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### 1. Print Even Numbers from an Array

```
function printEvenNumbers(arr) {  
  const evenNumbers = arr.filter(num => num % 2 === 0);  
  console.log("Even Numbers:", evenNumbers); }  
printEvenNumbers([1, 2, 3, 4, 5, 6, 7, 8, 9, 10]);
```

```
[Running] node "c:\Users\shiva\OneDrive\Desktop\react_class\class_Code.js"  
Even Numbers: [ 2, 4, 6, 8, 10 ]
```

### 2. Calculate Factorial of a Number

```
function factorial(num) {  
  if (num < 0) return "Invalid input";  
  let result = 1;  
  for (let i = 1; i <= num; i++) {  
    result *= i;  
  }  
  return result;  
}  
console.log("Factorial:", factorial(5));
```

```
[Running] node "c:\Users\shiva\OneDrive\Desktop\react_class\class_Code.js"  
Factorial: 120
```

### 3. Filter Names Starting with a Specific Letter

```
function filterNamesByLetter(names, letter) {  
  const filteredNames = names.filter(name => name.startsWith(letter));  
  console.log(`Names starting with '${letter}':`, filteredNames);  
}  
filterNamesByLetter(["Ali", "Baba", "carrot", "dema"], "A");
```

```
[Running] node "c:\Users\shiva\OneDrive\Desktop\react_class\class_Code.js"
Names starting with 'A': [ 'Ali' ]
```

#### 4. Sum of Elements in an Array

```
function sumArray(arr) {
  const sum = arr.reduce((total, num) => total + num, 0);
  return sum;
}
console.log("Sum of Array:", sumArray([1, 2, 3, 4, 5]));
```

```
[Running] node "c:\Users\shiva\OneDrive\Desktop\react_class\class_Code.js"
Sum of Array: 15
```

#### 5. Check if a String is a Palindrome

```
function isPalindrome(str) {
  const reversedStr = str.split("").reverse().join("");
  return str === reversedStr;
}
console.log("Is Palindrome:", isPalindrome("racecar"));
```

```
[Running] node "c:\Users\shiva\OneDrive\Desktop\react_class\tempCodeRunnerFile.js"
Is Palindrome: true
```

#### 6. Sort an Array of Objects by Property

```
function sortByProperty(arr, property) {
  arr.sort((a, b) => (a[property] > b[property]) ? 1 : -1);
```

```

    return arr;
}
const people = [
    { name: "shivam", age: 25 },
    { name: "shubham", age: 22 },
    { name: "saurav", age: 30 }
];
console.log("Sorted by Age:", sortByProperty(people, "age"));

```

```

[Running] node "c:\Users\shiva\OneDrive\Desktop\react_class\class_Code.js"
Sorted by Age: [
  { name: 'shubham', age: 22 },
  { name: 'shivam', age: 25 },
  { name: 'saurav', age: 30 }
]

```

7.

## INDEX.HTML FILE

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>SRN Validation</title>
  <link rel="stylesheet" href="styles.css">
</head>
<body>
  <h2>Enter SRN</h2>
  <form id="srnForm">

```

```
<label for="srn">SRN:</label>

<input type="text" id="srn" name="srn" required>

<button type="submit">Submit</button>

</form>

<script src="script.js"></script>

</body>

</html>
```

## STYLE.CSS FILE

```
body {

  font-family: Arial, sans-serif;

  display: flex;

  flex-direction: column;

  align-items: center;

  margin-top: 50px;

}
```

```
h2 {

  color: #333;

}
```

```
form {

  display: flex;

  flex-direction: column;

  align-items: center;

}
```

```
input {

  padding: 8px;

  margin-top: 10px;
```

```
border: 1px solid #ccc;
border-radius: 4px;
}

button {
  margin-top: 10px;
  padding: 8px 12px;
  background-color: #28a745;
  color: white;
  border: none;
  border-radius: 4px;
  cursor: pointer;
}

button:hover {
  background-color: #218838;
}
```

## SCRIPT.JS FILE

```
document.getElementById("srnForm").addEventListener("submit", function(event) {
  event.preventDefault();
  const srnInput = document.getElementById("srn").value;
  const srnPattern = /^[1-4][A-Z]{2}\d{2}[A-Z]{3}\d{2}$/;
  if (srnPattern.test(srnInput)) {
    alert("SRN is valid.");
  } else {
    alert("Invalid SRN format. Please ensure it matches the required pattern.");
  }
});
```

# Enter SRN

SRN:

Submit

## Enter SRN

SRN:

12ASE@

Submit

127.0.0.1:5500 says

Invalid SRN format. Please ensure it matches the required pattern.



## Enter SRN

SRN:

1AS67QWE09

Submit

127.0.0.1:5500 says

SRN is valid.

