

TacoManager.java

```

1 /*
2  * Written by JJ Shepherd
3  */
4 import java.util.Scanner;
5 import java.io.*;
6 public class TacoManager
7 {
8     private Taco[] tacos;
9     public static final int DEF_SIZE = 10;
10    public static final String DELIM = "\t";
11    public static final int BODY_FIELD_AMT = 3;
12    public static final int HEADER_FIELD_AMT = 2;
13
14    public TacoManager()
15    {
16        init(DEF_SIZE);
17    }
18    public TacoManager(int size)
19    {
20        init(size);
21    }
22    public void init(int size)
23    {
24        if(size >= 1)
25            tacos = new Taco[size];
26        else
27            tacos = new Taco[DEF_SIZE];
28    }
29    public void addTaco(Taco aTaco)
30    {
31        if(tacos[tacos.length-1] != null)
32            return;
33        for(int i=0;i<tacos.length;i++)
34        {
35            if(tacos[i] == null)
36            {
37                tacos[i] = aTaco;
38                break;
39            }
40        }
41        this.sortTacos();
42    }
43    public void removeTaco(String aName)
44    {
45        int removeIndex = -1;
46        for(int i=0;i<tacos.length;i++)
47        {
48            if(tacos[i] != null && tacos[i].getName().equals(aName))
49            {
50                removeIndex = i;
51                break;
52            }
53        }
54        if(removeIndex == -1)
55            return;
56        else
57        {

```

TacoManager.java

```

58         for(int i=removeIndex;i<tacos.length-1;i++)
59             tacos[i] = tacos[i+1];
60         tacos[tacos.length-1] = null;
61     }
62 }
63 private void sortTacos()
64 {
65     //Using Bubble Sort
66     boolean swapped = true;
67     while(swapped == true)
68     {
69         swapped = false;
70         for(int i=0;i<tacos.length-1;i++)
71         {
72             if(tacos[i+1]==null)
73             {
74                 break;
75             }
76             if(tacos[i].getPrice()>tacos[i+1].getPrice())//Out of order swap!
77             {
78                 Taco temp = tacos[i];
79                 tacos[i] = tacos[i+1];
80                 tacos[i+1] = temp;
81                 swapped = true;
82             }
83         }
84     }
85 }
86 public void writeTacoFile(String aName)
87 {
88     try
89     {
90         PrintWriter fileWriter = new PrintWriter(new FileOutputStream(aName));
91         //Header
92         fileWriter.println("Taco Amt:"+DELIM+tacos.length);
93         //Body
94         for(Taco taco : tacos)
95         {
96             if(taco == null)
97                 break;
98             fileWriter.println(taco.getName()+DELIM+taco.getLocation()+DELIM+taco.getPrice
99             ());
100         }
101         fileWriter.close();
102     }
103     catch(Exception e)
104     {
105         e.printStackTrace();
106     }
107 }
108 public void readTacoFile(String aName)
109 {
110     try
111     {
112         Scanner fileScanner = new Scanner(new File(aName));
113         //Read the header
114         String fileLine = fileScanner.nextLine();

```

TacoManager.java

```

114     String[] splitLines = fileLine.split(DELIM);
115     if(splitLines.length == HEADER_FIELD_AMT)
116     {
117         int size = Integer.parseInt(splitLines[1]);
118         init(size);
119     }
120     else
121         return;
122     //Read the body
123     while(fileScanner.hasNextLine())
124     {
125         fileLine = fileScanner.nextLine();
126         splitLines = fileLine.split(DELIM);
127         if(splitLines.length == BODY_FIELD_AMT)
128         {
129             String name = splitLines[0];
130             String location = splitLines[1];
131             double price = Double.parseDouble(splitLines[2]);
132             Taco aTaco = new Taco(name,location,price);
133             this.addTaco(aTaco);
134         }
135     }
136     fileScanner.close();
137 }
138 catch(Exception e)
139 {
140     e.printStackTrace();
141 }
142 }
143 public void printTacos()
144 {
145     for(Taco taco : tacos)
146     {
147         if(taco == null)
148             break;
149         System.out.println(taco);
150     }
151 }
152 }
153

```