DOCUMENTATION

Java Exercise: Value Lookup in a One-Dimensional Array

Project Description

This project is a simple Java program designed to find the presence of a particular value in a specified one-dimensional array. The program prompts the user to enter the value to search for. If the value is found in the array, the program will display the index of its first occurrence. If the value is not found, the program will notify the user that the value is not in the array.

Functionality

- Defines a one-dimensional integer array with initial values.

- Displays the contents of the array to the user.

- Accepts target value input from the user.

- Performs an iteration (loop) to check each element of the array.

- Displays the first index if the value is found.

- Displays a "not found" message if the value does not exist in the array.

How it Works

1. The program initializes an array `int[] array = {5, 10, 15, 20, 25};`.
2. The user is prompted to enter the value to search for.
3. The program searches for the value in the array.
4. If the value is found, the program stops the search and displays the index.
5. If the loop completes and the value is not found, a "not found" message will be displayed.

Project Structure

The project consists of a single Java file:

```
.
└── src/
        └── GanjilGenap.java
└── README.md
```

Usage Example (Console Output)

1. Scenario 1: Value Found

```
Array: 5 10 15 20 25
Masukkan nilai yang ingin dicari: 5
Nilai 5 ditemukan pada indeks: 0
Nilai dalam array yang tidak habis dibagi 0: 5 10 15 20 25
PS C:\Users\Rafly Zulfikar\Latihan 2 Ganjil Genap>
```

2. Scenario 2: Value Not Found

```
Array: 5 10 15 20 25
Masukkan nilai yang ingin dicari: 8
Nilai 8 tidak ditemukan dalam array.
Nilai dalam array yang tidak habis dibagi 0: 5 10 15 20 25
PS C:\Users\Rafly Zulfikar\Latihan 2 Ganjil Genap>
```

How to Run a Project

To run this program, you need to have the Java Development Kit (JDK) installed on your system.

1. Prepare Files

   Make sure the file `GanjilGenap.java` is inside the `src/` folder inside your project directory.

2. Code Compilation

   Open your terminal or command prompt, navigate to the project root directory (`your-project-folder-name/`), then compile the Java file:

   ```bash
    javac src / GanjilGenap.java
    ```

3. Run the Program

   Once successfully compiled, you can run the program:

   ```bash
   java -cp src GanjilGenap
   ```

* Important Notes

- Class Name: The current class name `GanjilGenap.java` does not directly represent the main functionality of the program which focuses on searching for values in arrays. For better clarity, the class name could be considered to be changed to something more descriptive, such as `ArraySearch.java` or `ArrayValueSearch.java`.

- Additional Output: The line `System.out.print("Nilai dalam array yang tidak habis dibagi 0:");` at the end of the `main()` method is not related to the array search functionality requested in the problem. This line may be a leftover from a previous code experiment or a different purpose. To focus on the problem solution, this line can be removed.