

Javascript

The HTML code you've provided is a simple example of how JavaScript can be used to change the style of an HTML element when a button is clicked. Let me break down the code for you:

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

<html>

<body>

<h2>What Can JavaScript Do?</h2>

<p id="demo">JavaScript can change the style of an HTML element.</p>

<button type="button"
onclick="document.getElementById('demo').style.fontSize='35px'">Click
Me!</button>

</body>

</html>
```
```

1. `<!DOCTYPE html>`: This is the document type declaration, specifying that the document is an HTML5 document.

2. `<html>`: The opening tag for the HTML document.

3. `<body>`: The opening tag for the body of the HTML document, where the visible content is placed.

4. `<h2>`: This is an HTML heading level 2 element, which displays text as a subheading.

5. `<p id="demo">`: This is a paragraph element with the `id` attribute set to "demo." This ID is used to uniquely identify this paragraph in the document.

6. Inside the paragraph, you have some text that says "JavaScript can change the style of an HTML element."

7. `<button>`: This is a button element. When clicked, it will trigger a JavaScript function to change the style of the paragraph above.

8. `onclick="document.getElementById('demo').style.fontSize='35px'"`: This is an event handler attached to the button. It specifies that when the button is clicked (`onclick` event), JavaScript should execute the code enclosed in double quotes.

- `document.getElementById('demo')`: This part of the code selects the HTML element with the ID "demo," which is the paragraph element you want to modify.

- `.style.fontSize='35px'`: This part of the code changes the style of the selected element. It sets the `fontSize` property of the element's style to '35px', which makes the text within the paragraph larger.

So, when you load this HTML page and click the "Click Me!" button, the JavaScript code will execute, and it will change the font size of the paragraph with the ID "demo" to 35 pixels, making the text larger. This is just a basic example of how JavaScript can be used to interact with and manipulate HTML elements on a web page.

Font size changing

```
<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

  <meta name="viewport" content="width=device-width, initial-scale=1.0">

  <title>Document</title>

</head>

<body>

  <p><h6>CHANGING FONT STYLES</h6></p><br>

  <p id="font">CHANGR THE SIZE OF TIS SENTECNCE</p>

  <button type="button" onclick="document.getElementById('font').style.color='red'">click me!</button>

</body>

</html>
```

Color changing

```
<!DOCTYPE html>

<html lang="en">

<head>

  <meta name="viewport" content="width=device-width, initial-scale=1.0">

  <title>Document</title>

</head>

<body>

  <p><h6>CHANGING FONT STYLES</h6></p><br>

  <p id="font">CHANGE THE SIZE OF THIS SENTENCE</p>

  <button type="button" value="red"
onclick="document.getElementById('font').style.color='red'">click me!</button>

  <button type="button" value="blue"
onclick="document.getElementById('font').style.color='blue'">click me!</button>

</body>

</html>
```

Functions in java script

```
<!DOCTYPE html>

<html>

<head>

<script>

function myFunction() {

    document.getElementById("demo").style.color = "red";

}

</script>

</head>

<body>

<h2>Demo JavaScript in Head</h2>

<p id="demo">A Paragraph.</p>

<button type="button" onclick="myFunction()">Try it</button>

</body>

</html>
```

```
<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

  <meta name="viewport" content="width=device-width, initial-scale=1.0">

  <title>Document</title>


  <script>

    function first(){

      document.getElementById('first1').innerHTML="WEBSYSTEMS."

    }

  </script>
</head>

<body>

  <P id="first1"> chage the paragraph to websystem</P><br>

  <button type="button" value="change" onclick="first()">change text</button>

</body>

</html>
```

OUTPUT

```
document.write()

window.alert()

console.log()

when u creating a variable,use VAR

<p id="demo"></p>

<script>

var x;

x = 5;

document.getElementById("demo").innerHTML = x * 10;

</script>
```

```
<script>
let x, y;

x = 5 + 6;

y = x * 10;

document.getElementById("demo").innerHTML = y;

</script>
```

Why Functions?

- With functions you can reuse code
- You can write code that can be used many times.
- You can use the same code with different arguments, to produce different results.

Validation

```
<html lang="en">

<head>

<title>Document</title>

</head>

<body>

<form>

<label for="username">Username:</label>

<input type="text" id="un" placeholder="Enter the username">

<label for="invalid" id="invalid" style="visibility: hidden;">Invalid input</label><br>

<input type="button" value="submit" onclick="check()">

</form>

</body>

</html>
```

```
<script>

function check(){

var input=document.getElementById('un').value

var pattern=/abc/

if(input.match(pattern)){

alert("correct")

}

else{

document.getElementById('un').style.border="solid red 2px"

document.getElementById('invalid').style.visibility="visible"

document.getElementById('invalid').style.color="red"

}

}

</script>
```

It should match abc only

var pattern = /^[a-zA-Z0-9_-]{6,20}\$/

^ and \$ anchor the pattern to the start and end of the string, respectively.

[a-zA-Z0-9_-] specifies the allowed characters: letters (both uppercase and lowercase), numbers, underscores, and hyphens.

{6,20} defines the minimum and maximum length of the username, between 6 and 20 characters.

```
<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

  <meta name="viewport" content="width=device-width, initial-scale=1.0">

  <title>Login Form</title>

</head>

<body>

  <h1>Checking Username and Password</h1>


  <label for="uname">Username</label>

  <input type="text" id="uname">

  <span class="error-message" id="uname-error" style="visibility: hidden;">Invalid
username</span>

  <br><br>


  <label for="pwd">Password</label>

  <input type="password" id="pwd">

  <span class="error-message" id="pwd-error" style="visibility: hidden;">Invalid
password</span>

  <br><br>


  <button onclick="check()">Submit</button>
```



```

<script>
function check() {
    var usernameInput = document.getElementById('uname').value;
    var usernamePattern = /^[a-zA-Z0-9]{5,20}$/;

    var passwordInput = document.getElementById('pwd').value;
    var passwordPattern = /^[a-zA-Z0-9]{6,10}$/;

    if (usernameInput.match(usernamePattern)) {
        if (passwordInput.match(passwordPattern)) {
            alert("Username and password are correct."); // Fixed the typo here
        } else {
            document.getElementById('pwd').style.border = "solid 2px red";
            document.getElementById('uname-error').style.visibility = 'hidden';
            document.getElementById('pwd-error').style.visibility = 'visible'; // Show password
error
        }
    } else {
        document.getElementById('uname').style.border = "solid 2px red";
        document.getElementById('uname-error').style.visibility = 'visible';
        document.getElementById('pwd-error').style.visibility = 'hidden'; // Show username
error
    }
}
}

```

```

</script>

```

```

</body>

```

```

</html>

```

```

/^[0][7][0,1,2,4,5,7,8][0-9]{7}$/

```

The string should start with '0'.The second character should be '7'.The third character should be '0', '1', '2', '4', '5', '7', or '8'.

The remaining seven characters can be any digits from 0 to 9.

```
function nmbrcheck(){  
    var numbercheck=document.getElementById('nmbr').value;  
    var pattern3=/^[0][7][0,1,2,4,5,7,8][0-9]{7}$/  
    if(numbercheck.match(pattern3)){  
        alert("number ok")  
    }  
    else{  
        document.getElementById('nmbrcheck').style.visibility="visible"  
        document.getElementById('nmbr').style.border="2px red solid"  
    }  
}
```