

1. How do you create a button that triggers a JavaScript alert message?

```
<!DOCTYPE html>
<html>
<body>
<button onclick="alert('Hello, welcome to JavaScript!')>Greet Me</button>
</body>
</html>
```

The screenshot shows a web-based code editor interface. On the left, the code is displayed:

```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>
<button onclick="alert('Hello, welcome to
JavaScript!')">Greet Me</button>
</body>
</html>
```

In the center, there is a preview window showing a button labeled "Greet Me". When the button is clicked, an alert box appears with the text "Hello, welcome to JavaScript!". On the right side, there is a sidebar with the title "Python - Get Started - W3Schools" and a thumbnail for the next video.

The screenshot shows the same web-based code editor interface as the previous one, but the alert message is now displayed directly within the preview window. The message "Hello, welcome to JavaScript!" is shown in a dark overlay box with an "OK" button. The rest of the interface remains the same, including the sidebar and the "Activate Windows" message at the bottom.

2. Write a script to change the text of a heading when a button is clicked.

```

<script>
function changeText() {
document.getElementById("heading").innerText = "Hello User!";
}
</script>
<h2 id="heading">Welcome Guest</h2>
<button onclick="changeText()">Click to Change Text</button>

```

The screenshot shows a web browser window with the following details:

- Left Panel (Code View):** Displays the original HTML code with syntax highlighting.
- Center Panel (Result View):** Shows the rendered HTML output with the heading "Welcome Guest" and a "Change Text" button.
- Right Panel (Ads):**
 - An ad for "Python - Variable Names - W3Schools" featuring a cartoon character and the text "What's in a name?".
 - An ad for "GoDaddy" featuring a woman at a desk with a laptop, the text "Get scalable and secure hosting that grows with your business", and a "99.9% UPTIME STATUS" badge.
- Bottom Right:** A "REMOVE ADS" link and a message from Microsoft encouraging Windows activation.

The screenshot shows a web browser window with the following details:

- Left Panel (Code View):** Displays the modified HTML code where the heading text has been changed to "Hello User!".
- Center Panel (Result View):** Shows the rendered HTML output with the heading "Hello User!" and a "Change Text" button.
- Right Panel (Ads):**
 - An ad for "Python - Variables - W3Schools" featuring a cartoon character and the text "PYTHON VARIABLES".
 - A large, mostly blank light gray area representing removed ads.
- Bottom Right:** A "REMOVE ADS" link and a message from Microsoft encouraging Windows activation.

3. How can you use console.log, console.warn, and console.error to debug a variable?

```

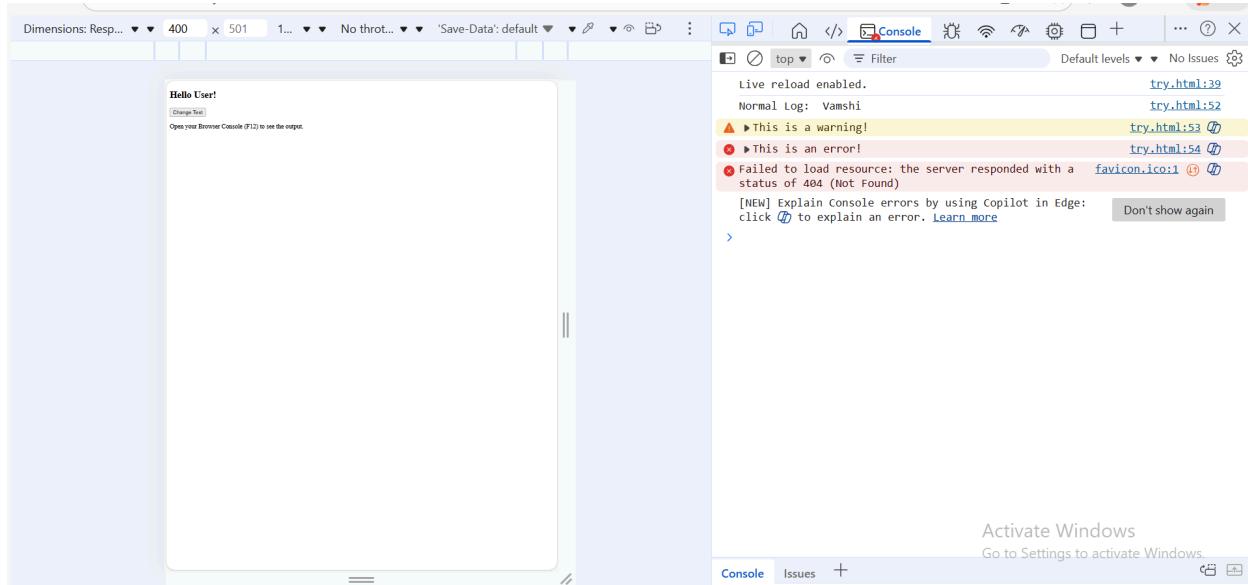
var name = "Vamshi";
console.log("Name:", name);

```

```

if (name === "") {
  console.warn("Name is empty");
}
if (name === null) {
  console.error("Name is null!");
}

```



4. How do you link an external JavaScript file to an HTML document?

```

<script src="main.js"></script>
<button onclick="showMsg()">Run JS</button>

```

5. Create a function that changes a div's background to a random color from an array.

```

function changeColor() {
  let colors = ["red", "green", "blue", "orange", "purple"];
  let random = Math.floor(Math.random() * colors.length);
  document.getElementById("myBox").style.backgroundColor = colors[random];
}

```

The screenshot shows a W3Schools Python Syntax editor interface. On the left, the code is displayed:

```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>

<div id="box" style="width:100px; height:100px;
border:1px solid#000;">Color Me</div>
<button onclick="changeColor()">Random Color</button>

<script>
function changeColor() {
    let colors = ["red", "green", "blue", "orange",
"purple"];
    let random = Math.floor(Math.random() * colors.length);
    document.getElementById("box").style.backgroundColor =
colors[random];
}
</script>

</body>

<p>Open your Browser Console (F12) to see the output.</p>
</html>
```

The right side shows the result of running the script. A purple square with the text "Color Me" is displayed, with a "Random Color" button below it. A message says "Open your Browser Console (F12) to see the output." To the right, there is an advertisement for Cathay Pacific and a "REMOVE ADS" link.

6. Write a function to display the full current date and time on the page.

```
function showDateTime() {
document.getElementById("output").innerText = new Date();
}
```

The screenshot shows a W3Schools Python Syntax editor interface. On the left, the code is displayed:

```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>

<button onclick="document.getElementById('dt').innerText =
new Date()">Show Date/Time</button>
<p id="dt"></p>

</body>
</html>
```

The right side shows the result of running the script. A button labeled "Show Date/Time" is shown, and below it, the text "Wed Feb 11 2026 09:43:16 GMT+0530 (India Standard Time)" is displayed. To the right, there is an advertisement for Cathay Pacific and a "REMOVE ADS" link.

7. Create a basic script that adds two numbers from input fields and displays the result.

```
function addNumbers() {
let a = Number(document.getElementById("num1").value);
let b = Number(document.getElementById("num2").value);
```

```
document.getElementById("result").innerText = "Sum: " + (a + b);
}
```

The screenshot shows a web browser window with the following content:

- Left Panel (Code View):** Contains the following HTML and JavaScript code:


```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>

<input id="n1" type="number"> + <input id="n2" type="number">
<button onclick="add()">Sum</button>
<p id="res"></p>

<script>
function add() {
    let val = Number(document.getElementById('n1').value) +
    Number(document.getElementById('n2').value);
    document.getElementById('res').innerText = "Result: " +
    val;
}
</script>

</body>
</html>
```
- Middle Panel (Result View):** Shows a form with two input fields containing "34" and "56", and a button labeled "Sum". Below the button, the text "Result: 90" is displayed.
- Right Panel (Sidebar):** Displays a sidebar with the title "Python - Syntax - W3Schools...". It includes a thumbnail for "Python Variables Names" (6:36), a "CONTINUE" button, a "CHANGE" button, and a "CATHAY PACIFIC" advertisement for "Book summer adventures this winter!".
- Bottom Right (Footer):** Shows a "REMOVE ADS" link and a message: "Activate Windows Go to Settings to activate Windows."

8. How do you show or hide a paragraph using a single button?

```
function toggleParagraph() {
let p = document.getElementById("text");
p.style.display = (p.style.display === "none") ? "block" : "none";
}
```

The screenshot shows a web browser window with the following content:

- Left Panel (Code View):** Contains the following HTML and JavaScript code:


```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>

<p id="para">Peek-a-boo!</p>
<button onclick="toggle()">Toggle</button>

<script>
function toggle() {
    let p = document.getElementById("para");
    p.style.display = (p.style.display === "none") ?
    "block" : "none";
}
</script>

</body>
</html>
```
- Middle Panel (Result View):** Shows a button labeled "Toggle". Above the button, the text "Peek-a-boo!" is visible.
- Right Panel (Sidebar):** Displays a sidebar with the title "Python - Syntax - W3Schools...". It includes a thumbnail for "Python Variables Names" (6:36), a "CONTINUE" button, a "CHANGE" button, and a "CATHAY PACIFIC" advertisement for "Book summer adventures this winter!".
- Bottom Right (Footer):** Shows a "REMOVE ADS" link and a message: "Activate Windows Go to Settings to activate Windows."

Result Size: 492 x 530

Get your own website

```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>

<p id="para">Peek-a-boo!</p>
<button onclick="toggle()">Toggle</button>

<script>
function toggle() {
  let p = document.getElementById("para");
  p.style.display = (p.style.display === "none") ?
"block" : "none";
}
</script>

</body>
</html>
```

Toggle

Python - Syntax - W3Schools

PYTHON

Up next Python - Variable

CONTINUE

CHANGE

Python Variable Names 02:36

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REMOVE ADS

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Go to Settings to activate Windows.

9. Create buttons to increase or decrease the font size of a text block dynamically.

```
let fontSize = 16;
function increaseFont() {
  fontSize += 2;
  document.getElementById("text").style.fontSize = fontSize + "px";
}
function decreaseFont() {
  fontSize -= 2;
  document.getElementById("text").style.fontSize = fontSize + "px";
}
```

Result Size: 492 x 530

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```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>

<p id="text" style="font-size:16px;">Resize me!</p>
<button onclick="resize(2)">Zoom In</button>
<button onclick="resize(-2)">Zoom Out</button>

<script>
let size = 16;
function resize(amt) {
  size += amt;
  document.getElementById("text").style.fontSize = size +
"px";
}
</script>

</body>
</html>
```

Resize me!

Zoom In Zoom Out

Python - Syntax - W3Schools

PYTHON

Up next Python - Variable

CONTINUE

CHANGE

Python Variable Names 02:36

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```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>

<p id="text" style="font-size:16px;">Resize me!</p>
<button onclick="resize(2)">Zoom In</button>
<button onclick="resize(-2)">Zoom Out</button>

<script>
let size = 16;
function resize(amt) {
  size += amt;
  document.getElementById("text").style.fontSize = size +
"px";
}
</script>

</body>
</html>
```

Resize me!

Zoom In Zoom Out

Python - Syntax - W3Schools...

Python Variable Names 02:36 Up next Python - Variable CONTINUE CHANGE

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```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>

<p id="text" style="font-size:16px;">Resize me!</p>
<button onclick="resize(2)">Zoom In</button>
<button onclick="resize(-2)">Zoom Out</button>

<script>
let size = 16;
function resize(amt) {
  size += amt;
  document.getElementById("text").style.fontSize = size +
"px";
}
</script>

</body>
</html>
```

Resize me!

Zoom In Zoom Out

Python - Syntax - W3Schools...

Python Variable Names 02:36 Up next Python - Variable CONTINUE CHANGE

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REMOVE ADS

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10. Take a name from an input box and display a personalized "Welcome" message.

```
function showWelcome() {
  let name = document.getElementById("name").value;
  document.getElementById("message").innerText = "Welcome, " + name + "!";
}
```

The screenshot shows a web-based code editor interface. On the left, there is a code editor window with the following HTML and JavaScript code:

```

<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>

<input id="userName" placeholder="Enter Name">
<button onclick="greet()>Greet</button>
<p id="msg"></p>

<script>
function greet() {
    let n = document.getElementById("userName").value;
    document.getElementById("msg").innerText = "Welcome, " + n + "!";
}
</script>

</body>
</html>

```

On the right, there is a preview window showing the result of running the script. It contains a text input field with the value "vamshi" and a button labeled "Greet". Below the button, the text "Welcome, vamshi!" is displayed.

At the top right of the editor, there is a green button labeled "Get your own website". Below the preview window, there is a sidebar with a video thumbnail for "Python - Syntax - W3Schools...", a small advertisement for Cathay Pacific, and a "REMOVE ADS" link.

11. Write a script that converts any text entered by the user into uppercase letters.

```

function convertToUpper() {
let text = document.getElementById("myInput").value;
document.getElementById("output").innerText = text.toUpperCase();
}

```

The screenshot shows a web-based code editor interface. On the left, there is a code editor window with the following HTML and JavaScript code:

```

<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>

<input id="txtInput" oninput="this.value = this.value.toUpperCase()" placeholder="Type here...">

</body>
</html>

```

On the right, there is a preview window showing the result of running the script. It contains a text input field with the value "HAPPY" and a preview of a Cathay Pacific advertisement.

At the top right of the editor, there is a green button labeled "Get your own website". Below the preview window, there is a sidebar with a video thumbnail for "Python - Syntax - W3Schools...", a small advertisement for Cathay Pacific, and a "REMOVE ADS" link.

12. How do you calculate and display the square of a user-provided number?

```

function calculateSquare() {
let num = Number(document.getElementById("number").value);
document.getElementById("result").innerText = "Square: " + (num * num);
}

```

```

<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>

<input id="sqInput" type="number">
<button onclick="sq()">Square</button>
<p id="sqRes"></p>

<script>
function sq() {
    let n = document.getElementById("sqInput").value;
    document.getElementById("sqRes").innerText = n * n;
}
</script>

</body>
</html>

```

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16 Square
256

Python - Syntax - W3Schools...

Python Variable Names 02:36 Up next Python - Variable CONTINUE CHANGE

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13. How can you automatically change the page theme (light/dark) based on the time of day?

```

function changeBackground() {
let hour = new Date().getHours();
if (hour < 12) {
document.body.style.backgroundColor = "#f5f5f5"; // Light for AM
} else {
document.body.style.backgroundColor = "#333"; // Dark for PM
document.body.style.color = "white";
}
}

```

```

<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>

<script>
window.onload = function() {
    let hour = new Date().getHours();
    document.body.style.backgroundColor = (hour < 12) ?
"lightblue" : "darkgray";
}
</script>

</body>
</html>

```

Result Size: 492 x 530 Get your own website

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Python Variable Names 02:36 Up next Python - Variable CONTINUE CHANGE

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3 09:48 ENG IN 11-02-2026

14. Build a simple counter with separate buttons for incrementing and decrementing the value.

```
let count = 0;
function increment() {
  count++;
  document.getElementById("counter").innerText = count;
}
function decrement() {
  count--;
  document.getElementById("counter").innerText = count;
}
```

The screenshot shows a web browser window. On the left, there is a code editor with the following HTML and JavaScript code:

```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>
<h2 id="count">0</h2>
<button onclick="change(1)">+</button>
<button onclick="change(-1)">-</button>

<script>
let c = 0;
function change(v) {
  c += v;
  document.getElementById("count").innerText = c;
}
</script>
</body>
</html>
```

In the center panel, the number '9' is displayed above two buttons: '+' and '-'. On the right side of the browser window, there is an advertisement for a Python course. It includes a thumbnail image of a person, the title 'Python - Syntax', and buttons for 'CONTINUE' and 'CHANGE'.

15. Create a calculator that can perform both addition and subtraction.

```
function add() {
  let a = Number(document.getElementById("num1").value);
  let b = Number(document.getElementById("num2").value);
  document.getElementById("result").innerText = "Result: " + (a + b);
}

function subtract() {
  let a = Number(document.getElementById("num1").value);
  let b = Number(document.getElementById("num2").value);
  document.getElementById("result").innerText = "Result: " + (a - b);
}
```

```

<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>

<input id="a" type="number"> <input id="b" type="number">
<button onclick="calc('+')"+>+</button>
<button onclick="calc('-')"->-</button>
<p id="out"></p>

<script>
function calc(op) {
  let n1 = Number(document.getElementById('a').value);
  let n2 = Number(document.getElementById('b').value);
  document.getElementById('out').innerText = (op === '+')
? n1 + n2 : n1 - n2;
}
</script>

</body>
</html>

```

Result Size: 492 x 530 Get your own website

3 8 + -

11

Python - Syntax - W3Schools

REMOVE ADS

Activate Windows
Go to Settings to activate Windows.

```

<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>

<input id="a" type="number"> <input id="b" type="number">
<button onclick="calc('+')"+>+</button>
<button onclick="calc('-')"->-</button>
<p id="out"></p>

<script>
function calc(op) {
  let n1 = Number(document.getElementById('a').value);
  let n2 = Number(document.getElementById('b').value);
  document.getElementById('out').innerText = (op === '+')
? n1 + n2 : n1 - n2;
}
</script>

</body>
</html>

```

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3 8 + -

-5

Python - Syntax - W3Schools

REMOVE ADS

Activate Windows
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16. Use a loop to display items from an array (e.g., a list of fruits) as an HTML list.

```

function displayFruits() {
  let fruits = ["Apple", "Banana", "Mango"];
  let list = document.getElementById("list");
  list.innerHTML = "";
  for (let i = 0; i < fruits.length; i++) {
    list.innerHTML += "<li>" + fruits[i] + "</li>";
  }
}

```

Run >

Result Size: 492 x 530

Get your own website

```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>

<ul id="fruitList"></ul>
<script>
let fruits = ["Apple", "Banana", "Mango"];
let list = document.getElementById("fruitList");
fruits.forEach(f => {
  let li = document.createElement("li");
  li.innerText = f;
  list.appendChild(li);
});
</script>

</body>
</html>
```

• Apple
• Banana
• Mango

Python - Syntax - W3Schools...

W3Schools

PYTHON

Up next

CONTINUE

Python Variable Names 02:36

Python - Variable

CHANGE

REMOVE ADS

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