1 Conditional Statements क्या हैं?

• Decision making के लिए use होते हैं
• Condition true → एक block execute, false → दूसरा block

2 Types of Conditional Statements

1. if statement
2. if...else statement
3. if...else if...else statement
4. switch statement
5. ternary operator (? :)

3 if Statement

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

- Output: Adult - Condition false → nothing happens

4 if...else Statement

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

- Output: Not Adult

5 if...else if...else Statement

```
let marks = 75;
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

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6 switch Statement

```
let day = 3;
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: Wednesday

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7 Ternary Operator (? :)

```
let age = 20;
let result = (age >= 18) ? "Adult" : "Not Adult";
console.log(result);
```

- Output: Adult - Short form of if...else

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8 Why use Conditional Statements?

1. Decision making → code flow control
2. Dynamic behavior → input के आधार पर response बदलना
3. Reduce repetitive code → one block executes based on condition

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9 When & Where to use?

- Form validation → check if user input is valid
- User role based actions → admin / guest / user
- Dynamic rendering → show/hide elements based on conditions
- Game logic → score, level, player status
- Project examples: E-commerce discounts, Banking withdrawal check, React conditional rendering

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10 Real Project Example

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

- Output: Show admin panel - Role-based rendering in projects

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Summary Table

Statement 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	Multiple exact values	switch(day){case 1: ...}
ternary	Short if-else	let result = (age>=18)? "Adult":"Not Adult"

✅ Best Practice: - Short, readable, maintainable code - Complex conditions → use functions to keep code clean