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const readline = require('readline');

const rl = readline.createInterface({
    input: process.stdin,
    output: process.stdout
});

const MAX_SIZE = 100;

function inputArray(arr, size) {
    console.log(`Enter ${size} elements:`);
    rl.prompt();
    rl.on('line', (input) => {
        const elements = input.split(' ').map(Number);
        for (let i = 0; i < size; i++) {
            arr[i] = elements[i];
        }
        mainMenu(arr, size);
    });
}

function displayArray(arr, size) {
    console.log("Array elements: " + arr.join(' '));
    mainMenu(arr, size);
}

function linearSearch(arr, size, key) {
    let found = false;
    console.log("Linear Search Results:");
    for (let i = 0; i < size; i++) {
        if (arr[i] === key) {
            console.log(`Element ${key} found at index ${i}`);
            found = true;
        }
    }
    if (!found) {
        console.log(`Element ${key} not found in the array.`);
    }
    mainMenu(arr, size);
}

function insertElement(arr, size, element, position) {
    if (size >= MAX_SIZE) {
        console.log("Array is full. Cannot insert more elements.");
        mainMenu(arr, size);
        return;
    }
    if (position < 0 || position > size) {
        console.log("Invalid position for insertion.");
        mainMenu(arr, size);
        return;
    }
    for (let i = size; i > position; i--) {
        arr[i] = arr[i - 1];
    }
    arr[position] = element;
```

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    size++;
    console.log(`Element ${element} inserted at position ${position}.`);
    mainMenu(arr, size);
}

// Define other functions similarly

function mainMenu(arr, size) {
    rl.question("\nMenu:\n1. Display Array\n2. Linear Search\n3. Insert Element\n4. Delete Element\n5. Reverse Array\n6. Update Array (Multiply odd-indexed elements by 2)\n7. Update Array (Add 5 to even-indexed elements)\n0. Exit\nEnter your choice: ", (choice) => {
        choice = parseInt(choice);
        switch (choice) {
            case 1:
                displayArray(arr, size);
                break;
            case 2:
                rl.question("Enter element to search: ", (key) => {
                    linearSearch(arr, size, parseInt(key));
                });
                break;
            case 3:
                rl.question("Enter element to insert: ", (element) => {
                    rl.question("Enter position to insert: ", (position) => {
                        insertElement(arr, size, parseInt(element), parseInt(position));
                    });
                });
                break;
            // Define other cases similarly
            case 0:
                console.log("Exiting program.");
                rl.close();
                break;
            default:
                console.log("Invalid choice! Please enter a number between 0 and 7.");
                mainMenu(arr, size);
        }
    });
}

rl.question("Enter size of the array: ", (size) => {
    size = parseInt(size);
    let arr = new Array(MAX_SIZE).fill(0);
    inputArray(arr, size);
});
```