .txt file
                hi this is example text...
              {"name":"John Doe","age":30,"city":"New
data.josn
York", "skills": ["JavaScript", "React", "Node.is"], "address": {"street": "123 Elm
Street","zipcode":"10001"},"projects":[{"name":"Website
Redesign","year":2023,"technologies":["HTML","CSS","JavaScript"]},{"name":"Mobile
App","year":2024,"technologies":["React Native","Expo"]}]}
         <!DOCTYPE html><head>
<title>AJAX Examples | vtucode</title>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.0/jquery.min.js"></script>
<style>body {
font-family: Arial, sans-serif;
margin: 0;
padding: 0;background-color: #f4f4f9;
}h1 {
text-align: center;
color: #333;
padding: 20px 0;}
#content {
flex-direction: column;
display: flex;
max-width: 600px;
margin: 20px auto;
padding: 20px;
border: 1px solid #ddd;
border-radius: 8px;
background-color: #fff:
box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);}
button {display: inline-block;
padding: 10px 15px;
margin: 12px; border: none;
border-radius: 5px;
background-color: #007bff;
color: #fff; font-size: 16px;
cursor: pointer;
transition: box-shadow 0.3s;}
button:hover {
box-shadow: 0 0 0 2px #fff, 0 0 0 4px #007bff;}
button:focus { box-shadow: 0 0 0 2px #fff, 0 0 0 4px #007bff;}
#output {display: none;
margin-top: 20px;
padding: 10px;
border-radius: 5px;
white-space: pre-wrap;
max-height: 300px;
overflow-y: auto;}
#output.plain-ajax {
background-color: #f0f8ff;
border: 1px solid #b0c4de;}
#output.jquery-ajax {
background-color: #f5fffa;
border: 1px solid #98fb98;}
#output.jquery-json {
background-color: #fffaf0;
border: 1px solid #ffd700;}
```

```
#output.parse-json {
background-color: #fff0f5;
border: 1px solid #ff69b4;
}</style></head><body>
<h1>AJAX Examples</h1>
<div id="content">
<button id="plain-ajax-btn">Load Text (Plain AJAX)
<button id="jquery-ajax-btn">Load Text (jQuery AJAX)
<button id="iguery-json-btn">Load ISON (iOuery get[SON)/button>
<button id="parse-json-btn">Load and Parse ISON (jQuery get)</button>
<div id="output"></div></div><script>
function showOutput(className) {
const output = document.getElementById('output');
output.className = className;
output.style.display = 'block';}
document.getElementById('plain-ajax-btn').addEventListener('click', function () {
var xhr = new XMLHttpRequest();
xhr.open('GET', 'textfile.txt', true);
xhr.onload = function () {
if (xhr.status === 200) {
document.getElementById('output').innerText = xhr.responseText;
document.getElementById('output').innerText = 'Error loading file.';}
showOutput('plain-ajax'); };
xhr.send(); });
$('#jquery-ajax-btn').on('click', function () {
$.ajax({url: 'textfile.txt',
method: 'GET',
success: function (data) {
$('#output').text(data); },
error: function () {
$('#output').text('Error loading file.'); }
}).always(function() {
showOutput('jquery-ajax');
                                                                .fail(function() {
$('#jquery-json-btn').on('click', function () {
                                                                $('#output').text('Error loading JSON
$.getISON('data.ison')
                                                                file.'); })
.done(function (data) {
                                                                .always(function() {
$('#output').text(JSON.stringify(data, null, 2)); })
                                                                showOutput('parse-json');}); });
.fail(function () {
                                                                </script></body></html>
$('#output').text('Error loading JSON file.');
}).always(function() {
showOutput('jquery-json'); });});
$('#parse-json-btn').on('click', function () {
$.get('data.json')
.done(function (data) {
try { let jsonData;
if (typeof data === 'string') {
jsonData = JSON.parse(data);
} else {
jsonData = data;
} $('#output').text(JSON.stringify(jsonData, null, 2));
```

} catch (e) {

\$('#output').text('Error parsing ISON: ' + e.message); }})