Module 5: Advanced JavaScript: Arrays, Functions, Scopes, and Modules

Practice Activity 5.1 Practice with Array Manipulation Functions

Solution

```javascript
// Function to add a new task to the task list.
function addTask(tasks, task) {
    tasks.push({ description: task, completed: false });
}

// Function to mark a task as completed.
function completeTask(tasks, taskIndex) {
    if (taskIndex >= 0 && taskIndex < tasks.length) {
        tasks[taskIndex].completed = true;
    }
}

// Function to list all tasks, including their completion status.
function listTasks(tasks) {
    console.log("Task List:");
    tasks.forEach((task, index) => {
        const status = task.completed ? "Completed" : "Incomplete";
        console.log(`${index + 1}. ${task.description} (${status})`);
    });
}

// Driver code to check the solution
const tasks = [];


// 1. Add a new tasks to the tasks array using 'addTask' method
addTask(tasks, "Buy groceries");
addTask(tasks, "Go to ballet lesson");


// 2. Mark task "Buy groceries" as completed using 'completeTask' method
completeTask(tasks, 0); // 0-based indexing


// 3. List all the tasks using 'listTasks' method
listTasks(tasks);


// Sample Output:
// Task List:
// 1. Buy groceries (Completed)
// 2. Go to ballet lesson (Incomplete)
```