

**Name:** Vinayak Kumar Singh

**Register No:** 23MCA1030

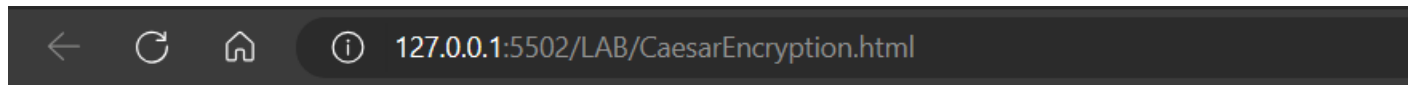
1. Write a JavaScript program to find the cipher text of a given plain text using ceaser cipher.

```
<!DOCTYPE html>
<html>
<head>
  <title>Encryption</title>
</head>
<style>
</style>
<h1>Caesar Cipher Encryption</h1>
<b>Name:</b> Vinayak Kumar Singh
<br><br>
<b>Register No:</b> 23MCA1030
<br><br>
<label for="plaintext">Please Enter Input:</label>
<input type="text" id="plaintext">
<br><br>
<label for="shift">Please Enter Shift Value:</label>
<input type="number" id="shift" min="1" max="25" value="3">
<button onclick="encryptmessage()">Encrypt Message</button>
<h2>Encrypted Message is :</h2>
<p id="encryptedText"></p>

<script>
  function encryptmessage() {
    var plaintext = document.getElementById("plaintext").value;
    var shift = parseInt(document.getElementById("shift").value);
    var encryptedText = "";
    for (var i = 0; i < plaintext.length; i++) {
      var charCode = plaintext.charCodeAt(i);
      if (charCode >= 65 && charCode <= 90) {
        encryptedText = encryptedText + String.fromCharCode(((charCode - 65 +
shift) % 26) + 65);
      }
      else if (charCode >= 97 && charCode <= 122) {
        encryptedText = encryptedText + String.fromCharCode(((charCode - 97 +
shift) % 26) + 97);
      }
      else {
        encryptedText = encryptedText + plaintext[i];
      }
    }
    document.getElementById("encryptedText").textContent = encryptedText;
  }
}
```

```
</script>  
</body>  
</html>
```

## Output:



# Caesar Cipher Encryption

**Name:** Vinayak Kumar Singh

**Register No:** 23MCA1030

Please Enter Input:

Please Enter Shift Value:

**Encrypted Message is :**

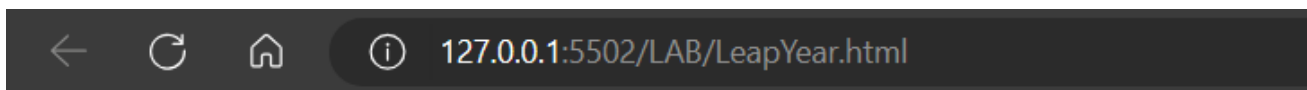
khoor

2. Write a JavaScript program to check if the given year is leap year or not.

```
<!DOCTYPE html>
<html>
<head>
  <title>Checker</title>
</head>
<body>
  <h1>Leap Year Checker</h1>
  <b>Name:</b> Vinayak Kumar Singh
  <br><br>
  <b>Register No:</b> 23MCA1030
  <br><br>
  <label for="year">Enter Year:</label>
  <input type="number" id="year">
  <button onclick="checkLeapYearChecker()">Check</button>
  <p id="result"></p>

  <script>
    function checkLeapYearChecker() {
      var year = parseInt(document.getElementById("year").value);
      var result = (year % 4 === 0 && (year % 100 !== 0 || year % 400 === 0)) ? year +
" is a leap year!" : year + " is not a leap year.";
      document.getElementById("result").textContent = result;
    }
  </script>
</body>
</html>
```

## Output:



# Leap Year Checker

**Name:** Vinayak Kumar Singh

**Register No:** 23MCA1030

Enter Year:

2024 is a leap year!

3. Write a Javascript program that has an array of reviews good/bad. Display the count of good and bad reviews.

```
<!DOCTYPE html>
<html>
<head>
  <title>Counter</title>
</head>
<body>
  <h1>Review Counter</h1>
  <b>Name:</b> Vinayak Kumar Singh
  <br><br>
  <b>Register No:</b> 23MCA1030
  <br><br>
  <label for="myinputreview">Enter your Input Review:</label>
  <input type="text" id="myinputreview">
  <button onclick="addReview()" type="button">Check Review</button>
  <button onclick="reset()">Reset</button>
  <div>
    <h2>Review Counts:</h2>
    <p>Good Reviews: <span id="goodCount">0</span></p>
    <p>Bad Reviews: <span id="badCount">0</span></p>
  </div>
  <p id="error" style="color: red;"></p>

  <script>
    var goodCount = 0;
    var badCount = 0;
    function addReview() {
      var myinputreview = document.getElementById("myinputreview").value;
      var reviews = myinputreview.split(",");
      for (var i = 0; i < reviews.length; i++) {
        reviews[i] = reviews[i].toLowerCase();

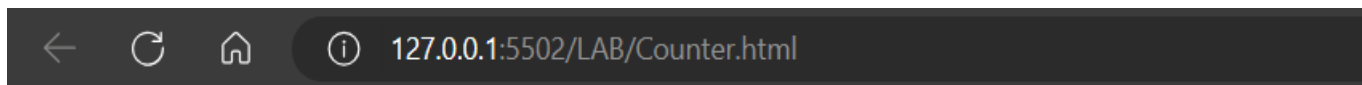
        if (reviews[i] === "good") {
          goodCount++;
        } else if (reviews[i] === "bad") {
          badCount++;
        } else {
          document.getElementById("error").textContent = "Invalid input. Please
enter 'good' or 'bad' separated by comma.";
          return;
        }
      }
      document.getElementById("goodCount").textContent = goodCount;
      document.getElementById("badCount").textContent = badCount;
    }
    function reset() {
      goodCount = 0;
      badCount = 0;
    }
  </script>
</body>
</html>
```

```

        document.getElementById("goodCount").textContent = goodCount;
        document.getElementById("badCount").textContent = badCount;
        document.getElementById("error").textContent = "";
        document.getElementById("myinputreview").value = "";
    }
</script>
</body>
</html>

```

## Output :



# Review Counter

**Name:** Vinayak Kumar Singh

**Register No:** 23MCA1030

Enter your Input Review:

## Review Counts:

Good Reviews: 3

Bad Reviews: 1

## 4. Write a Javascript program to play tic-tac-toe

```

<!DOCTYPE html>
<html>
<head>
    <title>Tic Tac Toe</title>
    <style>
        body {
            background-image: linear-gradient(120deg, #89f7fe 0%, #66a6ff 100%);
            background-size: cover;
            font-family: Arial, sans-serif;
            text-align: center;
            display: flex;
            justify-content: center;

```

```

        align-items: center;
        height: 100vh;
        margin: 0;
    }

    table {
        margin: 0 auto;
        border-collapse: collapse;
    }

    td {
        width: 100px;
        height: 100px;
        font-size: 80px;
        border: 2px solid #000000;
        cursor: pointer;
        background-color: white;
        text-align: center;
        vertical-align: middle;
    }

    button {
        margin-top: 20px;
        padding: 10px 20px;
        font-size: 18px;
        cursor: pointer;
    }

    .center-content {
        display: flex;
        flex-direction: column;
        align-items: center;
        white-space: nowrap;
    }
</style>
</head>

<body>
    <div class="center-content">
        <h1>Tic Tac Toe</h1>
        <div class="myname">
            <b>Name:</b> Vinayak Kumar Singh
            <br>
            <b>Register No:</b> 23MCA1030
        <br><br>
        <table>
            <tr>
                <td id="cell1"></td>
                <td id="cell2"></td>
                <td id="cell3"></td>
            </tr>
        </table>
    </div>

```

```

    </tr>
    <tr>
        <td id="cell14"></td>
        <td id="cell15"></td>
        <td id="cell16"></td>
    </tr>
    <tr>
        <td id="cell17"></td>
        <td id="cell18"></td>
        <td id="cell19"></td>
    </tr>
</table>
<button onclick="reset()">Reset</button>
</div>

<script>
    var cells = [
        document.getElementById("cell1"),
        document.getElementById("cell2"),
        document.getElementById("cell3"),
        document.getElementById("cell4"),
        document.getElementById("cell5"),
        document.getElementById("cell6"),
        document.getElementById("cell7"),
        document.getElementById("cell8"),
        document.getElementById("cell9")
    ];
    var turn = "X";

    function reset() {
        for (var i = 0; i < cells.length; i++) {
            cells[i].textContent = "";
            cells[i].style.backgroundColor = "white";
        }

        turn = "X";
    }

    function handleClick(event) {
        var cell = event.target;

        if (cell.textContent !== "") {
            return;
        }

        cell.textContent = turn;

        if (checkWinner()) {
            setTimeout(function () {
                alert(turn + " is a winner");
            }, 1000);
        }
    }

```

```

        reset();
    }, 100);
} else if (isFull()) {
    setTimeout(function () {
        alert("It's a tie!");
        reset();
    }, 100);
} else {
    turn = (turn === "X") ? "O" : "X";
}
}

function checkWinner() {
    for (var i = 0; i < 3; i++) {
        if (cells[i * 3].textContent === cells[i * 3 + 1].textContent && cells[i * 3
+ 1].textContent === cells[i * 3 + 2].textContent && cells[i * 3].textContent !== "") {
            cells[i * 3].style.backgroundColor = "#00ff00";
            cells[i * 3 + 1].style.backgroundColor = "#00ff00";
            cells[i * 3 + 2].style.backgroundColor = "#00ff00";
            return true;
        }
    }

    for (var i = 0; i < 3; i++) {
        if (cells[i].textContent === cells[i + 3].textContent && cells[i +
3].textContent === cells[i + 6].textContent && cells[i].textContent !== "") {
            cells[i].style.backgroundColor = "#00ff00";
            cells[i + 3].style.backgroundColor = "#00ff00";
            cells[i + 6].style.backgroundColor = "#00ff00";
            return true;
        }
    }

    if (cells[0].textContent === cells[4].textContent && cells[4].textContent ===
cells[8].textContent && cells[0].textContent !== "") {
        cells[0].style.backgroundColor = "#00ff00";
        cells[4].style.backgroundColor = "#00ff00";
        cells[8].style.backgroundColor = "#00ff00";
        return true;
    }

    if (cells[2].textContent === cells[4].textContent && cells[4].textContent ===
cells[6].textContent && cells[2].textContent !== "") {
        cells[2].style.backgroundColor = "#00ff00";
        cells[4].style.backgroundColor = "#00ff00";
        cells[6].style.backgroundColor = "#00ff00";
        return true;
    }

    return false;
}

```



```

}

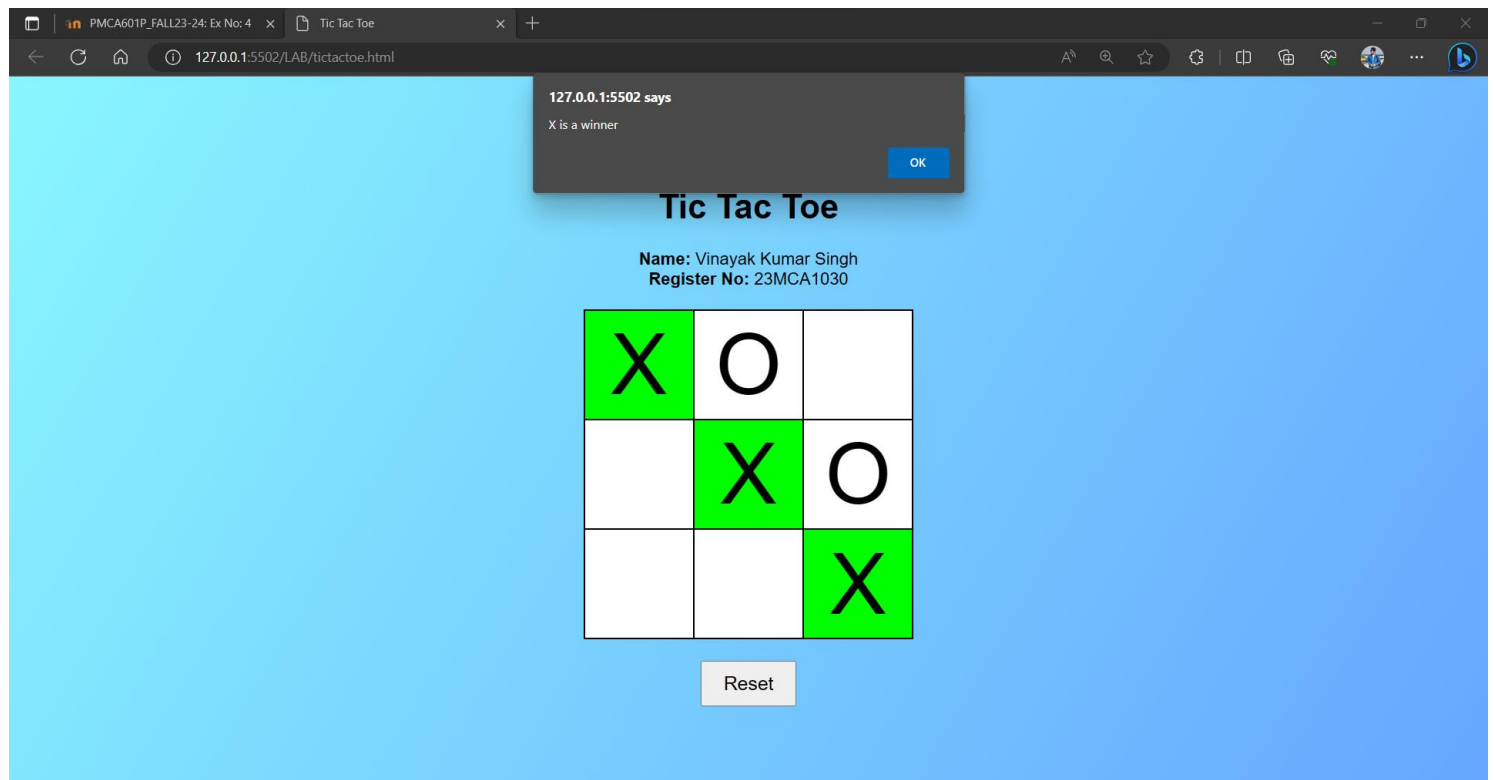
function isFull() {
    for (var i = 0; i < cells.length; i++) {
        if (cells[i].textContent === "") {
            return false;
        }
    }

    return true;
}

for (var i = 0; i < cells.length; i++) {
    cells[i].addEventListener("click", handleClick);
}
</script>
</body>
</html>

```

## Output:



**END**