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19BCE0382

LAB CAT 2 JAVA (29-04-2021)

Q4 Write a class TouristSpot that has the data members; name of tourist spot, state in which it lies. Create an array list of n places and write a function that takes array list as an argument to identify a state that has more than one tourist spot.

CODE:

```java
import java.util.*;
class TouristSpot
{
    String name;
    String state;
    TouristSpot(String n, String s)
    {
        name=n;
        state=s;
    }
}
public class cat2
{
    public static void CountState(ArrayList l)
    {
        System.out.println("States with more than 1 Tourist Spots:");
        Iterator ai = l.iterator();
        ArrayList<String> temp = new ArrayList<String>();
        while (ai.hasNext())
        {
            TouristSpot st = (TouristSpot)ai.next();
            temp.add(st.state);
        }

        Map<String, Integer> map = new LinkedHashMap<String, Integer>();
        for (int i = 0; i < temp.size(); i++) {
            try {
                map.put(temp.get(i), map.get(temp.get(i)) + 1);
            }
            catch (Exception e) {
                map.put(temp.get(i), 1);
            }
        }
        System.out.println("\n");
        for (Map.Entry<String, Integer> e : map.entrySet()) {
            if (e.getValue() > 1) {
                System.out.print(e.getKey() + ", ");
```

P.T.O

D:\sem4\C-Java\LAB\cat2\cat2.java - Notepad++

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cat2.java

```
37                      System.out.print(e.getKey() + ", ");
38                  }
39              }
40
41          }
42      public static void main(String args[])
43      {
44          Scanner sc = new Scanner(System.in);
45          ArrayList<TouristSpot> destination = new ArrayList<TouristSpot>();
46          System.out.println("Enter the no.of Destinations");
47          int n = sc.nextInt();
48          TouristSpot obj[] = new TouristSpot[n];
49          for(int i=0; i<n; i++)
50          {
51              System.out.println("Enter Name of Place then State: "+(i+1));
52              String na = sc.next();
53              String s = sc.next();
54              obj[i] = new TouristSpot(na,s);
55              destination.add(obj[i]);
56          }
57          CountState(destination);
58      }
59  }
```

CODE IN TEXT FORMAT:

```
import java.util.*;

class TouristSpot
{
        String name;

        String state;

        TouristSpot(String n, String s)
        {
                name=n;

                state=s;
        }
}

public class cat2
{
        public static void CountState(ArrayList l)
        {
                System.out.println("States with more than 1 Tourist Spots:");
```

```java
                Iterator ai = l.iterator();

                ArrayList<String> temp = new ArrayList<String>();

                while (ai.hasNext())

                {

                        TouristSpot st = (TouristSpot)ai.next();

                        temp.add(st.state);

                }


                Map<String, Integer> map = new LinkedHashMap<String, Integer>();
for (int i = 0; i < temp.size(); i++) {
   try {
      map.put(temp.get(i), map.get(temp.get(i)) + 1);
   }
   catch (Exception e) {
      map.put(temp.get(i), 1);
   }
}
                System.out.println("\n");
for (Map.Entry<String, Integer> e : map.entrySet()) {
   if (e.getValue() > 1) {
      System.out.print(e.getKey() + ", ");
   }
}


    }
    public static void main(String args[])

    {

                Scanner sc = new Scanner(System.in);

                ArrayList<TouristSpot> destination = new ArrayList<TouristSpot>();

                System.out.println("Enter the no.of Destinations");

                int n = sc.nextInt();

                TouristSpot obj[] = new TouristSpot[n];

                for(int i=0; i<n; i++)

                {

                        System.out.println("Enter Name of Place then State: "+(i+1));

                        String na = sc.next();
```

```
                String s = sc.next();

                obj[i] = new TouristSpot(na,s);

                destination.add(obj[i]);

            }

            CountState(destination);

        }

}
```

OUTPUT:

```
Command Prompt

D:\sem4\C-Java\LAB\cat2>javac cat2.java

D:\sem4\C-Java\LAB\cat2>java cat2
Enter the no.of Destinations
6
Enter Name of Place then State: 1
Fort
Rajasthan
Enter Name of Place then State: 2
CityPalace
Rajasthan
Enter Name of Place then State: 3
TajMahal
UP
Enter Name of Place then State: 4
IndiaGate
Delhi
Enter Name of Place then State: 5
QutubMinar
Delhi
Enter Name of Place then State: 6
GoldenTemple
Punjab
States with more than 1 Tourist Spots:

Rajasthan, Delhi,
D:\sem4\C-Java\LAB\cat2>
```

No. of States with more than one tourist spot printed in last line as shown in above screenshot