JavaScript Important Topics - Complete Notes

1. Variables (var, let, const)

- var: function-scoped, can be redeclared.

- let: block-scoped, cannot be redeclared.

- const: block-scoped, cannot be reassigned.

Example:

let x = 10;

const y = 20;

2. Data Types

- Primitive: string, number, boolean, null, undefined, bigint, symbol

- Reference: objects, arrays, functions

Example:

let name = "Adnan";

let arr = [1,2,3];

3. Functions

- Function declaration

- Function expression

- Arrow functions

Example:

function add(a,b){ return a+b; }

const sub = function(a,b){ return a-b; }

const mul = (a,b)=> a*b;

4. Objects

- Key-value pairs

Example:

const user = {name:"Ali", age:20};

5. Arrays

- push, pop, shift, unshift, map, filter, reduce

Example:

```
const nums = [1,2,3];
nums.map(n=>n*2);
```

6. Loops

- for, while, do-while, for-of, for-in

Example:

```
for(let i of nums){ console.log(i); }
```

7. DOM Manipulation

document.querySelector, textContent, style

Example:

```
document.querySelector("#box").textContent = "Hello";
```

8. Events

click, keydown, submit

Example:

```
btn.addEventListener("click", ()=> console.log("clicked"));
```

9. Async JavaScript

- Callback

- Promises

- async/await

Example:

```
async function getData(){ return await fetch(url); }
```

10. Classes

```
class Person{
constructor(name){ this.name = name; }
greet(){ console.log("Hello "+this.name); }
}
```