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 :

```html
<!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.