



Conditionals

Keyword	Purpose
<code>if</code>	Run block only if condition is true
<code>else</code>	Run block if condition is false
<code>else if</code>	Check multiple conditions
<code>switch</code>	Check one variable against many possible values
Ternary <code>? :</code>	Short-hand for if-else

If / else if / else

- `if` = agar ye condition true hai
- `else if` = warna agar dusri condition true hai
- `else` = sab galat ho gaya toh ye karo

```
// if / else / elseif
age = 23;

if(age>18){
|   console.log(`you are eligible to vote`)
| }
if (age> 22) {           //else if; terminate at if condn, if hai to
|   console.log("you are eligble for candidate")
| }
else{
|   console.log("you are not eligible to vote")
| }

if (1){           //truthy
|   console.log("this statment will always execute")
| }
if (0){           //falsy
|   console.log("this statment will never execute")
| }
}
```

Nullish coalescing

The **nullish coalescing operator (??)** is used to provide a **default value** when the original value is either `null` or `undefined` .

It is **not** triggered by `false` , `0` , or `""` (empty string) — only by **null or undefined**

```
// nullish coalescing operator (??): null undefined (fallback)
// do safety check if null or undeinfed then null ?? 18 ; consider 18
let val1
val1= 5 ?? 10
console.log(val1)    //5

let val2
val2= null ?? 10
console.log(val2)    //10

let val3
val3= undefined ?? 15
console.log(val3);
```

Ternary operator

condition ? expressionIfTrue : expressionIfFalse;

```
// ternary operator
const teaPrice= 78
teaPrice >= 80 ? console.log("less than 80"): console.log("more than 80");
```

Switch

- `switch` is used to test **one variable** or expression against **multiple possible values**.
- It's an alternative to multiple `if...else if` blocks — making code **cleaner and easier** when you have many conditions on the **same variable**.

1. Always use `break` — or it may fall through to the next case.

2. Always end with a `default` — to handle unexpected inputs.
3. You can group multiple `case` s to avoid duplicate code.

```
a= 10;
b= 15;
op= "*"
switch(op){

    case "+": {
        console.log(a+b)           //break nahi add kara toh saree run hota
        break;
    }
    case "-":{
        console.log(a-b)
        break;
    }
    case "*":{
        console.log(a*b)
        break;
    }
    case "/": {
        console.log(a/b)
        break;
    }
    default: {
        console.log("Invalid operation")           //no break
    }
}

// return meh console.log matt karna ; return "message"
```