

REACT - ASSINGMENT I

1] Write a JavaScript function called containsString takes two strings and returns whether first one contains the second one?

Solution :

```
function containsString(str, substring)
{
    return str.includes(substring);
}
const mainString = "Hello, World!";
const searchString = "World";
if (containsString(mainString, searchString))
{
    console.log(`${mainString}" contains "${searchString}".`);
}
else
{
    console.log(`${mainString}" does not contain "${searchString}".`);
}
```

Output :

Hello, World! contains World.

2] Write a JavaScript function called printTriangle and uses a loop to print the pattern?

Solution :

```
function printTriangle(height)
{
    for (let i = 1; i <= height; i++)
    {
        let row = "";
        for (let j = 1; j <= i; j++)
        {
            row += '* ';
        }
        console.log(row);
    }
}
```

Output :

```
printTriangle(5)
```

```
*
* *
* * *
* * * *
* * * * *
```

3] Write a JavaScript module that contains functions to calculate the Fibonacci series ?

Solution :

fibonacciModule.js

```
const calculateFibonacciSeries = (numTerms) =>
{
    const fibonacciSeries = [0, 1];
    for (let i = 2; i < numTerms; i++)
    { fibonacciSeries[i] = fibonacciSeries[i - 1] + fibonacciSeries[i - 2]; }
    return fibonacciSeries;
};
module.exports = { calculateFibonacciSeries };
```

main.js

```
const fibonacciModule = require('./fibonacciModule');
const numTerms = 10;
const fibonacciSeries =
fibonacciModule.calculateFibonacciSeries(numTerms);
console.log(`Fibonacci Series (${numTerms} terms): ${fibonacciSeries.join(',')}
`));
```

Output :

Fibonacci Series (10 terms): 0, 1, 1, 2, 3, 5, 8, 13, 21, 34

4] An example for DOM.

Solution :

```
<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <title>DOM Example</title>

</head>

<body>

    <h1 id="demo">Hello, DOM!</h1>

    <button onclick="changeText()">Change Text</button>

    <script>

        function changeText()

        {

            document.getElementById("demo").textContent =

            "Textchanged!";

        }

    </script>

</body>

</html>
```

Output :

The output of this HTML document, when viewed in a web browser.