1. Display Student Objects Sorted by Total Scores

```
class Student {
    constructor(name, mathScore, scienceScore, englishScore) {
        this.name = name;
        this.mathScore = mathScore;
        this.scienceScore = scienceScore;
        this.englishScore = englishScore;
        this.totalScore = mathScore + scienceScore + englishScore;
    }
}
function displayStudentsSortedByTotalScores(students) {
    students.sort((a, b) => b.totalScore - a.totalScore);
    students.forEach(student => {
        console.log(Name: ${student.name}, Total Score: ${student.totalScore});
    });
}
const student1 = new Student("Alice", 85, 90, 95);
const student2 = new Student("Bob", 75, 80, 85);
const student3 = new Student("Charlie", 95, 85, 90);
const students = [student1, student2, student3];
console.log("Students sorted by total scores:");
displayStudentsSortedByTotalScores(students);
```

2. Remove Duplicate Items from an Array (Ignore Case Sensitivity)

```
function removeDuplicatesIgnoreCase(arr) {
    const lowercasedArray = arr.map(item => item.toLowerCase());
    const uniqueLowercasedArray = [...new Set(lowercasedArray)];
    const uniqueArray = uniqueLowercasedArray.map(item => arr[lowercasedArray.indexOf(item)]);
    return uniqueArray;
}
const array = ["Apple", "banana", "apple", "Orange", "banana", "Mango"];
```

```
const result = removeDuplicatesIgnoreCase(array);
console.log("Original Array:", array);
console.log("Array after removing duplicates (ignore case):", result);
```

3. Find the Most Frequent Character in a Given String

```
function findMostFrequentCharacter(str) {
    const charFrequency = {};
    for (let char of str) {
        if (char !== ' ') {
            if (charFrequency[char]) {
                charFrequency[char]++;
            } else {
                charFrequency[char] = 1;
            }
        }
    }
    let mostFrequentChar = '';
    let highestFrequency = 0;
    for (let char in charFrequency) {
        if (charFrequency[char] > highestFrequency) {
            mostFrequentChar = char;
            highestFrequency = charFrequency[char];
        }
    }
    return mostFrequentChar;
}
const inputString = "hello world";
const mostFrequent = findMostFrequentCharacter(inputString);
console.log("Most frequent character:", mostFrequent);
```

4. Highlight Words Over 8 Characters Long in Paragraph Text

```
document.addEventListener("DOMContentLoaded", function() {
```

```
    const paragraph = document.getElementById("paragraph");
    const words = paragraph.textContent.split(" ");
    words.forEach(word => {
        if (word.length > 8) {
            paragraph.innerHTML = paragraph.innerHTML.replace(new RegExp(word, "g"), <span class="highlight">${word}</span>);
        }
    });
});
```

5. Test if the First Character of a String is Uppercase or Not

```
function isFirstCharUppercase(str) {
    const firstChar = str.charAt(0);
    return /^[A-Z]/.test(firstChar);
}
console.log(isFirstCharUppercase("Hello"));
console.log(isFirstCharUppercase("world"));
console.log(isFirstCharUppercase(""));
console.log(isFirstCharUppercase("123abc"));
```