



THE STATE UNIVERSITY OF ZANZIBAR
SCHOOL OF COMPUTING COMMUNICATION AND MEDIA STUDIES
DEPARTMENT OF COMPUTER SCIENCES AND INFORMATION
TECHNOLOGY
TUNGUU CAMPUS

COURSE CODE: INF 2215

COURSE TITLE:WEB TECHNOLOGIES

NAME: JOHN SAGAWALA KOMBA

REGISTRATION NO:BITAM/9/21/018/TZ

QN 1

```
<!DOCTYPE html>
<html>
  <head>
    <title>Price Matcher</title>
  </head>
  <body>
    <h1>PRICE MATCHER</h1>
    <input type="text" id="price-input" placeholder="Enter a price...">
    <button onclick="matchPrice()">Match</button>
    <p id="result"></p>

    <script>
      function matchPrice() {
        const priceInput = document.getElementById('price-input');
        const pricePattern = /^\$[d+(,d{3})*(\.d{2})?$/;
```

```

        const price = priceInput.value.trim();

        if (pricePattern.test(price)) {
            document.getElementById('result').textContent = `The price ${price}
is valid.`;
        } else {
            document.getElementById('result').textContent = `The price ${price}
is invalid.`;
        }
    }
}
</script>
</body>
</html>

```

QN 2

```

<!DOCTYPE html>
<html>
  <head>
    <meta charset="UTF-8">
    <title>Self-closing HTML tags</title>
  </head>
  <body>
    <p>Valid self-closing HTML tags:</p>
    <ul id="valid-tags"></ul>

    <p>Invalid self-closing HTML tags:</p>
    <ul id="invalid-tags"></ul>

    <script>
      const selfClosingTagRegExp = /<\w+\s*(\w+=".*"\s*)*\s*>/;

      const validTags = [
        '',
        '<img />',
        '<a href="foo.html" id="stuff" />'
      ];

      const invalidTags = [
        '</>',
        '<img src= />'
      ];
    </script>
  </body>
</html>

```

```

validTags.forEach(tag => {
  if (selfClosingTagRegExp.test(tag)) {
    const li = document.createElement('li');
    li.textContent = `${tag} is a valid self-closing HTML tag`;
    document.getElementById('valid-tags').appendChild(li);
  } else {
    const li = document.createElement('li');
    li.textContent = `${tag} is not a valid self-closing HTML tag`;
    document.getElementById('invalid-tags').appendChild(li);
  }
});

invalidTags.forEach(tag => {
  if (selfClosingTagRegExp.test(tag)) {
    const li = document.createElement('li');
    li.textContent = `${tag} is a valid self-closing HTML tag`;
    document.getElementById('valid-tags').appendChild(li);
  } else {
    const li = document.createElement('li');
    li.textContent = `${tag} is not a valid self-closing HTML tag`;
    document.getElementById('invalid-tags').appendChild(li);
  }
});
</script>
</body>
</html>

```

QN 3

```

<!DOCTYPE html>
<html>
  <head>
    <meta charset="UTF-8">
    <title>To-Do List</title>
    <style>

      #list li:nth-child(even) {
        background-color: yellow;
      }
      #list li:nth-child(odd) {
        background-color: white;
      }
    </style>
  </head>

```

```

<body>
  <h1>My super nifty to-do list</h1>
  <ul id="list"></ul>
  <div>
    <input type="text" id="item" />
    <button id="add">add</button>
    <button id="remove">remove</button>
  </div>

  <script>

    let items = [];

    const itemInput = document.getElementById('item');
    const addButton = document.getElementById('add');
    const removeButton = document.getElementById('remove');

    addButton.addEventListener('click', () => {

      const itemText = itemInput.value.trim();
      itemInput.value = '';

      const itemWords = itemText.split(' ');
      itemWords.forEach(word => {
        const li = document.createElement('li');
        li.textContent = word;
        items.push(word);
        document.getElementById('list').appendChild(li);
      });

      updateBackgroundColors();
    });

    removeButton.addEventListener('click', () => {

      const itemText = itemInput.value.trim().toLowerCase();
      itemInput.value = '';

      const index = items.findIndex(item => item.toLowerCase() ===
itemText);

      if (index !== -1) {

```

```

        items.splice(index, 1);
        const liToRemove = document.querySelector(`#list li:nth-
child(${index + 1})`);
        liToRemove.parentNode.removeChild(liToRemove);

        updateBackgroundColors();
    }
});

function updateBackgroundColors() {
    const lis = document.querySelectorAll('#list li');
    lis.forEach((li, index) => {
        if (index % 2 === 0) {
            li.style.backgroundColor = 'white';
        } else {
            li.style.backgroundColor = 'yellow';
        }
    });
}
</script>
</body>
</html>

```

QN 4

```

<!DOCTYPE html>
<html lang="en">
<head>
<script src="sesame-street.js" type="text/javascript"></script>
</head>
<body>
<h1>Whitaker's Desserts</h1>
<h2 id="cookie-header">Whitaker's Cookie Jar:</h2>
<ul id="cookie-jar">
    <li class="cookie">Chocolate Chip</li>
    <li class="cookie">Oatmeal raisin</li>
    <li class="cookie">Macaroon</li>
</ul>
<p id="cookie-count"></p>

```

```
<h2>Whitaker's Pie Cupboard:</h2>
<ul id="pie-cupboard">
</ul>
<button id="moar-pie">Moar Pie!</button>

<script type="text/javascript">

  document.getElementById("cookie-header").style.color = "#f7f16d";

  const cookies = document.querySelectorAll("#cookie-jar .cookie");
  const cookieCount = cookies.length;
  document.getElementById("cookie-count").textContent = `${cookieCount}! There
are ${cookieCount} cookie(s) in the cookie jar!`;

  setInterval(function() {
    const cookies = document.querySelectorAll("#cookie-jar .cookie");
    if (cookies.length > 0) {
      const lastCookie = cookies[cookies.length - 1];
      lastCookie.remove();
      const cookieCount = cookies.length;
      document.getElementById("cookie-count").textContent = `${cookieCount}!
There are ${cookieCount} cookie(s) in the cookie jar!`;
    }
  }, 30000);
</script>
</body>
</html>
```