

```
<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

  <meta name="viewport" content="width=device-width, initial-scale=1.0">

  <title>Countdown Timer</title>

  <style>

    body {

      font-family: Arial, sans-serif;

      text-align: center;

    }

    .timer {

      font-size: 36px;

      margin: 20px 0;

    }

    .buttons {

      margin: 10px;

    }

  </style>

</head>

<body>

  <div class="timer" id="timer">00:00:00</div>

  <div class="buttons">

    <button onclick="startTimer()">Start</button>

    <button onclick="stopTimer()">Stop</button>

    <button onclick="resetTimer()">Reset</button>

    <button onclick="restartTimer()">Restart</button>

  </div>

  <script>

    let timerInterval;
```

```
let startTime;
```

```
let running = false;
```

```
function startTimer() {
```

```
  if (!running) {
```

```
    startTime = Date.now() - (startTime ? startTime : 0);
```

```
    timerInterval = setInterval(updateTimer, 1000);
```

```
    running = true;
```

```
  }
```

```
}
```

```
function stopTimer() {
```

```
  clearInterval(timerInterval);
```

```
  running = false;
```

```
}
```

```
function resetTimer() {
```

```
  clearInterval(timerInterval);
```

```
  document.getElementById('timer').textContent = '00:00:00';
```

```
  startTime = undefined;
```

```
  running = false;
```

```
}
```

```
function restartTimer() {
```

```
  resetTimer();
```

```
  startTimer();
```

```
}
```

```
function updateTimer() {
```

```
  const elapsedTime = Math.floor((Date.now() - startTime) / 1000);
```

```
  const hours = Math.floor(elapsedTime / 3600);
```

```
    const minutes = Math.floor((elapsedTime % 3600) / 60);

    const seconds = elapsedTime % 60;

    const formattedTime =
`$${formatTime(hours)}:${formatTime(minutes)}:${formatTime(seconds)}`;

    document.getElementById('timer').textContent = formattedTime;
  }

  function formatTime(value) {
    return value < 10 ? `0${value}` : value;
  }
</script>
</body>
</html>
```