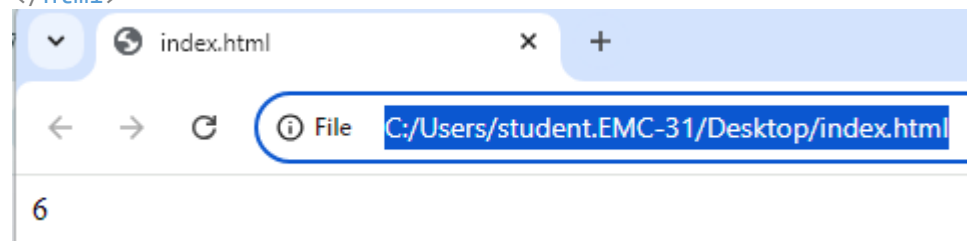


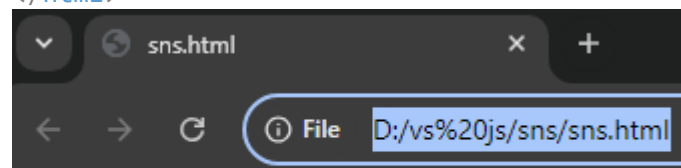
Task 1.1

```
<!DOCTYPE html>
<html>
  <body>
    <script>
      function fact(num){
        if(num==0 || num==1){
          return 1;
        }
        else{
          return num*fact(num-1);
        }
      }
      document.writeln(fact(3));
    </script>
  </body>
</html>
```



TASK 1.2

```
<!DOCTYPE html>
<html>
  <body>
    <script>
      function fib (n){
        if(n === 0){
          return 0;
        }else if(n === 1){
          return 1;
        }else{
          return fib(n-1) + fib(n-2);
        }
      }
      document.writeln(fib(9));
    </script>
  </body>
</html>
```



TASK 1.3

```
<!DOCTYPE html>
<html>
  <body>
    <script>
      function climb(n) {

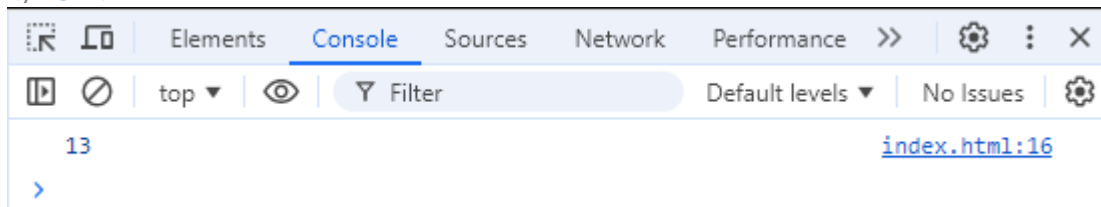
        if (n === 0 || n === 1) return 1;

        if (n === 2) return 2;

        return climb(n - 1) + climb(n - 2) + climb(n - 3);

      }

      let result = climb(5);
      console.log(result);
    </script>
  </body>
</html>
```



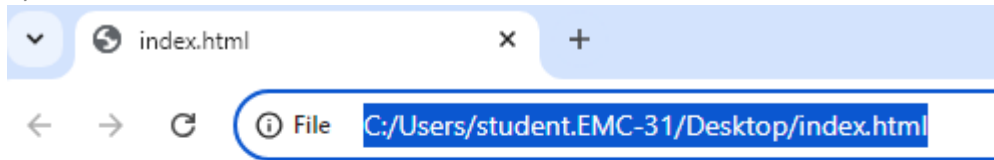
TASK 1.4

```
<!DOCTYPE html>
<html>
  <body>
    <script>
      const flatten = (arr) => {
        let result = [];
        arr.forEach(item => {
          if (Array.isArray(item)) {
            result = result.concat(flatten(item));
          } else {
            result.push(item);
          }
        });
        return result;
      };
      console.log(flatten([5, [6, 7], [8, [9, 0]], 1]));
      console.log(flatten(['I', 'am'], ['very', 'happy'], 'today'));
    </script>
  </body>
</html>
```

PROBLEMS	OUTPUT	DEBUG CONSOLE	TERMINAL	PORTS
		<pre>> (7) [5, 6, 7, 8, 9, 0, 1] > (5) ['I', 'am', 'very', 'happy', 'today']</pre>		

TASK 1.5

```
<!DOCTYPE html>
<html>
  <body>
    <script>
      function towerOfHanoi(n, source, destination, auxiliary) {
        if (n === 1) {
          document.writeln(`Move disk 1 from ${source} to
${destination}`, "<br>");
          return;
        }
        towerOfHanoi(n - 1, source, auxiliary, destination);
        document.writeln(`Move disk ${n} from ${source} to
${destination}`, "<br>");
        towerOfHanoi(n - 1, auxiliary, destination, source);
      }
      const a = 3;
      towerOfHanoi(a, '3', '2', '1');
    </script>
  </body>
</html>
```



```
Move disk 1 from 3 to 2
Move disk 2 from 3 to 1
Move disk 1 from 2 to 1
Move disk 3 from 3 to 2
Move disk 1 from 1 to 3
Move disk 2 from 1 to 2
Move disk 1 from 3 to 2
```