<!-- ! Conditional Statement -->

<!-- ! 1. if statement -->

The if statement is used to evaluate a particular condition. If the condition holds true, the associated code block is executed.

<!--? syntax: -->

```
if ( condition ) {
    <!-- If the condition is met,
    code will get executed. -->
}
```

<!--! 2. if-else Statement -->

The if-else statement will perform some action for a specific condition. Here we are using the else statement in which the else statement is written after the if statement and it has no condition in their code block.

<!-- ? synatax -->

```
if (condition)
{
    <!-- executes if the condition is true -->
}
else {
   <!-- if the above condition is not true then this block will execute -->
}
```

<!--! 3. else if Statement -->

The else if statement in JavaScript allows handling multiple possible conditions and outputs, evaluating more than two options based on whether the conditions are true or false.

<!-- ? syntax -->

```
if (condition1) {

   <!-- Code to execute if condition1 is true -->
} else if (condition2) {

   <!-- Code to execute if condition1 is false and condition2 is true  -->
} else if (condition3) {

   <!-- Code to execute if conditions1 and 2 are false and condition3 is true
-->
} else {

   <!-- Code to execute if none of the above conditions are true -->
}
```

<!--! 4. Switch Statement -->

As the number of conditions increases, you can use multiple else-if statements in JavaScript.
but when we dealing with many conditions, the switch statement may be a more preferred option.

<!-- ? syntax -->

```
switch (expression) {
    case value1:
        statement1;
        break;
    case value2:
        statement2;
        break;
    . . .
    . . .
    case valueN:
        statementN;
        break;
    default:
        statementDefault;
};
```

```
// !    if()

let num1 = 0

if(num1>0)
{
    console.log('greater than zero')
}
console.log('-------------------------------------------------------')

// !  if-else()

let num2 = 0

if(num2>0)
{
    console.log('greater than zero')
}
else{
    console.log('not greater than zero')
}

console.log('-------------------------------------------------------------')

// !   else if()

let num3 = 10 ;

if(num3 ==0)
{
    console.log('it is zero')
}
else if(num3>0)
{
    console.log('it is greater than zero')
}
else{
    console.log('it is less than zero')
}

console.log('-----------------------------------------------------')
```

```
// ! task 1:  take a number from user and print whether it is odd or even


// let num4 = Number.parseInt(prompt("enter one number"))

// if(num4 % 2 == 0)
// {
//     console.log(`${num4} is even`)
// }
// else{
//     console.log(`${num4} is odd`)
// }


// !   Nested If-Else

let num5 = 12

if(num5>0)
{
         if(num5>15)
         {
            console.log('greater than 15')
         }
         else{
            console.log('greater than zero but less than 15')
         }
}
else{
    console.log('less than 0')
}
```

```
// ! task 2:  LeapYear  using nested if-else

let year = 1900

if(year % 4 == 0){

    if(year % 100 == 0)
    {

        if(year % 400==0)
        {
            console.log('it is leap year')
        }
        else{
            console.log('not leap year')
        }

    }
    else{
        console.log('leap year')
    }
}
else{
    console.log('not leap year')
}

// !   switch()

let day = 2;
switch(day)
{
    case 1: console.log('this is sunday')
            break;
    case 2: console.log('this is monday')
            break;
    case 3: console.log('this is tuesday')
            break;
    case 4: console.log('this is wednesday')
            break;
    case 5: console.log('this is thursday')
            break;
    case 6: console.log('this is friday')
            break;
    case 7: console.log('this is saturday')
            break;
    default: console.log('not valid day')
}
```

```
// !  task 3:   create calculator using switch

let num6 = 20
let num7 = 10

let operator = "*"
switch(operator)
{
  case "+" : console.log(num6 + num7)
             break;
  case "-" : console.log(num6 - num7)
                break;
  case '*' : console.log(num6 * num7)
                break;
  case '/' : console.log(num6 / num7)
                break;
  default : console.log('invalid operation')
}
```