



JavaScript **Cheatsheet**



JavaScript Basics

1. Variables

```
var name = 'John'; // ES5  
let age = 30; // ES6  
const isAdult = true; // ES6
```

2. Data Types

```
const str = 'Hello';  
const num = 100;  
const bool = false;  
const obj = {name: 'John', age: 30};  
const arr = [1, 2, 3];  
const undef = undefined;  
const nul = null;
```

3. Functions

```
function greet(name) {  
  return `Hello, ${name}`;  
}  
  
const add = (a, b) => a + b; // ES6
```

4. Conditionals

```
if (age > 18) {  
  console.log('Adult');  
} else {  
  console.log('Not an adult');  
}
```

5. Loops

```
for (let i = 0; i < 5; i++) {  
  console.log(i);  
}
```

```
arr.forEach(item => console.log(item)); // ES6
```

6. Objects

```
const person = {  
  name: 'John',  
  age: 30,  
  greet() {  
    console.log('Hello');  
  }  
};
```

7. Array Methods

```
const numbers = [1, 2, 3, 4, 5];  
const doubled = numbers.map(num => num * 2); // [2, 4, 6, 8, 10]  
const evens = numbers.filter(num => num % 2 === 0); // [2, 4]
```

8. Promises

```
const fetchData = () => {  
  return new Promise((resolve, reject) => {  
    setTimeout(() => {  
      resolve('Data received');  
    }, 2000);  
  });  
};
```

```
fetchData()  
  .then(data => console.log(data))  
  .catch(error => console.error(error));
```

9. Async/Await

```
async function getData() {  
  try {  
    const data = await fetchData();  
    console.log(data);  
  } catch (error) {  
    console.error(error);  
  }  
}  
  
getData();
```

JavaScript DOM Manipulation

1. Selecting Elements

```
const element = document.getElementById('myId');  
const elements = document.getElementsByClassName('myClass');  
const allElements = document.getElementsByTagName('div');  
const queryElement = document.querySelector('.myClass');  
const queryAllElements = document.querySelectorAll('div');
```

2. Manipulating Elements

```
element.textContent = 'Hello, World!';  
element.innerHTML = '<strong>Hello, World!</strong>';  
element.style.color = 'red';
```

3. Adding/Removing Classes

```
element.classList.add('new-class');  
element.classList.remove('old-class');  
const hasClass = element.classList.contains('myClass');
```

4. Creating Elements

```
const newElement = document.createElement('div');  
newElement.textContent = 'New Element';  
document.body.appendChild(newElement);
```

5. Removing Elements

```
element.remove();
```

6. Event Listeners

```
element.addEventListener('click', () => {  
  console.log('Element clicked!');  
});
```

7. Form Handling

```
const form = document.querySelector('form');
```

```
form.addEventListener('submit', event => {  
  event.preventDefault();  
  const formData = new FormData(form);  
  const name = formData.get('name');  
  console.log(name);  
});
```

JavaScript ES6 Features

1. Arrow Functions

```
const add = (a, b) => a + b;
```

2. Template Literals

```
const name = 'John';  
const greeting = `Hello, ${name}!`;
```

3. Destructuring

```
const person = { name: 'John', age: 30 };  
const { name, age } = person;
```

```
const numbers = [1, 2, 3, 4];  
const [first, second] = numbers;
```

4. Spread Operator

```
const arr1 = [1, 2, 3];  
const arr2 = [...arr1, 4, 5, 6];
```

```
const obj1 = { a: 1, b: 2 };  
const obj2 = { ...obj1, c: 3 };
```

5. Rest Parameters

```
const sum = (...args) => args.reduce((acc, curr) => acc + curr, 0);
```

6. Default Parameters

```
const multiply = (a, b = 1) => a * b;
```

7. Classes

```
class Person {  
  constructor(name, age) {  
    this.name = name;  
    this.age = age;  
  }  
  
  greet() {  
    console.log(`Hello, my name is ${this.name}`);  
  }  
}
```

```
}
```

```
const john = new Person('John', 30);  
john.greet();
```

8. Modules

```
// Exporting (in person.js)  
export const name = 'John';  
export const age = 30;  
export default Person;
```

9. Importing (in another file)

```
import Person, { name, age } from './person';
```