Project Report: Calculator Using HTML, CSS, and JavaScript

**1. Project Title**

Basic Calculator

# Objective

# The objective of this project is to create a simple, responsive countdown timer using HTML, CSS, and JavaScript. The timer allows users to input a time duration and counts down to zero, updating the display in real-time.

# Tools and Technologies Used

* (HyperText Markup Language Defines the structure of the web page.
* CSS (Cascading Style Sheets): Styles the timer layout and appearance.

- JavaScript: Provides the countdown logic and interactive functionality.

# Project Implementation

HTML:

```

<div class="countdown-container">

      <h1 class="countdown-title">We are Almost there</h1>

      <p class="countdown-subtitle">Stay tuned for something amazing!!!</p>

      <div class="countdown-grid">

            <div class="countdown-item">

                  <p id="days" class="countdown-number">00</p>

                  <hr>

                  <p class="countdown-label">days</p>

            </div>

            <div class="countdown-item">

                  <p id="hours" class="countdown-number">00</p>

                  <hr>

                  <p class="countdown-label">hours</p>

            </div>

            <div class="countdown-item">

                  <p id="mins" class="countdown-number">00</p>

                  <hr>

                  <p class="countdown-label">mins</p>

            </div>

            <div class="countdown-item">

                  <p id="secs" class="countdown-number">00</p>

                  <hr>

                  <p class="countdown-label">secs</p>

            </div>

      </div>

    </div>

```

CSS:

```

body{

      margin: 0;

      padding: 0;

}

/\* Container for the countdown section \*/

.countdown-container{

      width: 100%;

      height: 100vh;

      background: linear-gradient(to bottom left, #4fd1c5, #2b6cb0);

      display: flex;

      flex-direction: column;

      justify-content: center;

      align-items: center;

      color: white;

      text-align: center;

}

/\* Title styling \*/

.countdown-title{

      font-size: 3rem;

      margin-bottom: 1rem;

}

/\* Subtitle styling \*/

.countdown-subtitle{

      margin-bottom: 2.rem;

}

/\* Grid layout for countdown items \*/

.countdown-grid{

      display: grid;

      grid-template-columns: repeat(1, 1fr);

      gap: 2.5rem;

      margin-top: 2.5rem ;

}

/\* Responsive grid adjustments \*/

@media(min-width: 640px){

      .countdown-grid{

            grid-template-columns: repeat(2, 1fr);

            margin-top: 5rem;

      }

}

@media (min-width: 1024px){

      .countdown-grid{

            grid-template-columns: repeat(4, 1fr);

            margin-top: 5rem;

      }

}

/\* Styling for each countdown item \*/

.countdown-item{

      background: transparent;

      border: 1px solid #e2e8f0 ;

      text-align: center;

}

/\* Number styling \*/

.countdown-number{

      font-size: 3rem;

      padding: 0 2.5rem;

}

.countdown-label{

      padding: 1.25rem 2.5rem;

}

.countdown-item hr{

      margin: 0;

      border: 0;

      border-top:1px solid #e2e8f0 ;

}

```

JavaScript:

```

function updateCountdown(){

      const targetDate = new Date("2024-08-31T23:59:59");// Set your target date here

      const now = new Date();

      const timeDiff = targetDate - now;

      if(timeDiff <= 0 ){

            document.getElementById("days").textContent = "00";

            document.getElementById("hours").textContent = "00";

            document.getElementById("mins").textContent = "00";

            document.getElementById("secs").textContent = "00";

            return

      }

      const days = Math.floor(timeDiff/ (1000 \* 60 \* 60 \* 24));

      const hours = Math.floor((timeDiff % (1000 \* 60 \* 60 \* 24)) / (1000 \* 60 \* 60));

      const mins = Math.floor((timeDiff % (1000 \* 60 \* 60)) / (1000 \* 60 ));

      const secs = Math.floor((timeDiff % (1000 \* 60)) / 1000 );

      document.getElementById("days").textContent = String(days).padStart(2, "0");

      document.getElementById("hours").textContent = String(hours).padStart(2, "0");

      document.getElementById("mins").textContent = String(mins).padStart(2, "0");

      document.getElementById("secs").textContent = String(secs).padStart(2, "0");

}

setInterval(updateCountdown, 1000);

```

# Output

The result is a fully functional web-based countdown timer that displays the remaining time and updates it every second. It also provides buttons to start or reset the countdown.

# 7. Conclusion

# This project successfully demonstrates how to build a simple and practical web application using only front-end technologies. The countdown timer serves as a good learning project for beginners in web development

.

# Future Scope

* dd pause/resume button
* Support for hours, minutes, and seconds
* Sound notification when time ends

- Dark/light theme toggle