1 if Statement

- **Use:** Single condition check
- **Syntax:**

```
if(condition){
   // code if true
}
```

- **Example:**

```
let age = 20;
if(age >= 18){
   console.log("Adult");
}
```

- Output: Adult

2 if...else Statement

- **Use:** True/False decision
- **Syntax:**

```
if(condition){
   // true code
}else{
   // false code
}
```

- **Example:**

```
let age = 16;
if(age >= 18){
   console.log("Adult");
}else{
   console.log("Not Adult");
}
```

- Output: Not Adult

3 if...else if...else Statement

• **Use:** Multiple conditions
• **Syntax:**

```
if(condition1){
  // code1
}else if(condition2){
  // code2
}else{
  // default code
}
```

• **Example:**

```
let marks = 80;
if(marks >= 90){ console.log("Grade A"); }
else if(marks >= 75){ console.log("Grade B"); }
else if(marks >= 50){ console.log("Grade C"); }
else{ console.log("Fail"); }
```

• Output: Grade B

4 switch Statement

• **Use:** One variable, multiple exact values
• **Syntax:**

```
switch(expression){
  case value1: code; break;
  case value2: code; break;
  default: code;
}
```

• **Example:**

```
let day = 2;
switch(day){
  case 1: console.log("Monday"); break;
  case 2: console.log("Tuesday"); break;
  case 3: console.log("Wednesday"); break;
  default: console.log("Invalid day");
}
```

• Output: Tuesday

5 Ternary Operator (? :)

- **Use:** Short if...else one line
- **Syntax:**

```
condition ? codeIfTrue : codeIfFalse;
```

- **Example:**

```
let age = 19;
let result = (age >= 18) ? "Adult" : "Not Adult";
console.log(result);
```

- Output: Adult

6 Points to Remember

1. Single condition → if
2. Two-way decision → if...else
3. Multiple conditions → if...else if...else
4. One variable, multiple exact values → switch
5. Short decision → ternary
6. Avoid nested conditions → use functions
7. Keep code clean & readable

7 Real Project Examples

Role-based Dashboard:

```
let role = "editor";
if(role === "admin"){ console.log("Show admin panel"); }
else if(role === "editor"){ console.log("Show editor dashboard"); }
else{ console.log("Show user homepage"); }
```

- Output: Show editor dashboard

Discount Calculation:

```
let amount = 1200;
let discount = (amount > 1000) ? 100 : 0;
console.log(discount); // 100
```

Day of Week:

```
let day = 5;
switch(day){ case 1: console.log("Monday"); break; case 5:
console.log("Friday"); break; default: console.log("Other Day"); }
```

- Output: Friday

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8 Summary Table

Condition Type	Use Case	Example
if	Single condition	if(age>18){...}
if...else	True/False	if(age>18){...} else
if...else if...else	Multiple conditions	if(...){...} else if(...){...} else
switch	One variable, multiple exact values	switch(day){case 1:...}
ternary	Short one-line decision	let status = (age>18)?'Adult':'Minor'