

## SEC PRACTICAL 1 TO 10

1. Write a javascript to check whether a year is leap or not..

```
<!DOCTYPE html>
<html>
<head>
  <title>Leap Year</title>
</head>
<body>
  <h1>Check whether it is a leap year or not</h1>
  <label for="yearInput">Enter:</label>
  <input type="number" id="yearInput" placeholder="Enter a year">
  <button onclick="checkLeapYear()">Check</button>
  <p id="result"></p>

  <script>
    function checkLeapYear() {
      var year = parseInt(document.getElementById("yearInput").value);

      if ((year % 4 === 0 && year % 100 !== 0) || (year % 400 === 0)) {
        document.getElementById("result").innerHTML = year + " is a Leap Year!";
      } else {
        document.getElementById("result").innerHTML = year + " is not a Leap Year.";
      }
    }
  </script>
</body>
</html>
```

2. Write a javascript to check whether a number is even or odd

```
<!DOCTYPE html>
<html>
<head>
  <title>Even or Odd </title>
</head>
<body>
  <h1>Even or Odd Checker</h1>
  <input type="number" id="num" placeholder="Enter a number">
  <button onclick="checkEvenOrOdd()">Check</button>
  <p id="result"></p>

  <script>
    function checkEvenOrOdd() {
      var number = document.getElementById("num").value;
```

```

        var result = document.getElementById("result");
        result.innerHTML = isNaN(number) ? "Please enter a valid number" : (number % 2 ===
0 ? "The number is Even" : "The number is Odd");
    }
</script>
</body>
</html>

```

3. Write a javascript to check whether a number is positive, negative or neutral.

```

<!DOCTYPE html>
<html>

<head>
    <title>Positive, Negative, or Neutral number</title>
</head>

<body>
    <h1>Positive, Negative, or Neutral number</h1>
    <script>
        var number = prompt('Enter your number:');
        var num = parseFloat(number);

        if (!isNaN(num)) {
            if (num > 0) {
                alert(num + ' is Positive Number');
            } else if (num < 0) {
                alert(num + ' is Negative Number');
            } else {
                alert(num + ' is Neutral Number');
            }
        } else {
            alert('Enter a valid number.');
```

4. Write a javascript to print the numbers from 1 to 10

```

<!DOCTYPE html>
<html>
<head>
    <title>1 to 10 numbers</title>
</head>
<body>

```

```

<h1>Numbers from 1 to 10</h1>
<div id="numbers"></div>
<script>
    let numbersDiv = document.getElementById("numbers");
    for (let i = 1; i <= 10; i++) {
        numbersDiv.innerHTML += i + "<br>";
    }
</script>
</body>
</html>

```

5. Write a javascript to print the numbers in reverse order

```

<!DOCTYPE html>
<html>
<head>
    <title>Printing Numbers in Reverse</title>
</head>
<body>
    <h1>Numbers from 10 to 1 in Reverse Order</h1>
    <div id="numbers"></div>
    <script>
        let numbersDiv = document.getElementById("numbers");
        for (let i = 10; i >= 1; i--) {
            numbersDiv.innerHTML += i + "<br>";
        }
    </script>
</body>
</html>

```

6. Write a javascript to print the reverse of a number....

```

<!DOCTYPE html>
<html>
<head>
    <title>Reverse of a Number</title>
</head>
<body>
    <h1>Reverse of a Number</h1>
    <input type="number" id="num" placeholder="Enter your number">
    <button onclick="reverseNumber()">Check</button>
    <p id="reversedanswer"></p>

    <script>
        function reverseNumber() {
            var number = document.getElementById("num").value;
            var reversedanswer = document.getElementById("reversedanswer");

            reversedanswer.innerHTML = `Reverse: ${number.split("").reverse().join("")}`;
        }
    </script>

```

```
</script>
</body>
</html>
```

7. Write a javascript to check whether a number is Armstrong number or not

```
<!DOCTYPE html>
<html>

<head>
  <title>Armstrong Number</title>
</head>

<body>
  <h1>Armstrong Number Checker</h1>
  <label for="userInput">Enter a number:</label>
  <input type="text" id="userInput">
  <button onclick="checkArmstrong()">Check</button>
  <div id="armstrongResult"></div>

  <script>
    function checkArmstrong() {
      let userInput = document.getElementById("userInput").value;
      let armstrongResultDiv = document.getElementById("armstrongResult");
      let sum = 0;

      for (let i = 0; i < userInput.length; i++) {
        sum += Number(userInput[i]) ** userInput.length;
      }

      const isArmstrong = sum === Number(userInput);
      armstrongResultDiv.innerHTML = `${userInput} ${isArmstrong ? 'is an Armstrong' : 'is not an Armstrong'} number.`;
    }
  </script>
</body>

</html>
```

8. Write a javascript to check whether a number is Palindrome or not

```
<!DOCTYPE html>
<html>
<head>
  <title>Palindrome Checker</title>
</head>
<body>
  <h1>Palindrome Checker</h1>
```

```

<label for="number">Enter a number:</label>
<input type="number" id="number">
<button onclick="checkPalindrome()">Check</button>
<p id="answer"></p>

<script>
    function checkPalindrome() {
        var number = document.getElementById("number").value;
        var isPalindrome = number.toString() === number.toString().split("").reverse().join("");
        document.getElementById("answer").innerHTML = isPalindrome ? "It's a Palindrome!" :
"Not a Palindrome";
    }
</script>
</body>
</html>

```

9. Write a javascript to check whether a string is Palindrome or not

```

<!DOCTYPE html>
<html>
<head>
    <title>Palindrome</title>
</head>
<body>
    <h1>Palindrome</h1>
    <label for="String">Enter a string:</label>
    <input type="text" id="String">
    <button onclick="checkPalindrome()">Check</button>
    <p id="answer"></p>

    <script>
        function checkPalindrome() {
            var String = document.getElementById("String").value.toLowerCase();
            var isPalindrome = String === String.split("").reverse().join("");
            document.getElementById("answer").innerHTML = isPalindrome ? "It's a Palindrome!" :
"Not a Palindrome";
        }
    </script>
</body>
</html>

```

10. Write a javascript to print the factorial of a number

```

<!DOCTYPE html>
<html>

<head>
    <title>Factorial Calculator</title>
</head>

```

```

<body>
  <h1>Factorial Calculator</h1>

  <label for="numberInput">Enter a number:</label>
  <input type="num" id="num">
  <button onclick="calculateFactorial()">Calculate</button>

  <script>
    function calculateFactorial() {
      const num = document.getElementById('num').value;
      let factorial = 1;

      for (let i = 2; i <= num; i++) {
        factorial *= i;
      }

      alert(`The factorial of ${num} is: ${factorial}`);
    }
  </script>
</body>

</html>

```

11. Write a javascript to print the sum of n numbers

12. Write a javascript to check whether a character is vowel or consonant

```

<!DOCTYPE html>
<html>

<head>
  <title>Vowel or Consonant Checker</title>
</head>

<body>
  <h1>Vowel or Consonant Checker</h1>

  <script>
    const character = prompt('Enter a character:');

    const vowels = 'aeiouAEIOU';
    const isVowel = vowels.includes(character);

    if (isVowel) {
      alert(`${character} is a vowel.`);
    } else {
      alert(`${character} is a consonant.`);
    }
  </script>

```

```

    }
  </script>
</body>

</html>

```

13. Write a javascript to check whether a number is prime number or not

```

<!DOCTYPE html>
<html>
<head>
  <title>Prime Number Checker</title>
</head>
<body>
  <h1>Check Prime Number</h1>
  <label for="Inputprime">Enter a number:</label>
  <input type="text" id="Inputprime" placeholder="Enter number">
  <button onclick="checkPrimeNumber()">Check</button>
  <p id="answer"></p>

  <script>
    function checkPrimeNumber() {
      var number = document.getElementById("Inputprime").value;

      if (isNaN(number) || number <= 1) {
        document.getElementById("answer").innerHTML = "Please enter a valid number
greater than 1.";
        return;
      }

      for (let i = 2; i <= Math.sqrt(number); i++) {
        if (number % i === 0) {
          document.getElementById("answer").innerHTML = `${number} is not a prime
number.`;
          return;
        }
      }

      document.getElementById("answer").innerHTML = `${number} is a prime number!`;
    }
  </script>
</body>
</html>

```

14. Write a javascript to print the Fibonacci series

```

<!DOCTYPE html>
<html>

```

```

<head>
  <title>Fibonacci Series</title>
</head>
<body>
  <h1>Fibonacci Series</h1>
  <div>No. Of Terms:</div>
  <input type="number" id="num" min="1" value="10">
  <button onclick="generateFibonacci()">Generate</button>
  <p id="answer"></p>

  <script>
    function generateFibonacci() {
      var num = parseInt(document.getElementById("num").value);
      var answer = document.getElementById("answer");
      let num1 = 0, num2 = 1, nextTerm;
      let series = "Fibonacci Series:<br>";

      for (let i = 1; i <= num; i++) {
        series += num1 + "<br>";
        nextTerm = num1 + num2;
        num1 = num2;
        num2 = nextTerm;
      }

      answer.innerHTML = series;
    }
  </script>
</body>
</html>

```

15. Write a javascript to print prime numbers between 1 and 100....gadbad....

```

<!DOCTYPE html>
<html>
<head>
  <title>Prime Numbers from 1 to 100</title>
</head>
<body>
  <h1>Prime Numbers from 1 to 100</h1>
  <div id="numbers"></div>
  <script>
    let numbersDiv = document.getElementById("numbers");

    function isPrime(num) {
      for (let i = 2; i < num; i++) {
        if (num % i === 0) {
          return false;
        }
      }
    }
  </script>

```



```

    }
    return num > 1;
}

for (let i = 2; i <= 100; i++) {
    if (isPrime(i)) {
        numbersDiv.innerHTML += i + "<br>";
    }
}
</script>
</body>
</html>

```

16. Write a javascript to print even numbers between 1 and 100

```

<!DOCTYPE html>
<html>
<head>
    <title>Even numbers from 1 to 100</title>
</head>
<body>
    <h1>Even numbers from 1 to 100</h1>
    <div id="numbers"></div>
    <script>
        let numbersDiv = document.getElementById("numbers");
        for (let i = 2; i <= 100; i+=2) {
            numbersDiv.innerHTML += i + "<br>";
        }
    </script>
</body>
</html>

```

17. Write a javascript to print odd numbers between 1 and 100

```

<!DOCTYPE html>
<html>
<head>
    <title>Odd numbers from 1 to 100</title>
</head>
<body>
    <h1>Odd numbers from 1 to 100</h1>
    <div id="numbers"></div>
    <script>
        let numbersDiv = document.getElementById("numbers");
        for (let i = 1; i <= 100; i+=2) {
            numbersDiv.innerHTML += i + "<br>";
        }
    </script>
</body>

```

</html>

18. Write a javascript to print leap years between 2021 and 2030

```
<!DOCTYPE html>
<html>
<head>
  <title>leap years between 2021 and 2030</title>
</head>
<body>
  <h1>leap years between 2021 and 2030</h1>
  <div id="leapyears"></div>
  <script>
    let leapyearsDiv = document.getElementById("leapyears");
    for (var year = 2021; year <= 2030; year++) {
      if ((year % 4 === 0 && year % 100 !== 0) || (year % 400 === 0)) {
        leapyearsDiv.innerHTML += year + "<br>";
      }
    }
  </script>
</body>
</html>
```

19. Write a javascript to validate a mobile number

```
<!DOCTYPE html>
<html>
<head>
  <title>Mobile Number Validation</title>
</head>
<body>
  <h1>Mobile Number Validation</h1>
  <label for="number">Enter your mobile number:</label>
  <input type="text" id="number" placeholder="eg:1234567890">
  <button onclick="validateMobileNumber()">Validate</button>
  <p id="answer"></p>

  <script>
    function validateMobileNumber() {
      var number = document.getElementById("number").value;
      var num = /^[0-9]{10}$/;

      if (num.test(number)) {
        document.getElementById("answer").innerHTML = "Valid mobile number!";
      } else {
        document.getElementById("answer").innerHTML = "Invalid mobile number";
      }
    }
  </script>
</body>
</html>
```

```

    </script>
</body>
</html>

```

20. Write a javascript to validate an email id.

```

<!DOCTYPE html>
<html>
<head>
    <title>Email Validation</title>
</head>
<body>
    <h1>Email Validation</h1>
    <label for="email">Enter your email id:</label>
    <input type="text" id="email" placeholder="eg.abx@gmail.com">
    <button onclick="validateEmail()">Validate</button>
    <p id="answer"></p>

    <script>
        function validateEmail() {
            var email = document.getElementById("email").value;
            var isValid = /^[^\s@]+@[^\s@]+\.[^\s@]+$/.test(email);
            document.getElementById("answer").innerHTML = isValid ? "Valid email address!" :
            "Invalid email address, Enter a valid email.";
        }
    </script>
</body>
</html>Practical Assignment

```

1. Write a javascript to check whether a year is leap or not....gadbad...

```

<!DOCTYPE html>
<html>
<head>
    <title>Leap Year</title>
</head>
<body>
    <h1>Check whether it is a leap year or not</h1>
    <label for="yearInput">Enter:</label>
    <input type="number" id="yearInput" placeholder="Enter a year">
    <button onclick="checkLeapYear()">Check</button>
    <p id="result"></p>

    <script>
        function checkLeapYear() {
            var year = parseInt(document.getElementById("yearInput").value);

            if ((year % 4 === 0 && year % 100 !== 0) || (year % 400 === 0)) {

```

```

        document.getElementById("result").innerHTML = year + " is a Leap Year!";
    } else {
        document.getElementById("result").innerHTML = year + " is not a Leap Year.";
    }
}
</script>
</body>
</html>

```

2. Write a javascript to check whether a number is even or odd

```

<!DOCTYPE html>
<html>
<head>
    <title>Even or Odd </title>
</head>
<body>
    <h1>Even or Odd Checker</h1>
    <input type="number" id="num" placeholder="Enter a number">
    <button onclick="checkEvenOrOdd()">Check</button>
    <p id="result"></p>

    <script>
        function checkEvenOrOdd() {
            var number = document.getElementById("num").value;

            var result = document.getElementById("result");
            result.innerHTML = isNaN(number) ? "Please enter a valid number" : (number % 2 ===
0 ? "The number is Even" : "The number is Odd");
        }
    </script>
</body>
</html>

```

3. Write a javascript to check whether a number is positive, negative or neutral.

```

<!DOCTYPE html>
<html>

<head>
    <title>Positive, Negative, or Neutral number</title>
</head>

<body>
    <h1>Positive, Negative, or Neutral number</h1>
    <script>
        var number = prompt('Enter your number:');
        var num = parseFloat(number);

```

```

    if (!isNaN(num)) {
        if (num > 0) {
            alert(num + ' is Positive Number');
        } else if (num < 0) {
            alert(num + ' is Negative Number');
        } else {
            alert(num + ' is Neutral Number');
        }
    } else {
        alert('Enter a valid number.');
```

4. Write a javascript to print the numbers from 1 to 10

```

<!DOCTYPE html>
<html>
<head>
    <title>1 to 10 numbers</title>
</head>
<body>
    <h1>Numbers from 1 to 10</h1>
    <div id="numbers"></div>
    <script>
        let numbersDiv = document.getElementById("numbers");
        for (let i = 1; i <= 10; i++) {
            numbersDiv.innerHTML += i + "<br>";
        }
    </script>
</body>
</html>
```

5. Write a javascript to print the numbers in reverse order

```

<!DOCTYPE html>
<html>
<head>
    <title>Printing Numbers in Reverse</title>
</head>
<body>
    <h1>Numbers from 10 to 1 in Reverse Order</h1>
    <div id="numbers"></div>
    <script>
        let numbersDiv = document.getElementById("numbers");
        for (let i = 10; i >= 1; i--) {
```

```

        numbersDiv.innerHTML += i + "<br>";
    }
</script>
</body>
</html>

```

6. Write a javascript to print the reverse of a number..

```

<!DOCTYPE html>
<html>
<head>
    <title>Reverse of a Number</title>
</head>
<body>
    <h1>Reverse of a Number</h1>
    <input type="number" id="num" placeholder="Enter your number">
    <button onclick="reverseNumber()">Check</button>
    <p id="reversedanswer"></p>

    <script>
        function reverseNumber() {
            var number = document.getElementById("num").value;
            var reversedanswer = document.getElementById("reversedanswer");

            reversedanswer.innerHTML = `Reverse: ${number.split("").reverse().join("")}`;
        }
    </script>
</body>
</html>

```

7. Write a javascript to check whether a number is Armstrong number or not

```

<!DOCTYPE html>
<html>

<head>
    <title>Armstrong Number</title>
</head>

<body>
    <h1>Armstrong Number Checker</h1>
    <label for="userInput">Enter a number:</label>
    <input type="text" id="userInput">
    <button onclick="checkArmstrong()">Check</button>
    <div id="armstrongResult"></div>

    <script>
        function checkArmstrong() {
            let userInput = document.getElementById("userInput").value;

```

```

    let armstrongResultDiv = document.getElementById("armstrongResult");
    let sum = 0;

    for (let i = 0; i < userInput.length; i++) {
        sum += Number(userInput[i]) ** userInput.length;
    }

    const isArmstrong = sum === Number(userInput);
    armstrongResultDiv.innerHTML = `${userInput} ${isArmstrong ? 'is an Armstrong number.' : 'is not an Armstrong number.'}`;
}
</script>
</body>

</html>

```

8. Write a javascript to check whether a number is Palindrome or not

```

<!DOCTYPE html>
<html>
<head>
    <title>Palindrome Checker</title>
</head>
<body>
    <h1>Palindrome Checker</h1>
    <label for="number">Enter a number:</label>
    <input type="number" id="number">
    <button onclick="checkPalindrome()">Check</button>
    <p id="answer"></p>

    <script>
        function checkPalindrome() {
            var number = document.getElementById("number").value;
            var isPalindrome = number.toString() === number.toString().split("").reverse().join("");
            document.getElementById("answer").innerHTML = isPalindrome ? "It's a Palindrome!" :
            "Not a Palindrome";
        }
    </script>
</body>
</html>

```

9. Write a javascript to check whether a string is Palindrome or not

```

<!DOCTYPE html>
<html>
<head>
    <title>Palindrome</title>
</head>

```

```

<body>
  <h1>Palindrome</h1>
  <label for="String">Enter a string:</label>
  <input type="text" id="String">
  <button onclick="checkPalindrome()">Check</button>
  <p id="answer"></p>

  <script>
    function checkPalindrome() {
      var String = document.getElementById("String").value.toLowerCase();
      var isPalindrome = String === String.split("").reverse().join("");
      document.getElementById("answer").innerHTML = isPalindrome ? "It's a Palindrome!" :
"Not a Palindrome";
    }
  </script>
</body>
</html>

```

10. Write a javascript to print the factorial of a number

```

<!DOCTYPE html>
<html>

```

```

<head>
  <title>Factorial Calculator</title>
</head>

```

```

<body>
  <h1>Factorial Calculator</h1>

  <label for="numberInput">Enter a number:</label>
  <input type="num" id="num">
  <button onclick="calculateFactorial()">Calculate</button>

```

```

<script>
  function calculateFactorial() {
    const num = document.getElementById('num').value;
    let factorial = 1;

    for (let i = 2; i <= num; i++) {
      factorial *= i;
    }

    alert(`The factorial of ${num} is: ${factorial}`);
  }
</script>
</body>

</html>

```



