JavaScript Date Functions

📘 JavaScript Date Functions – Day, Month, Year Related

🔷 1. `new Date()`

Creates a new Date object.

```js
let today = new Date();  // current date and time
console.log(today);      // Example: Mon May 06 2025 12:00:00 GMT+0530
```

You can also pass a specific date:

```js
let birth = new Date('2005-10-21');
```

🔷 2. `.getFullYear()`

Returns the **year (4-digit)** from a Date object.

```js
let date = new Date('2025-03-15');
console.log(date.getFullYear());  // Output: 2025
```

🔷 3. `.getMonth()`

Returns the **month (0-based)**:

`0 = January`, `1 = February`, ..., `11 = December`

```js
let date = new Date('2025-03-15');
console.log(date.getMonth());  // Output: 2 (March is index 2)
```

```js
let month = date.getMonth() + 1;
```

🔷 4. `.getDate()`

Returns the **day of the month** (1–31)

```
let date = new Date('2025-03-15');
console.log(date.getDate());  // Output: 15
```

🔷 5. `.getDay()`

Returns the **day of the week** (0–6):

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

```
let date = new Date('2025-03-15');
console.log(date.getDay());  // Output: 6 (Saturday)
```

🔷 6. Days in a Month (Smart Trick)

Find how many days in any month:

```
// Get total days in February 2025
let daysInFeb = new Date(2025, 2, 0).getDate();
console.log(daysInFeb);  // Output: 28 (2025 is not a leap year)
```

> Use 0 as day to get the last day of the previous month.

```
// Days in April
new Date(2025, 4, 0).getDate();  // Output: 30 (April has 30 days)
```

🔷 7. `.setFullYear(year)`

Sets the year of a date object.

```
let d = new Date();
d.setFullYear(2000);
console.log(d);  // year will be 2000 now
```

🔷 8. `.setMonth(month)`

Sets the month (0–11)

```
let d = new Date();
d.setMonth(0);  // Sets to January
```

🔷 9. .setDate(day)

Sets the **day of the month.**

```
let d = new Date();
d.setDate(15);  // Sets to 15th of the month
```

🔷 10. Getting Time Differences in ms/days

```
let dob = new Date('2000-01-01');
let today = new Date();

let diffInMs = today - dob;  // difference in milliseconds
let days = Math.floor(diffInMs / (1000 * 60 * 60 * 24));  // convert to days

console.log(`You are ${days} days old`);
```

📌 Summary Table

Function	Returns
getFullYear()	Year (e.g., 2025)
getMonth()	Month index (0–11)
getDate()	Day of month (1–31)
getDay()	Weekday index (0–6) → started from Sunday
new Date(Y, M, 0)	Last day of previous month
setFullYear(year)	Sets the year
setMonth(month)	Sets the month
setDate(day)	Sets the day of month