

Lesson 2024.12.18 Wed - Java Array Practice

Classwork

Instructions

Solve the following exercises related to arrays. Write down your solutions on paper first and then implement them in your Java development environment.

Exercise 1: Reverse 5 Strings

Write a Java program that:

1. Declares an array of 5 strings.
2. Prompts the user to input 5 strings or hard-code these strings
3. Print the strings in reverse order.

Example Input:

Apple
Banana
Cherry
Date
Elderberry

Example Output:

Elderberry
Date
Cherry
Banana
Apple

Exercise 2: Print Elements at Even Positions

Write a Java program that:

1. Declares an array of **10 integers**.
2. Prompts the user to input 10 integers or hard-code these values
3. Prints the elements that are located at even positions in the array (e.g., indices 1, 3, 5, ...).

Example Input:

10 20 30 40 50 60 70 80 90 100

Example Output:

Elements at even positions:

20
40
60
80
100

Exercise 3: Search for an Element

Write a Java program that:

1. Declares an array of **10 integers**.
2. Prompts the user to input 10 integers or hard-code these values
3. Asks the user to input a number to search for in the array.
4. Outputs whether the number is found or not.

Example Input:

Enter 10 integers:

1 2 3 4 5 6 7 8 9 10

Enter the number to search:

5

Example Output:

The number 5 is found in the array.

Example Input (Number Not Found):

Enter the number to search:

12

Example Output:

The number 12 is NOT found in the array.

Challenge Section (Optional):

1. Modify **Exercise 1** to print the strings both in **original order** and **reverse order**.
 2. Modify **Exercise 2** to print elements at **odd positions** instead of even positions.
 3. For **Exercise 3**, count how many times the searched number appears in the array.
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