

2. Find the Second Smallest Number in an Array

Question: Given an array of numbers, find the second smallest number **without sorting the array**.

```
function secondSmallest(arr) {  
    // Your code here  
}  
console.log(secondSmallest([4, 1, 6, 2, 8])); // Output: 2  
console.log(secondSmallest([10, 20, 30, 5, 7])); // Output: 7
```

Concepts: Loops, conditional statements.

3. Reverse Words in a Sentence Without Using Built-in Methods

Question: Reverse the words in a sentence while keeping their original order. **Do not use built-in methods like `split()` or `reverse()`**.

```
function reverseWords(sentence) {  
    // Your code here  
}  
console.log(reverseWords("hello world")); // Output: "olleh dlrow"  
console.log(reverseWords("JavaScript is fun")); // Output:  
"tpircSavaJ si nuf"
```

Concepts: Loops, strings, arrays.

4. Find the Missing Number in an Array

Question: You have an array of numbers from 1 to n with one missing number. Find the missing number efficiently.

```
function findMissingNumber(arr, n) {  
  
    // Your code here
```

```
}

console.log(findMissingNumber([1, 2, 4, 5], 5)); // Output: 3

console.log(findMissingNumber([1, 3, 4, 5, 6], 6)); // Output: 2
```

Concepts: Arithmetic operations, loops.

5. Implement a String Compression Algorithm

Question: Given a string, compress it by replacing consecutive duplicate characters with the character followed by the count.

```
function compressString(str) {

    // Your code here

}

console.log(compressString("aaabbccddd")); // Output: "a3b2c1d3"

console.log(compressString("abc")); // Output: "a1b1c1"

console.log(compressString("aabbccddeee")); // Output: "a2b2c2d2e3"
```

Concepts: Loops, string manipulation.