

```

1 import java.text.DecimalFormat;
2
3 public class City
4 {
5     private String stageID,name,district,hotelName;
6     private double cost;
7     private Item[] itemArr = null;
8     private static final double EXCHANGE_R = 15.80;
9     private DecimalFormat two = new DecimalFormat("0.00");
10
11     private String abbreviate(String d)
12     {
13         String details = "";
14         if(d.contains("-"))
15         {
16             int pos = 0;
17             for(int i = 0; i < d.length(); i++)
18             {
19                 if(d.charAt(i) == '-')
20                     pos = i;
21             }
22             details += ""+d.charAt(0) + d.charAt(pos+1) +
d.charAt(pos+2);
23         }
24         else
25             details += d.substring(0,3);
26
27         return details.toUpperCase();
28     }
29
30     public City(String id,String n,String d,String h,double c)
31     {
32         stageID = id;
33         name = n;
34         district = abbreviate(d);
35         hotelName = h;
36         cost = c;
37     }
38
39     public void setItemArr(Item[] itemArr)
40     {
41         this.itemArr = itemArr;
42     }
43
44     public String getStageID()
45     {
46         return stageID;
47     }
48
49     public double getCost()
50     {
51         return cost;
52     }
53
54     public String returnItemArray() //Helper method. This code
could of course be in the toString itself.
55     {
56         String details = "";
57         for(int i = 0; i < itemArr.length; i++)

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58         details += itemArr[i].toString()+"\n";
59     return details;
60 }
61
62     public double totalCost() //Helper method. This code could of
course be in the toString itself.
63     {
64         double c = cost;
65         for(int i = 0; i < itemArr.length; i++)
66             c += itemArr[i].getValue();
67         return Double.parseDouble(two.format(c * EXCHANGE_R)); //The
correct decimal format is not technically but it looks neater.
68     }
69
70     public String toString()
71     {
72         if(itemArr == null) //Not technically required if we assume
each city will have at least 1 item.
73             return name+" (" +abbreviate(district)+")\n"+hotelName
+" \t"+cost+" euro\n";
74         else
75             return name+" (" +abbreviate(district)+")\n"+hotelName
+" \t"+cost+" euro\n"+returnItemArray()+"\nTotal Cost per Day:
R"+totalCost()+"\n";
76     }
77
78 }
79

```