

Rajalakshmi Engineering College

Name: Nitin Aakash

Email: 240701370@rajalakshmi.edu.in

Roll no: 240701370

Phone: 9498349045

Branch: REC

Department: CSE - Section 8

Batch: 2028

Degree: B.E - CSE

Scan to verify results



2024_28_III_OOPS Using Java Lab

2028_REC_OOPS using Java_Week 7_Q5

Attempt : 1

Total Mark : 10

Marks Obtained : 10

Section 1 : Coding

1. Problem Statement

Raj is curious about how old he is in the current year.

He has asked you to create a simple program that calculates a person's age based on their birth year. You decide to implement this functionality using the AgeCalculator interface and the HumanAgeCalculator class.

Note: The current year is 2024. Calculate the current age by using the formula: current year - birth year.

Input Format

The input consists of an integer representing the birth year.

Output Format

The output displays "You are X years old." where X is an integer representing the calculated age based on the entered birth year.

Refer to the sample output for formatting specifications.

Sample Test Case

Input: 1934

Output: You are 90 years old.

Answer

```
import java.util.Scanner;  
  
import java.util.Scanner;  
  
interface AgeCalculator {  
    int calculateAge(int birthYear);  
}  
  
class HumanAgeCalculator implements AgeCalculator {  
    public int calculateAge(int birthYear) {  
        return 2024 - birthYear;  
    }  
}  
  
public class Main {  
    public static void main(String[] args) {  
        Scanner scanner = new Scanner(System.in);  
        int birthYear = scanner.nextInt();  
        AgeCalculator calculator = new HumanAgeCalculator();  
        int age = calculator.calculateAge(birthYear);  
        System.out.println("You are " + age + " years old.");  
    }  
}  
  
class AgeCalculatorApp {  
    public static void main(String[] args) {  
        Scanner scanner = new Scanner(System.in);  
        AgeCalculator ageCalculator = new HumanAgeCalculator();
```

```
int birthYear = scanner.nextInt();
int age = ageCalculator.calculateAge(birthYear);

System.out.println("You are " + age + " years old.");
}
}
```

Status : Correct

Marks : 10/10