



THE STATE UNIVERSITY OF ZANZIBAR

SCHOOL OF COMPUTING

DEPARTMENT OF COMPUTER SCIENCES AND INFORMATION TECHNOLOGY

COUSE TITLE: PRINCIPLE OF NETWORK AND SECURITY

COURSE CODE: CS/ INF 2216

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REGISTRATION NUMBER: BITAM/11/23/041/TZ

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INDIVIDUAL ASSIGMENT:

QN.01

```
<> QN_1.html > html > body > script
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4    <meta charset="UTF-8">
5    <title>Self-Closing Tag Validator</title>
6  </head>
7  <body>
8    <h1>Self-Closing Tag Validator</h1>
9    <input type="text" id="tag" placeholder="Enter a tag (e.g., <img src='foo.jpg' />)">
10   <button id="validate">Validate Tag</button>
11   <p id="result"></p>
12   <script>
13     const tagRegex = /^<\w+(\s+\w+="[^"]*"|\s+'[^']*')*\s*>$/;
14     const tagInput = document.getElementById("tag");
15     const validateBtn = document.getElementById("validate");
16     const result = document.getElementById("result");
17
18     validateBtn.onclick = () => {
19       const tag = tagInput.value.trim();
20       if (tagRegex.test(tag)) {
21         result.textContent = " Valid self-closing tag!";
22         result.style.color = "green";
23       } else {
24         result.textContent = " Invalid tag format!";
25         result.style.color = "red";
26       }
27     };
28   </script>
29 </body>
30 </html>
```

Price Validator

Invalid price format!

Price Validator

Valid price format!

QN.02

```
<> QN_2.html > html
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4    <meta charset="UTF-8">
5    <title>Price Validator</title>
6  </head>
7  <body>
8    <h1>Price Validator</h1>
9    <input type="text" id="price" placeholder="Enter price">
10   <button id="validate">Validate Price</button>
11   <p id="result"></p>
12   <script>
13     const priceRegex = /^\$d*(\.\d{2})?$/;
14     const priceInput = document.getElementById("price");
15     const validateBtn = document.getElementById("validate");
16     const result = document.getElementById("result");
17
18     validateBtn.onclick = () => {
19       const price = priceInput.value.trim();
20       if (priceRegex.test(price)) {
21         result.textContent = "Valid price format!";
22         result.style.color = "green";
23       } else {
24         result.textContent = "Invalid price format!";
25         result.style.color = "red";
26       }
27     };
28   </script>
29 </body>
30 </html>
```

Self-Closing Tag Validator

Validate Tag

Valid self-closing tag!

Self-Closing Tag Validator

Validate Tag

Invalid tag format!

QN.03

```
Q3_03.html > html > body > script
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <title>Whitaker's Desserts</title>
6 </head>
7 <body>
8   <h1>Whitaker's Desserts</h1>
9   <h2 id="cookie-header">Whitaker's Cookie Jar:</h2>
10  <ul id="cookie-jar">
11    <li class="cookie">Chocolate Chip</li>
12    <li class="cookie">Oatmeal Raisin</li>
13    <li class="cookie">Macaroon</li>
14  </ul>
15  <p id="cookie-count"></p>
16  <h2>Whitaker's Pie Cupboard:</h2>
17  <ul id="pie-cupboard"></ul>
18  <button id="moar-pie">Moar Pie!</button>
19  <script>
20    document.addEventListener("DOMContentLoaded", () => {
21      document.getElementById("cookie-header").style.color = "#f7f16d";
22      function updateCookieCount() {
23        const cookies = document.querySelectorAll(".cookie").length;
24        document.getElementById("cookie-count").textContent = `${cookies}! There are ${cookies} cookies in the jar!`;
25      }
26      updateCookieCount();
27      setInterval(() => {
28        const cookieJar = document.getElementById("cookie-jar");
29        if (cookieJar.children.length > 0) {
30          cookieJar.removeChild(cookieJar.lastElementChild);
        }
      }, 1000);
    });
  </script>
</body>
</html>
```

1. Before anything has been added

My super nifty to-do list

2. After 5 items added and none removed

My super nifty to-do list

- sleep
- go to the beach
- buy cookies
- eat cookies
- go camping

3. After remove of item "go to the beach"

My super nifty to-do list

- sleep
- buy cookies
- eat cookies
- go camping

4. After remove of item "buy cookies"

My super nifty to-do list

- sleep
- eat cookies
- go camping

QN.04

```
<> QN_4.html > html > body > script > updateColors
2  <html lang="en">
7  <body>
14  </div>
15  <script>
16      const list = document.getElementById("list");
17      const input = document.getElementById("item");
18      const addBtn = document.getElementById("add");
19      const removeBtn = document.getElementById("remove");
20      function updateColors() {
21          const items = list.getElementsByTagName("li");
22          for (let i = 0; i < items.length; i++) {
23              items[i].style.backgroundColor = i % 2 === 0 ? "white" : "yellow";
24          }
25      }
26      addBtn.onclick = () => {
27          const value = input.value.trim();
28          if (value) {
29              const li = document.createElement("li");
30              li.textContent = value;
31              list.appendChild(li);
32              updateColors();
33          }
34          input.value = "";
35      };
36      removeBtn.onclick = () => {
37          const value = input.value.trim().toLowerCase();
38          if (value) {
39              const items = list.getElementsByTagName("li");
40              for (let i = 0; i < items.length; i++) {
41                  if (items[i].textContent.toLowerCase() === value) {
```

Whitaker's Desserts

Whitaker's Cookie Jar:

Chocolate Chip
Oatmeal Raisin
Macaroon

3! There are 3 cookie(s) in the cookie jar!

Whitaker's Pie Cupboard:

Moar Pie!

Whitaker's Desserts

Whitaker's Cookie Jar:

Chocolate Chip
Oatmeal Raisin

2! There are 2 cookie(s) in the cookie jar!

Whitaker's Pie Cupboard:

Moar Pie!

Whitaker's Desserts

Whitaker's Cookie Jar:

Chocolate Chip

1! There are 1 cookie(s) in the cookie jar!

Whitaker's Pie Cupboard:

Moar Pie!

Whitaker's Desserts

Whitaker's Cookie Jar:

0! There are 0 cookie(s) in the cookie jar!

Whitaker's Pie Cupboard:

Moar Pie!