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Paper Name :- "DOPS Java Practical

Paper Code :- 'PCC - CS481

Date :- 17/05/2021

Time :- 2:00 - 3:00 PM

Signature :- Shubham Dutta

Answer

```
1.4 import java.util.Scanner

public class LeapCheck {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        int year = sc.nextInt();

        boolean leap = false;

        if (year % 4 == 0) {
            if (year % 100 == 0) {
                if (year % 400 == 0) {
                    leap = true;
                } else {
                    leap = false;
                }
            } else {
                leap = true;
            }
        } else {
            leap = false;
        }

        if (leap) {
            System.out.println(year + " is a leap year")
        } else {
            System.out.println(year + " is not a leap year")
        }
    }
}
```

Problems Javadoc Declaration Console Error Log Tasks Coverage

<terminated> one [Java Application] C:\Program Files\Java\jdk-16.0.1\bin\javaw.exe (May 17, 2021, 4:00:09 PM – 4:00:11 PM)

2000

2000 is a leap year.

```
3.4 public class Count {
```

```
    static void counting (String input) {
```

```
        int upperCase = 0;
```

```
        int lowerCase = 0;
```

```
        int digit = 0;
```

```
        int spaces = 0;
```

```
        for (int i = 0; i < input.length(); i++)
```

```
        { char ch = input.charAt(i)
```

```
          char ch = input.charAt(i);
```

```
          if (Character.isUpperCase(ch)) {
```

```
              upperCase ++;
```

```
          } else if (Character.isLowerCase(ch))
```

```
          {
```

```
              lowerCase ++;
```

```
          } else if (Character.isDigit(ch)) {
```

```
              digits ++;
```

```
          } else if (
```

```
              Character.
```

```
              else if (ch == " ") {
```

```
                  spaces ++;
```

```
          }
```

```
        }
```

```
        System.out.println("Count of Uppercase letter" + upperCase);
```

```
        System.out.println("Count of lowercase letter" + lowerCase);
```

```
System.out.println("Count of Digits" + digit);  
System.out.println("Count of spaces" + space);  
{
```

```
public static void main (String[] args) {  
    counting ("This is my lab Test 2");  
}
```

```
}
```

Count of Upperacase letters: 2

Count of Lowercase letters 13

Count of Digits letters 1

Count of Spaces letters 5

4.4

```
import java.util.Scanner;
```

```
class Time {
```

```
    private int hour, min, sec;
```

```
    Time (int h, int m, int s) {
```

```
        hour = h;
```

```
        min = m;
```

```
        sec = s;
```

```
    }
```

```
    void add (Time t) {
```

```
        int hr = this.hour + t.hour;
```

```
        int min m = this.minhour + t.min;
```

```
        int s = this.sec + t.sec;
```

```
        if (s > 60) {
```

```
            s = s % 60;
```

```
            m += s / 60;
```

```
        }
```

```
        if (m > 60) {
```

```
            m = m % 60;
```

```
            hr += m / 60;
```

```
        }
```

```
System.out.println ("Added is: " + hr +  
min + ":" + m + ":" + s)
```

```
}
```

```
void adjust ( ) {
```

```
    if (sec > 60) {
```

```
        sec = sec % 60;
```

```
        min += sec / 60;
```

```
    }
```

```
        if (min > 60) {
```

```
            min = min % 60;
```

```
            hr += min / 60;
```

```
        }
```

```
    }
```

```
public static void main (String [] args) {
```

```
    Scanner scn = new Scanner (System.in);
```

```
    int hr, min, sec;
```

```
    System.out.println ("Enter 1st Time:");
```

```
    hr = scn scn.nextInt();
```

```
    min = scn.nextInt();
```

```
    sec = scn.nextInt();
```

```
    Time t1 = new Time (hr, min, sec);
```

```
    t1.adjust ();
```

```
    System.out.println ("Enter 2nd Time:");
```

```
    hr = scn scn.nextInt();
```

```
    min = scn.nextInt();
```

```
    sec = scn.nextInt();
```

```
    Time t2 = new Time (hr, min, sec);
```

```
    t2.adjust ();
```


t1.add(t2);

3

3

<terminated> four [Java Application] C:\Program Files\Java\jdk-16.0.1\bin\javaw.exe (May 17, 2021, 4:24:12 PM – 4:24:24 PM)

enter the 1st time

4 5 60

enter the 2nd time

1 0 0

the added is:5:5:60

2. An

```
interface InterF {
```

```
    int a = 20;
```

```
    int b = 20;
```

```
    void add();
```

```
    void sub();
```

```
}
```

```
class Time Overload implements InterF {
```

```
    public void add() {
```

```
        System.out.println("Addition of  
+ " + a + " + " + b + " is " + (a+b));
```

```
}
```

```
    public void sub() {
```

```
        System.out.println("Subtraction of  
+ " + a + " - " + b + " is " + (a-b));
```

```
}
```

```
public static void main (String [] args).
```

```
{
```

```
    Overload obj = new Overload();
```

```
    obj.add();
```

```
    obj.sub();
```

```
}
```

```
}
```

Addition of 70 and 20 is: 90

Subtraction of 70 and 20 is: 50