



Working with Dates in JavaScript

Creating Dates

JavaScript provides the built-in **Date** object for handling dates and times. You can create a date in several ways:

- **Current Date and Time:**

```
const now = new Date();  
// Example output: 2025-08-12T16:12:30.240Z
```

- **Specific Date from String:**

```
const dateFromString = new Date("2025-08-12T10:30:00");
```

- **Specific Date from Components (Year, Month, Day, ...):**

```
// Note: Months are 0-indexed (0=January, 11=December)  
const dateFromParts = new Date(2025, 7, 12, 10, 30); // Aug 12, 2025, 10:30 AM
```

- **From Timestamp (milliseconds since Unix Epoch):**

```
const dateFromTimestamp = new Date(1755015630000);
```

Getting Date Components

You can extract parts of a date with methods like:

- `getFullYear()`
- `getMonth()` (0-indexed)
- `getDate()` (day of the month)
- `getDay()` (day of week, 0=Sunday)
- `getHours()`, `getMinutes()`, `getSeconds()`

Example:

```
const d = new Date();  
const year = d.getFullYear();  
const month = d.getMonth() + 1; // add 1 for human-friendly month  
const day = d.getDate();
```

Formatting the Date (yyyy-mm-dd)

Simple manual formatting:

```
const date = new Date();
const yyyy = date.getFullYear();
const mm = String(date.getMonth() + 1).padStart(2, '0');
const dd = String(date.getDate()).padStart(2, '0');
const formatted = `${yyyy}-${mm}-${dd}`; // e.g., "2025-08-12"
```

Alternatively, you can use libraries like **Moment.js** or **date-fns** for easier formatting.

Important Notes

- JavaScript counts months from 0 (Jan) to 11 (Dec).
- Date objects are static; they do not auto-update.
- Date methods exist for both local time (e.g., `getHours()`) and UTC (`getUTCHours()`).

Reference Table

Function	Example	Output/Details
<code>new Date()</code>	<code>new Date()</code>	Current date & time
<code>new Date(dateString)</code>	<code>new Date("2025-08-12")</code>	Specific date (parsed string)
<code>new Date(year, month, day)</code>	<code>new Date(2025, 7, 12)</code>	12 August 2025 (month=7)
<code>date.getFullYear()</code>	<code>(new Date()).getFullYear()</code>	2025
<code>date.getMonth()</code>	<code>(new Date()).getMonth()</code>	0-11 (0=Jan)
<code>date.getDate()</code>	<code>(new Date()).getDate()</code>	1-31 (day of month)

For more details and examples, see MDN Web Docs or W3Schools. [\[1\]](#) [\[2\]](#) [\[3\]](#) [\[4\]](#) [\[5\]](#)

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1. https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Date
2. https://www.w3schools.com/js/js_dates.asp
3. https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Date/Date
4. <https://www.geeksforgeeks.org/javascript/javascript-date-objects/>
5. <https://bugfender.com/blog/javascript-date-and-time/>