JavaScript Exercises: Chapters 11-20

This document presents a series of JavaScript exercises designed to reinforce your understanding of fundamental concepts such as comparison operators, conditional statements, arrays, and loops. Each section outlines specific tasks to help you practice and apply your knowledge effectively.

1. Comparison Operators

- Use the `==` operator to compare two numeric inputs and demonstrate equality checking.
- Implement an age verification program using the `>=` operator. Display "Eligible" if the age is 18 or greater; otherwise, display "Not Eligible".

2. If-Else & Nested Conditions

1. Develop a grading system based on user-provided marks:
    a. 80 and above: A
    b. 60-79: B
    c. 40-59: C
    d. Below 40: Fail
2. Create a score evaluation program:
    a. Scores greater than 90: "Excellent"
    b. Scores between 70 and 90 (inclusive): "Good"
    c. Scores less than 70: "Needs Improvement"

3. Arrays

- Initialize an array containing five fruit names. Then, print both the first and last elements of this array to the console.

4. Adding, Removing, Inserting, Extracting Elements

1. Append a new element to an existing array using js method method, then print the modified array.
2. Remove the last element from an array using js method method and then print the altered array.
3. Add an element to the beginning of an array using the appropriate JavaScript method and print the result.
4. Remove the first element of an array using the designated method and display the array's new state.
5. Insert a new element at a specific midpoint within an array using an appropriate method, then print the array to confirm the insertion.
6. Extract a specific element from an array into a newly created array using the relevant JavaScript method and display both arrays.

5. For Loops

1. Use a `for` loop to generate and print the inverse multiplication table of 5 (e.g., 50, 45, ..., 5).
2. Implement a flag variable within a `for` loop to check if a specific number is present in an array. If found, print "Found" and terminate the loop immediately.
3. Write a loop that stops execution when the number 5 is detected, leveraging a suitable JavaScript method to achieve this condition.