Rajalakshmi Engineering College

Name: mohamed hafiz
Email: 241501115@rajalakshmi.edu.in
Roll no:
Phone: 9342701083
Branch: REC
Department: AI & ML - Section 3
Batch: 2028
Degree: B.E - AI & ML

2024_28_III_OOPS Using Java Lab

2028_REC_OOPS using Java_Week 1_Q2

Attempt : 1
Total Mark : 10
Marks Obtained : 10

Section 1 : Coding

1.   PROBLEM STATEMENT:

Dave got two students who wants help with their doubt. Each handouts an integer and wants to find if one Integer Positive While the Other is Not Divisible by 3. Write a program to achieve this and conclude for them.

Input Format

The first line of input represents the first integer.

The second line of input represents the second integer.

Output Format

The output should display as "One of the integers is positive while the other is not divisible by 3." or "Neither of the integers meets the condition."

Refer to the sample output for the formatting specifications.

Sample Test Case

Input: 4
3

Output: One of the integers is positive while the other is not divisible by 3.

Answer

```java
// You are using Java
import java.util.Scanner;

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

        // Read first integer
        int firstInteger = scanner.nextInt();
        // Read second integer
        int secondInteger = scanner.nextInt();

        // Check the conditions
        boolean isFirstPositive = firstInteger > 0;
        boolean isSecondNotDivisibleBy3 = secondInteger % 3 != 0;
        boolean isSecondPositive = secondInteger > 0;
        boolean isFirstNotDivisibleBy3 = firstInteger % 3 != 0;

        if ((isFirstPositive && isSecondNotDivisibleBy3) || (isSecondPositive &&
isFirstNotDivisibleBy3)) {
            System.out.println("One of the integers is positive while the other is not
divisible by 3.");
        } else {
            System.out.println("Neither of the integers meets the condition.");
        }

        scanner.close();
    }
}
```

Status : Correct   *Marks : 10/10*

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Scan to verify results

2024_28_III_OOPS Using Java Lab

2028_REC_OOPS using Java_Week 1_Q1

Attempt : 1
Total Mark : 10
Marks Obtained : 10

Section 1 : Coding

1.   Problem Statement

Gloria is responsible for monitoring the performance of two machines in a factory. She needs to determine which of the two machines is operating closest to the optimal temperature of 100 degrees Celsius using the relational operator.

Assist Gloria in displaying the machine's temperature, which is closer to 100, and the difference from 100.

Input Format

The first line of input consists of an integer N, representing the temperature of the first machine.

The second line consists of an integer M, representing the temperature of the second machine.

Output Format

The output prints "The integer closer to 100 is X with a difference of Y" where X is the temperature of the closer machine and Y is the difference from 100.

Refer to the sample output for formatting specifications.

Sample Test Case

Input: 90
80
Output: The integer closer to 100 is 90 with a difference of 10

Answer

```java
// You are using Java
import java.util.Scanner;

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

      // Input temperatures of the two machines
      int N = scanner.nextInt(); // Temperature of the first machine
      int M = scanner.nextInt(); // Temperature of the second machine

      // Calculate the difference from 100
      int diffN = Math.abs(100 - N);
      int diffM = Math.abs(100 - M);

      // Determine which temperature is closer to 100
      if (diffN < diffM) {
         System.out.printf("The integer closer to 100 is %d with a difference of %d
%n", N, diffN);
      } else if (diffM < diffN) {
         System.out.printf("The integer closer to 100 is %d with a difference of %d
%n", M, diffM);
      } else {
         // If both are equally close
         System.out.printf("The integer closer to 100 is %d with a difference of %d
%n", N, diffN);
```

```
        }

        scanner.close();
    }
}
```

Status : Correct   *Marks : 10/10*

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2024_28_III_OOPS Using Java Lab

2028_REC_OOPS using Java_Week 1_Q3

Attempt : 1
Total Mark : 10
Marks Obtained : 10

Section 1 : Coding

1. Problem statement

Manoj, a developer at MoneyMatters Inc., is working on improving the company's financial system. He needs to create a program that takes an integer input, converts it into a double, and displays both the original integer and the converted double value.

Input Format

The input consists of a single integer representing a monetary amount.

Output Format

The first line of the output displays the "Original Integer: ", followed by an integer representation of the input value.

The second line displays the "Converted Double: ", followed by a double value representing the input as a decimal value.

Refer to the sample output for the formatting specifications.

Sample Test Case

Input: 20
Output: Original Integer: 20
Converted Double: 20.0

Answer

```java
// You are using Java
import java.util.Scanner;

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

        // Input: Read an integer value
        int number = scanner.nextInt();

        // Convert the integer to double
        double convertedValue = (double) number;

        // Output: Display the original integer and the converted double
        System.out.println("Original Integer: " + number);
        System.out.println("Converted Double: " + convertedValue);

        // Close the scanner
        scanner.close();
    }
}
```

Status : Correct   *Marks : 10/10*