# Practical – 3

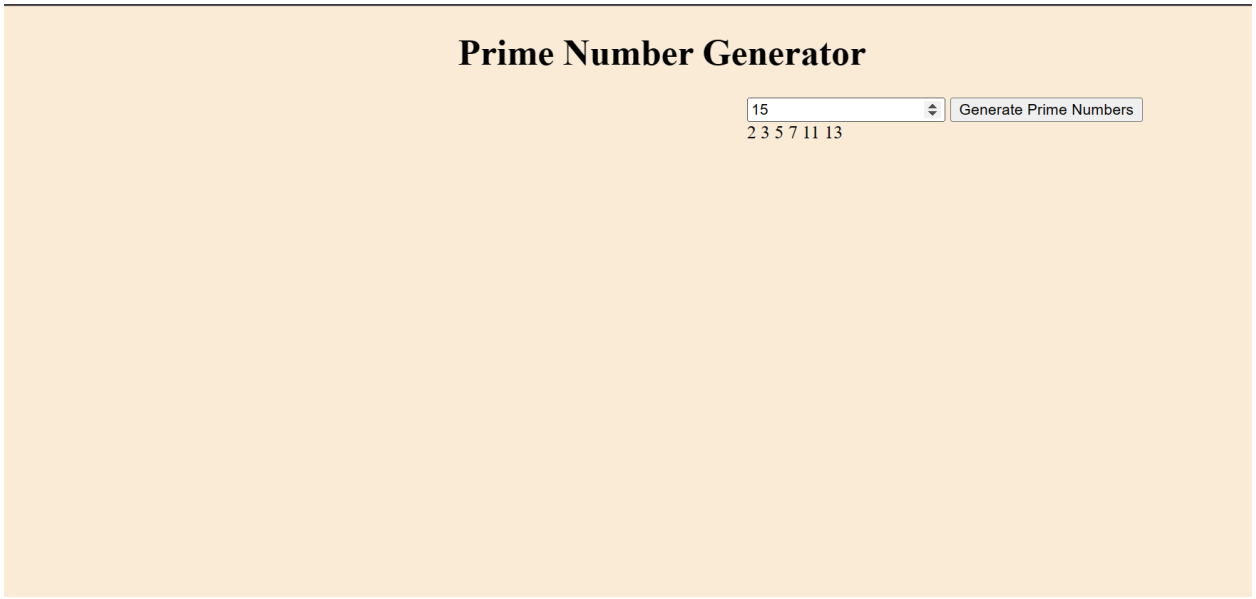
**Aim:** Generating the Prime Numbers

## Source Code:

```
<!DOCTYPE html>
<html>

<head>
    <title>Prime Number Generator</title>
    <script type="text/javascript">
        function printPrimes() {
            var input = document.getElementById("input").value;
            var primes = "";

            for (var i = 2; i <= input; i++) {
                var isPrime = true;

                for (var j = 2; j <= Math.sqrt(i); j++) {
                    if (i % j == 0) {
                        isPrime = false;
                        break;
                    }
                }

                if (isPrime) {
                    primes += i + " ";
                }
            }
            document.getElementById("primes").innerHTML = primes;
        }
    </script>
    <style>
        body {
            background-color: antiquewhite;
        }

        #div {
            position: relative;
            left: 638px;
            right: 100px;
        }

        #primes {
```

```
            position: relative;
            left: 638px;
            right: 100px;
        }
    </style>
</head>

<body>
    <h1 align="center">Prime Number Generator</h1>
    <div id="div">
        <input type="number" id="input" min="1" value="10"></input>
        <button onclick="printPrimes()">Generate Prime Numbers</button>
    </div>
    <div id="primes"></div>

</body>

</html>
```

## Output:




## Write Script to reverse the given input string

HTML :

```html
<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>String Reverser</title>

</head>


<body>
    <script src="reversestr.js"></script>
</body>
<h1 align="center">String Reverser</h1>
    <h3 align="center">Vyas Priyank Id-21IT177</h3>
    <div id="div">
        <input type="text" id="input"></input>
        <button onclick="reverseString()">Reverse String</button>
    </div>
    <div id="reversed"></div>

</html>
```

CSS:

```css
#div {
            position: relative;
            left: 638px;
            right: 100px;
        }
        #reversed {
            font-size: 1.5em;
            position: relative;
            left: 638px;
            right: 100px;
        }
        body {
            background-color: antiquewhite;
        }
```

JAVASCRIPT:

```
function reverseString() {
        var input = document.getElementById("input").value;
        var reversed = input.split("").reverse().join("");
        document.getElementById("reversed").innerHTML = reversed;
}
```

**Output:**


## Create Dynamic Multiplication Table using inputs

**HTML**

```
<!DOCTYPE html>
<html>

<head>
    <title>Multiplication Table</title>
    <script type="text/javascript">
        function generateTable() {
            var rows = document.getElementById("rows").value;
            var cols = document.getElementById("cols").value;
            var table = document.createElement("table");
            var tableBody = document.createElement("tbody");
            var row, cell, text;
```

```
            for (var i = 0; i <= rows; i++) {
                row = document.createElement("tr");

                for (var j = 0; j <= cols; j++) {
                    cell = document.createElement("td");
                    text = document.createTextNode(i * j);
                    cell.appendChild(text);
                    row.appendChild(cell);
                }
                tableBody.appendChild(row);
            }
            table.appendChild(tableBody);
            document.getElementById("table").appendChild(table);
        }
    </script>
    <style>
        #td {
            border: 2px solid black;
            padding: 5px;
        }

        /* #tab {
            border: 1px;
            color: aquamarine;
            border-style: solid dashed black;
            position: center;
            padding: 5px;
        } */

        body {
            background-color: antiquewhite;

        }
    </style>
</head>

<body>
    <h1>Multiplication Table</h1>
    <h3>Vyas Priyank(21IT177)</h3>
    <table id="tab">
        <td>
            <tr>
                <label for="rows">Number of Rows:</label>
```

```
                <input type="number" id="rows" min="1"
value="10"></input><BR><BR>
            </tr>
            <tr>
                <label for="cols">Number of Columns:</label>
                <input type="number" id="cols" min="1"
value="10"></input><BR><BR>
            </tr>
            <tr>
                <button onclick="generateTable()">Generate Table</button>
            </tr>
        </td>
    </table>
    <div id="table"></div>
</body>

</html>
```

**JAVASCRIPT**

```
function generateTable() {
            var rows = document.getElementById("rows").value;
            var cols = document.getElementById("cols").value;
            var table = document.createElement("table");
            var tableBody = document.createElement("tbody");
            var row, cell, text;

            for (var i = 0; i <= rows; i++) {
                row = document.createElement("tr");

                for (var j = 0; j <= cols; j++) {
                    cell = document.createElement("td");
                    text = document.createTextNode(i * j);
                    cell.appendChild(text);
                    row.appendChild(cell);
                }
                tableBody.appendChild(row);
            }
            table.appendChild(tableBody);
            document.getElementById("table").appendChild(table);
```

**Output:**

3.

# Multiplication Table

## Vyas Priyank (21IT177)

Number of Rows: 5

Number of Columns: 5

Generate Table

| | | | | | |
|---|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 2 | 4 | 6 | 8 | 10 |
| 0 | 3 | 6 | 9 | 12 | 15 |
| 0 | 4 | 8 | 12 | 16 | 20 |
| 0 | 5 | 10 | 15 | 20 | 25 |

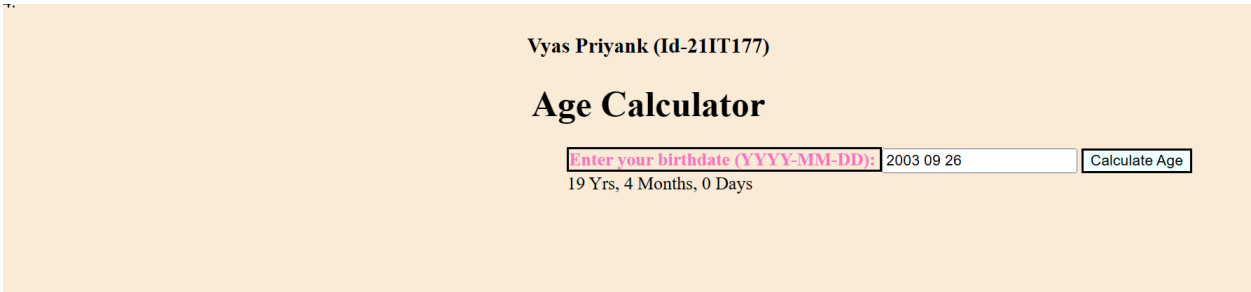
# Find the Age from input date.(Ex. 17 Yrs, 3 Months,13 Days)

## HTML

```
<!DOCTYPE html>
<html>

<head>
    <title>Age Calculator</title>
    <style>
        body {
            margin: 0;
            padding: 0;
            /* color: antiquewhite; */
            background-color: antiquewhite;
        }

        strong {
            position: center;
            color: rgb(248, 116, 191);
            border-style: groove;
            border-color: black
        }

        #button {
            color: black !important;
            background-color: azure;
        }

        #align {
            position: relative;
            left: 500px;
            right: 100px;
        }
```

```
        #age {
            position: relative;
            left: 500px;
            right: 100px;
        }
    </style>
    <script type="text/javascript">
        function calculateAge() {
            var input = document.getElementById("input").value;
            var birthdate = new Date(input);
            var today = new Date();
            var ageInMilliseconds = today - birthdate;
            var ageInSeconds = ageInMilliseconds / 1000;
            var ageInMinutes = ageInSeconds / 60;
            var ageInHours = ageInMinutes / 60;
            var ageInDays = ageInHours / 24;
            var ageInMonths = ageInDays / 30.4;
            var ageInYears = ageInMonths / 12;

            var years = Math.floor(ageInYears);
            var months = Math.floor(ageInMonths % 12);
            var days = Math.floor(ageInDays % 30.4);

            var age = years + " Yrs, " + months + " Months, " + days + " Days";
            document.getElementById("age").innerHTML = age;
        }
    </script>
</head>

<body>
    <h3 align="center">Vyas Priyank (Id-21IT177)</h3>
    <h1 align="center">Age Calculator</h1>
    <div id="align">
        <strong>
            <label for="input">Enter your birthdate (YYYY-MM-DD):</label>
        </strong>
        <input id="input" type="text" id="input"></input>
        <button id="button" onclick="calculateAge()">Calculate Age</button>
    </div>
    <div id="age"></div>
</body>

</html>
```

## Output:



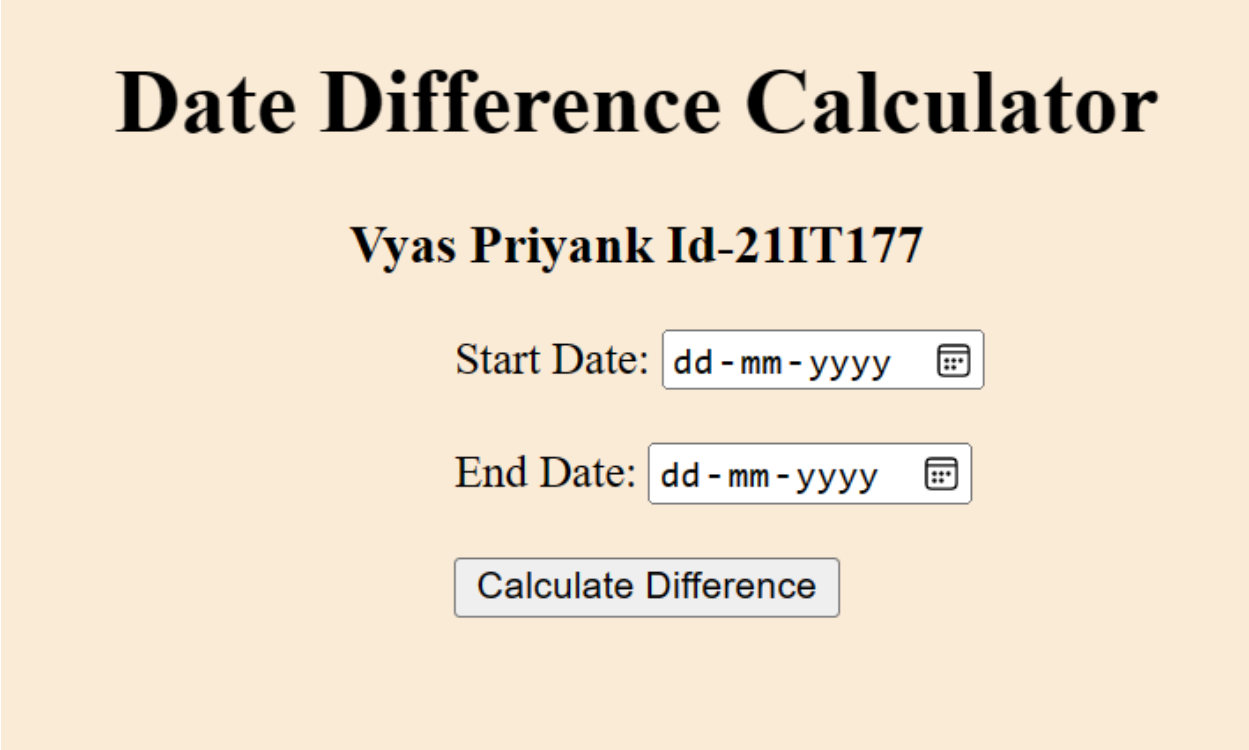

# Find the No. of Days between two given dates

### HTML

```
<!DOCTYPE html>
<html>

<head>
    <title>Date Difference Calculator</title>
    <script type="text/javascript">
        function calculateDifference() {
            var start = new Date(document.getElementById("start").value);
            var end = new Date(document.getElementById("end").value);
            var timeDiff = end - start;
            var diffDays = Math.ceil(timeDiff / (1000 * 3600 * 24));
            document.getElementById("difference").innerHTML = diffDays + " Days";
        }
    </script>
    <style>
        body {
            background-color: antiquewhite;
        }

        #div {
            position: relative;
            left: 500px;
            right: 100px;
        }
    </style>
</head>
```

```
<body>
    <h1 align="center">Date Difference Calculator</h1>
    <h3 align="center">Vyas Priyank Id-21IT177</h3>
    <div id="div">
        <label for="start">Start Date:</label>
        <input type="date" id="start"></input><br><br>
        <label for="end">End Date:</label>
        <input type="date" id="end"></input><br><br>
    </div>
    <div style="position:relative; left: 500px; right: 100px;"><button
onclick="calculateDifference()">Calculate
            Difference</button></div>
    <div style="position:relative; left: 500px; right: 100px;"
id="difference"></div>
</body>
```

**Output:**



**Conclusion:**

- **JavaScript is an advanced programming language that makes web pages more interactive and dynamic.**
- **HTML is a standard markup language that provides the primary structure of a website**
- JavaScript simply adds dynamic content to websites to make them look good.

**Course Outcome:**

- If we do well in this unit, we should be able to: Insert a **dynamic** web page.
- We Can Perform any mathematical operation in webpage using javascript.
- Here We Create calculator and temperature converter.