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Java – First Problem Statement

Question

Write main method in the Solution class.

In the main method, read an integer value and print "TRUE" if it contains at least 3 even digits. Else it should print "FALSE".

For example, if the value is 123456 and it contains 3 even digits such as 2,4,6. So it should print "TRUE".

The output should be in the format of sample output.

Sample input1:

123456

Output:

TRUE

Sample input2:

123

Output:

FALSE

Sample code snippet for reference:

Please use below code to build your solution.

```
public class Solution
{

	public static void main(String[] args)
	{
		//code to read values
		//code to display the result
	}

}
```

Solution

```
import java.util.Scanner;

public class Solution {

	public static void main(String[] args) {

		Scanner sc = new Scanner(System.in);
		int count = 0;
```

```
                int no = sc.nextInt();
                while(no>0){
                        int remainder = no%10;
                        if(remainder%2==0){
                                count++;
                        }
                        no = no/10;
                }

                if(count>=3){
                        System.out.println("TRUE");
                }else{
                        System.out.println("FALSE");
                }

        }
}
```

Test cases

Sample input1:

123456

Output:

TRUE

Sample input2:

123

Output:

FALSE

Sample input3:

24680

Output:

TRUE

Sample input4:

135

Output:

FALSE

Java – Second Problem Statement

Question

Create a class Motel with the below attributes:

motelId - int

motelName - String

dateOfBooking – String (in the format dd-mon-yyyy)

noOfRoomsBooked – int

cabFacility – String

totalBill- double

The above attributes should be private, write getters, setters and parameterized constructor as required.

Create class Solution with main method.

Implement one static method – totalNoOfRoomsBooked in Solution class.

totalNoOfRoomsBooked method:

This method will take two input parameter - array of Motel objects and a String parameter.

The method will return the total numbers of rooms booked from array of Motel objects if the cab facility attribute matches with the given String parameter(cab facility) and the number of rooms booked is greater than 5.

If no rooms are booked with the above criteria in the array of Motel objects, then the method should return 0.

Note :

No two Motel object would have the same motelId.

dateOfBooking is stored in the format dd-mon-yyyy(eg. 01-Jan-2022)

The above mentioned static method should be called from the main method.

For totalNoOfRoomsBooked method - The main method should print the total number of booked rooms as it is, if the returned value is greater than 0, else it

should print "No such rooms booked"

Before calling these static methods in main, use Scanner object to read the values of four Motel objects referring attributes in the above mentioned attribute sequence.

Next, read the value of one String parameter for capturing the cab facility.

Consider below sample input and output:

Input1:

1001

M&M

01-Dec-2022

5

Yes

30000

1002

BestStay

10-Jan-2022

3

Yes

27000

1003

Novatel

11-Jun-2022

5

Yes

25000

1004

Chola

01-Sep-2022

7

Yes

72000

Yes

Output1:

7

Input2:

1001

M&M

01-Dec-2022

5

No

30000

1002

BestStay

10-Jan-2022

3

No

27000

1003

Novatel

11-Jun-2022

5

No

25000

1004

Chola

01-Sep-2022

7

No

72000

JUne

Output2:

No such rooms booked

Sample code snippet for reference:

Please use below code to build your Solution.

```
import java.util.Scanner;
public class Solution
{
  public static void main(String[] args)
 {
  //code to read values
  //code to call required method
  //code to display the result
 }

 //code the first method



}

//code the class
```

Note on using Scanner object:

Sometimes scanner does not read the new line character while invoking methods like nextInt(), nextDouble() etc.

Usually, this is not an issue, but this may be visible while calling nextLine() immediately after those methods.

Consider below input values:

1001

Savings

Referring below code:

Scanner sc = new Scanner(System.in);

int x = sc.nextInt();

String str = sc.nextLine(); -> here we expect str to have value Savings.Instead it may be "".

If above issue is observed, then it is suggested to add one more explicit call to nextLine() after reading numeric value.

Solution

```
import java.util.Scanner;

public class Solution {

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

    Motel[] Motel = new Motel[4];

    for(int i=0;i<Motel.length;i++)
    {
       int motelId = sc.nextInt();sc.nextLine();
```

```
        String motelName=sc.nextLine();
        String date = sc.nextLine();
        int noOfRooms = sc.nextInt(); sc.nextLine();
        String cab=sc.nextLine();
        double bill= sc.nextDouble();
        sc.nextLine();

        Motel[i]= new Motel(motelId,motelName,date, noOfRooms,cab,bill);
    }

        String cabFaci = sc.nextLine();

        int nos = totalNoOfRoomsBooked(Motel,cabFaci);
        if(nos>0)
        { System.out.println(nos);
        }
        else {
            System.out.println("No such rooms booked");
        }

}

public static int totalNoOfRoomsBooked(Motel[] motel,String cabFaci)
{
    int count=0;
    for(Motel mo:motel)
    {
        if(mo.getNoOfRoomsBooked()>5 && mo.getCabFacility().equalsIgnoreCase(cabFaci))
        {
```

```
            count = count+ mo.getNoOfRoomsBooked();
          }
        }
        return count;
    }



}


class Motel {


    int motelId;
    String motelName;
    String dateOfBooking;
    int noOfRoomsBooked;
    String cabFacility;
    double totalbill;
        public int getMotelId() {
            return motelId;
        }
        public void setMotelId(int motelId) {
            this.motelId = motelId;
        }
        public String getMotelName() {
            return motelName;
        }
```

```
	public void setMotelName(String motelName) {
		this.motelName = motelName;
	}
	public String getDateOfBooking() {
		return dateOfBooking;
	}
	public void setDateOfBooking(String dateOfBooking) {
		this.dateOfBooking = dateOfBooking;
	}
	public int getNoOfRoomsBooked() {
		return noOfRoomsBooked;
	}
	public void setNoOfRoomsBooked(int noOfRoomsBooked) {
		this.noOfRoomsBooked = noOfRoomsBooked;
	}
	public String getCabFacility() {
		return cabFacility;
	}
	public void setCabFacility(String cabFacility) {
		this.cabFacility = cabFacility;
	}
	public double getTotalbill() {
		return totalbill;
	}
	public void setTotalbill(double totalbill) {
		this.totalbill = totalbill;
	}
	public Motel(int motelId, String motelName, String dateOfBooking, int noOfRoomsBooked,
String cabFacility,
```

```
                    double totalbill) {
            super();
            this.motelId = motelId;
            this.motelName = motelName;
            this.dateOfBooking = dateOfBooking;
            this.noOfRoomsBooked = noOfRoomsBooked;
            this.cabFacility = cabFacility;
            this.totalbill = totalbill;
        }

}
```

Test cases

Testcase1:

Input:

1001

M&M

01-Dec-2022

5

Yes

30000

1002

BestStay

10-Jan-2022

3

Yes

27000

1003

Novatel

11-Jun-2022

5

Yes

25000

1004

Chola

01-Sep-2022

7

Yes

72000

Yes

Output1:

7

Testcase2:

Input:

1001

M&M

01-Dec-2022

5

No

30000

1002

BestStay

10-Jan-2022

3

No

27000

1003

Novatel

11-Jun-2022

5

No

25000

1004

Chola

01-Sep-2022

7

No

72000

JUne

Output:

No such rooms booked

Testcase3:

Input:

1001

M&M

01-Dec-2022

7

Yes

30000

1002

BestStay

10-Jan-2022

3

Yes

27000

1003

Novatel

11-Jun-2022

7

Yes

25000

1004

Chola

01-Sep-2022

7

Yes

72000

Yes

Output:

21

Testcase4:

Input:

1001

M&M

01-Dec-2022

5

Yes

30000

1002

BestStay

10-Jan-2022

3

Yes

27000

1003

Novatel

11-Jun-2022

5

Yes

25000

1004

Chola

01-Sep-2022

10

No

72000

No

Output:

10