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Task 1:

Write a Java program that determines the ticket price for a movie based on the person's age and gives an option to buy popcorn.

Pseudocode:

1. **Start**
2. **Prompt user for age** and store the input in age
3. **Determine ticket price** using an **if-else ladder**:
 - If age < 5, ticketPrice = 0
 - Else if age >= 5 and age <= 12, ticketPrice = 100
 - Else if age >= 13 and age <= 59, ticketPrice = 250
 - Else (age >= 60), ticketPrice = 150
4. **Ask the user if they want popcorn** (yes/no)
5. If the user enters "true", add 100 to ticketPrice
6. **Display the total bill**
7. **End**

Code:

```
import java.util.Scanner;

public class MovieTicketPrice {

    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);

        System.out.print("Enter your age: ");

        int age = scanner.nextInt();
```

```
int ticketPrice;
```

```
if (age < 5) {  
    ticketPrice = 0; // Free ticket  
} else if (age >= 5 && age <= 12) {  
    ticketPrice = 100;  
} else if (age >= 13 && age <= 59) {  
    ticketPrice = 250;  
} else { // age 60+  
    ticketPrice = 150;  
}
```

```
System.out.print("Do you want popcorn? (true/false): ");
```

```
boolean wantsPopcorn = scanner.nextBoolean();
```

```
if (wantsPopcorn) {  
    System.out.println("Popcorn added! An extra 100 Tk has been added.");  
    ticketPrice += 100;  
}
```

```
System.out.println("Your total bill is: " + ticketPrice + " Tk");
```

```
scanner.close();
```

```
}  
}
```

Input / Output:

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS  SPELL CHECKER

Microsoft Windows [Version 10.0.26100.3194]
(c) Microsoft Corporation. All rights reserved.

D:\CodeBlocks\CSE 202>cd "d:\CodeBlocks\CSE 202\" && javac MovieTicketPrice.java && java MovieTicketPrice
Enter your age: 12
Do you want popcorn? (true/false): true
Popcorn added! An extra 100 Tk has been added.
Your total bill is: 200 Tk

d:\CodeBlocks\CSE 202>
```

Task 02:

Write a Java program that prompts the user to enter n , the number of elements in an array. Then, the program should accept n integer inputs, store them in an array, and determine how many of these numbers are even. Finally, it should display the total count of even numbers.

Pseudocode:

1. **Start**
2. **Prompt user for n** , the number of elements in the array.
3. **Create an array** of size n to store the numbers.
4. **Initialize evenCount = 0** to keep track of even numbers.
5. **Loop from 0 to $n-1$:**
 - Read each number and store it in the array.
 - If the number is **even** ($\text{number} \% 2 == 0$), increment evenCount.
6. **Print the total count of even numbers.**
7. **End**

Code:

```
import java.util.Scanner;

public class EvenNumberCounter {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);

        System.out.print("Enter the number of elements: ");
        int n = scanner.nextInt();

        int[] numbers = new int[n];
        int evenCount = 0;

        System.out.println("Enter " + n + " numbers:");
        for (int i = 0; i < n; i++) {
            numbers[i] = scanner.nextInt();
            if (numbers[i] % 2 == 0) {
                evenCount++;
            }
        }

        System.out.println("Even count: " + evenCount);

        scanner.close();
    }
}
```

Input and Output:

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS  SPELL CHECKER

d:\CodeBlocks\CSE 202>cd "d:\CodeBlocks\CSE 202\" && javac EvenNumberCounter.java && java EvenNumberCounter
Enter the number of elements: 5
Enter 5 numbers:
2 8 9 6 3
Even count: 3

d:\CodeBlocks\CSE 202>
```