

JavaScript Date function

Date Object

- The Date object is used to work with dates and times.
- Date objects are created with **new Date()** constructor

****new Date()** creates a new date object with the current date and time

4 ways of instantiating a date:

- There are **four ways** of instantiating a date:
 1. `new Date()`
 2. `new Date(milliseconds)`
 3. `new Date(dateString)`
 4. `new Date(year, month, day, hours, minutes, seconds, milliseconds)`

1.) Example for **new Date();**

```
<body>
```

```
<script>
```

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

```
document.write(d);
```

```
</script>
```

Output:

Wed Aug 26 2020 12:06:49 GMT+0530 (India Standard Time)

2.) Example for `new Date(milliseconds);`

- Using `new Date(number)`, creates a new date object as **zero time plus the number**.
- Zero time is 01 January 1970 00:00:00 UTC.(Coordinated Universal Time)
The number is specified in milliseconds.
- **One day contains 86,400,000 millisecond**

```
<body>
```

```
<p id="demo"></p>
```

```
<script>
```

```
var d = new Date(86400000);
```

```
document.getElementById("demo").innerHTML = d;
```

```
</script>
```

```
</body>
```

Output:

Fri Jan 02 1970 05:30:00 GMT+0530 (India Standard Time)

3. Example for new Date(date string)

creates a new date object from the **specified date and time**

```
<body>
```

```
<p id="demo"></p>
```

```
<script>
```

```
var d = new Date("October 13, 2014 11:13:00");
```

```
document.getElementById("demo").innerHTML = d;
```

```
</script></body>
```

Output:

Mon Oct 13 2014 11:13:00 GMT+0530 (India Standard Time)

4.) new Date(year, month, day, hours, minutes, seconds, milliseconds)

- Using new Date(**7 numbers**), creates a new date object with the **specified date and time**:
- The 7 numbers specify the year, month, day, hour, minute, second, and millisecond, in that order

```
<body>
<p id="demo"></p>
<script>
var d = new Date(99,5,24,11,33,30,0);
document.getElementById("demo").innerHTML = d;
</script>
</body>
```

Output:

Thu Jun 24 1999 11:33:30 GMT+0530 (India Standard Time)

Method	Description
getFullYear()	Get the year as a four digit number (yyyy)
getMonth()	Get the month as a number (0-11)
getDate()	Get the day as a number (1-31)
getHours()	Get the hour (0-23)

Date methods

getDate() method

returns the day of the month (from 1 to 31)
for the specified date.

Example: getDate()

```
<html> <body>
```

```
<p>Click the button to display todays day of the month.</p>
```

```
<button onclick="myFunction()">Try it</button>
```

```
<p id="demo"></p>
```

```
<script>
```

```
function myFunction()
```

```
{
```

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

```
    var n = d.getDate();
```

```
    document.getElementById("demo").innerHTML = n;
```

```
}
```

```
</script> </body> </html>
```

Another way: using getDate()

```
<html>
```

```
<body>
```

```
<script>
```

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

```
    var n = d.getDate();
```

```
    document.write(n);
```

```
</script>
```

```
</body>
```

```
</html>
```

Output= 2 (whatever is the current date)

getFullYear()

```
<html>
```

```
<body>
```

```
<p id="demo"></p>
```

```
<script>
```

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

```
document.getElementById("demo").innerHTML = d.getFullYear();
```

```
</script>
```

```
</body>
```

```
</html>
```

Output

2020

getMonth() Method

The getMonth() method returns the month of a date as a number (0-11):

```
<html>
```

```
<body>
```

```
<p id="demo"></p>
```

```
<script>
```

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

```
document.getElementById("demo").innerHTML = d.getMonth() ;
```

```
</script>
```

```
</body>
```

```
</html>
```

getHours() Method

The `getHours()` method returns the hours of a date as a number (0-23)

```
<html>
```

```
<body>
```

```
<p id="demo"></p>
```

```
<script>
```

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

```
document.getElementById("demo").innerHTML = d.getHours();
```

```
</script>
```

```
</body>
```

```
</html>
```

Method

Description

`setDate()`

Set the day as a number (1-31)

`setFullYear()`

Set the year (optionally month and day)

`setHours()`

Set the hour (0-23)

`setMonth()`

Set the month (0-11)

The setDate() Method

setDate() sets the day of the month (1-31)

Example:

```
<html><body><script>  
var d = new Date();  
d.setDate(15);  
document.write(d);  
</script></body></html>
```

Output:

Sat Aug 15 2020 20:20:00 GMT+0530 (India Standard Time)

setHours() Method

The setHours() method sets the hours of a date object (0-23):

```
<html>
```

```
<body>
```

```
<p id="demo"></p>
```

```
<script>
```

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

```
d.setHours(22);
```

```
document.getElementById("demo").innerHTML = d;
```

```
</script>
```

```
</body>
```

```
</html>
```

Wed Aug 26 2020 22:12:53 GMT+0530 (India Standard Time)

The setMonth() Method

The setMonth() method sets the month of a date object (0-11):

```
<html>
```

```
<body>
```

```
<p id="demo"></p>
```

```
<script>
```

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

```
d.setMonth(11);
```

```
document.getElementById("demo").innerHTML = d;
```

```
</script>
```

```
</body>
```

```
</html>
```

Sat Dec 26 2020 11:14:24 GMT+0530 (India Standard Time)

The setFullYear() Method

The setFullYear() method sets the year of a date object. In this example to 2020:

```
<html>
```

```
<body>
```

```
<p id="demo"></p>
```

```
<script>
```

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

```
d.setFullYear(2020);
```

```
document.getElementById("demo").innerHTML = d;
```

```
</script>
```

```
</body>
```

```
</html>
```

Wed Aug 26 2020 11:15:30 GMT+0530 (India Standard Time)