Day 3 Pre notes : Conditionals and logical operators

Conditional statements are fundamental constructs in JavaScript that allow developers to execute different blocks of code based on specific conditions. These statements enable decision-making in programs, allowing for dynamic responses to varying inputs or situations.

Types of Conditional Statements

1. if Statement:
   * The if statement evaluates a condition and executes a block of code if the condition is true.
   * Syntax:

if (condition) {

*// code to be executed if condition is true*

}

1. if...else Statement:
   * The if...else statement extends the if statement by adding an alternative block of code that executes when the condition is false.
   * Syntax:

if (condition) {

*// code to be executed if condition is true*

} else {

*// code to be executed if condition is false*

}

1. else if Statement:
   * The else if statement allows you to check multiple conditions. It specifies a new condition if the previous one is false.
   * Syntax:

if (condition1) {

*// code if condition1 is true*

} else if (condition2) {

*// code if condition2 is true*

} else {

*// code if both conditions are false*

}

1. Switch Statement:
   * The switch statement evaluates an expression and executes the corresponding block of code for the matching case. It is particularly useful for handling multiple potential values of a single variable.
   * Syntax:

switch (expression) {

case value1:

*// code to be executed if expression === value1*

break;

case value2:

*// code to be executed if expression === value2*

break;

default:

*// code to be executed if none of the cases match*

}

1. Ternary Operator

The ternary operator is a shorthand way to write simple if...else statements. It takes three operands: a condition, an expression for true, and an expression for false.

Syntax:

condition ? exprIfTrue : exprIfFalse;

9. Logical Operators

Logical operators are used to combine or invert conditions in conditional statements. The main logical operators are:

* AND operator (&&): Returns true if both operands are true.
* OR operator (||): Returns true if at least one of the operands is true.
* NOT operator (!): Inverts the value of its operand.