**Day-6**

**Conditional statements**

Conditional statements allows you to execute different blocks of code based on specified conditions.

**1. if Statement:**

The **if** statement executes a block of code if a specified condition is true.

Syntax:

## **if (condition) {**

## **// Code to execute if condition is true**

## **}**

let x = 10;

if (x > 0) {

console.log("x is positive");

}

**2. if...else Statement:**

The **if...else** statement executes one block of code if a specified condition is true and another block if the condition is false.

## **if (condition) {**

## **// Code to execute if condition is true**

## **} else {**

## **// Code to execute if condition is false**

## **}**

let x = -5;

if (x > 0) {

console.log("x is positive");

} else {

console.log("x is non-positive");

}

**3)if...else if...else Statement:**

The **if...else if...else** statement allows you to specify multiple conditions and execute different code blocks based on the outcome of those conditions.

## **if (condition1) {**

## **// Code to execute if condition1 is true**

## **} else if (condition2) {**

## **// Code to execute if condition2 is true**

## **} else {**

## **// Code to execute if none of the conditions are true**

## **}**

let x = -5;

if (x > 0) {

console.log("x is positive");

} else if (x < 0) {

console.log("x is negative");

} else {

console.log("x is zero");

}

**Switch statements**

A switch statement in JavaScript is a control flow statement that allows you to execute a block of code among many options based on the value of an expression.

# **switch (expression) {**

# **case value1:**

# **// Code to run if expression === value1**

# **break;**

# **case value2:**

# **// Code to run if expression === value2**

# **break;**

# **// More cases...**

# **default:**

# **// Code to run if no case matches**

# **}**

**Key Points**

1. **Expression Evaluation**: The **expression** inside the switch statement is evaluated once.
2. **Case Matching**: The result of the expression is compared with the values specified in each **case** clause using strict equality (**===**).
3. **Code Execution**: If a match is found, the code block associated with that **case** is executed.
4. **Break Statement**: The **break** statement is used to terminate the switch statement. If omitted, execution will continue to the next **case** clause (fall-through behavior).
5. **Default Case**: The **default** clause is optional and executes if no matching **case** is found. It acts like the **else** in an if-else structure.

switch (grade) {

case 'A': console.log('Excellent');

break;

case 'B':

case 'C':console.log('Well done');

break;

case 'D':console.log('You passed');

break;

case 'F':console.log('Better try again');

break;

default:console.log('Invalid grade');

}