

JavaScript: Displaying Current Date & Time with Day Name

Let's break down how JavaScript works with **dates and times**, extract specific values, and display them in a **user-friendly format**. 🚀

1📅 Getting the Current Date and Time

The Date object allows us to retrieve the current **date and time** based on the **user's local system settings**.

```
var rightNow = new Date();
console.log(rightNow); // Example output: Mon Feb 19 2024 10:30:00 GMT+0500 (Pakistan Standard Time)
```

🔗 How It Works?

- new Date() creates a Date object with the **current local time**.
 - The output format depends on the **browser and system settings**.
-

2📅 Converting the Date Object to a String

If we need to **store or display** the date as text, we can **convert it to a string**:

```
var dateString = rightNow.toString();
console.log(dateString); // Example output: "Mon Feb 19 2024 10:30:00 GMT+0500 (Pakistan Standard Time)"
```

3📅 Extracting the Day of the Week

JavaScript represents days as numbers:

 **Sunday = 0, Monday = 1, ..., Saturday = 6**

To **get the numeric day of the week**:

```
var theDay = rightNow.getDay();
console.log(theDay); // Example output: 1 (Monday)
```

4📅 Converting Day Number to Day Name

We need to **map numbers (0-6) to actual day names** using an **array**:

```
var dayNames = ["Sun", "Mon", "Tue", "Wed", "Thu", "Fri", "Sat"];
```

```
var nameOfToday = dayNames[theDay];
```

```
console.log("Today is:", nameOfToday); // Example output: "Today is: Mon"
```

5▣ Displaying Full Date with Formatted Output

We can extract more details like **date, month, year, hours, minutes, and seconds**:

```
var now = new Date();
```

```
var dayNames = ["Sun", "Mon", "Tue", "Wed", "Thu", "Fri", "Sat"];
```

```
var monthNames = ["Jan", "Feb", "Mar", "Apr", "May", "Jun", "Jul", "Aug", "Sep", "Oct", "Nov", "Dec"];
```

```
var day = dayNames[now.getDay()];
```

```
var date = now.getDate();
```

```
var month = monthNames[now.getMonth()];
```

```
var year = now.getFullYear();
```

```
var hours = now.getHours();
```

```
var minutes = now.getMinutes();
```

```
var seconds = now.getSeconds();
```

```
// Formatting the output
```

```
var formattedDate = `${day}, ${month} ${date}, ${year} - ${hours}:${minutes}:${seconds}`;
```

```
console.log("Current Date & Time:", formattedDate);
```

🔗 What This Does?

- Extracts **day, date, month, year, hours, minutes, seconds**.
- Uses arrays to convert numbers into readable **day names** and **month names**.
- Outputs a nicely formatted **date & time string**.

🔗 Full Code Example for Displaying Date & Time in an HTML Page

If you want to **display the current date & time on a webpage**, use this:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Current Date & Time</title>
</head>
<body>
  <h1 id="date-time"></h1>
```

```

<script>
function displayDateTime() {
    var now = new Date();
    var dayNames = ["Sun", "Mon", "Tue", "Wed", "Thu", "Fri", "Sat"];
    var monthNames = ["Jan", "Feb", "Mar", "Apr", "May", "Jun", "Jul", "Aug", "Sep", "Oct", "Nov", "Dec"];

    var day = dayNames[now.getDay()];
    var date = now.getDate();
    var month = monthNames[now.getMonth()];
    var year = now.getFullYear();
    var hours = now.getHours();
    var minutes = now.getMinutes();
    var seconds = now.getSeconds();

    // Ensure double digits for minutes & seconds
    minutes = minutes < 10 ? "0" + minutes : minutes;
    seconds = seconds < 10 ? "0" + seconds : seconds;

    var formattedDate = `${day}, ${month} ${date}, ${year} - ${hours}:${minutes}:${seconds}`;

    document.getElementById("date-time").innerText = formattedDate;
}

// Update the time every second
setInterval(displayDateTime, 1000);
</script>
</body>
</html>

```

✂ Key Features:

- Displays the **current date & time** dynamically.
- Updates every **second** using `setInterval()`.

✓ Summary

Task	Method
Get current date & time	<code>new Date()</code>
Convert date to string	<code>.toString()</code>
Extract day number (0-6)	<code>.getDay()</code>
Convert day number to day name	<code>dayNames[date.getDay()]</code>
Extract date, month, year	<code>.getDate(), .getMonth(), .getFullYear()</code>
Extract hours, minutes, seconds	<code>.getHours(), .getMinutes(), .getSeconds()</code>
Format time as double digits	<code>minutes < 10 ? "0" + minutes : minutes</code>