Rajalakshmi Engineering College

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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

```
import java.util.*;
public class Main{
   public static void main(String []args){
      int a,b;
      Scanner in= new Scanner(System.in);
      a=in.nextInt();
      b=in.nextInt();
      if(a==100||b==100)
      System.out.println("The integer closer to 100 is"+a+"with a difference
of"+(100-a));
      if(a<100 && b<100){
         if (a>b){
            System.out.println("The integer closer to 100 is"+a+"with a difference
of"+(100-a));
         }
         else{
            System.out.println("The integer closer to 100 is"+b+"with a difference
of"+(100-b));
         }
      } if(a>100 && b>100){
         if (a<b){
            System.out.println("The integer closer to 100 is"+a+"with a difference
of"+(a-100));
         }
         else{
            System.out.println("The integer closer to 100 is"+b+"with a difference
of"+(b-100));
```

```
        }
      }
      if(a>100 && b<100){
         if((a-100)<(100-b)){
            System.out.println("The integer closer to 100 is"+a+"with a difference
of"+(a-100));
         }
         else{
            System.out.println("The integer closer to 100 is"+b+"with a difference
of"+(100-b));
         }
      }
      if(b>100 && a<100){
         if((b-100)<(100-a)){
            System.out.println("The integer closer to 100 is"+b+"with a difference
of"+(b-100));
         }
         else{
            System.out.println("The integer closer to 100 is"+a+"with a difference
of"+(100-a));
         }
      }

   }
}
```

Status : Correct **Marks : 10/10**