

ArrayListDemol.java

```
1 import java.util.ArrayList;
2 import java.util.Scanner;
3
4
5 class Friend
6 {
7     // properties
8     private String myFirstName;
9     private String myLastName;
10
11     // constructors
12     public Friend(String firstName, String lastName)
13     {
14         myFirstName = firstName;
15         myLastName = lastName;
16     }
17
18     // accessor methods
19     public String getFirstName()
20     {
21         return myFirstName;
22     }
23
24     public String getLastName()
25     {
26         return myLastName;
27     }
28
29     // interesting methods
30     public String toString()
31     {
32         return myFirstName + " " + myLastName;
33     }
34
35 }
36
37 // *****
38
39 class Friends
40 {
41     // properties
42     private ArrayList<Friend> myFriends;
43
44     // constructors
45     public Friends()
46     {
47         myFriends = new ArrayList<Friend>();
48     }
49
50     // modifier methods
51     public void setFriends(ArrayList<Friend> friendsList)
52     {
53         myFriends = friendsList;
54     }
55
56     // accessor methods
57     public ArrayList<Friend> getFriends()
58     {
59         return myFriends;
```

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```
60     }
61
62     // interesting methods
63     public void addFriend(String firstName, String lastName)
64     {
65         myFriends.add(new Friend(firstName, lastName));
66     }
67
68     public void displayFriends ()
69     {
70
71         for (Friend x : myFriends)
72         {
73             System.out.println(x);
74         }
75
76     }
77
78     public int countFriends ()
79     {
80         return myFriends.size();
81     }
82
83     public boolean findFriend(String firstName, String lastName)
84     {
85         for (Friend x : myFriends)
86         {
87             if (x.getFirstName().equals(firstName) &&
88                 x.getLastName().equals(lastName))
89             {
90                 return true;
91             }
92
93             return false;
94         }
95
96     public Friend findFriendWithLongestLastName ()
97     {
98         int maxLength = myFriends.get(0).getLastName().length();
99         Friend friendWithLongestLastName = myFriends.get(0);
100
101         for (int i = 0; i < myFriends.size(); i++)
102         {
103             if (myFriends.get(i).getLastName().length() > maxLength)
104             {
105                 maxLength = myFriends.get(i).getLastName().length();
106                 friendWithLongestLastName = myFriends.get(i);
107             }
108         }
109
110         return friendWithLongestLastName;
111     }
112
113 }
114
115 // CLIENT PROGRAM *****
116
117 public class ArrayListDemol
```

ArrayListDemol.java

```
118 {
119     public static void main(String[] args)
120     {
121         Friends homies = new Friends();
122         homies.addFriend("Jill", "Sampson");
123         homies.addFriend("Mary", "Roberts");
124         homies.displayFriends();
125
126         Scanner keyboard = new Scanner(System.in);
127         System.out.print("Enter your friend's first name: ");
128         String firstName = keyboard.next();
129         System.out.print("Enter your friend's last name: ");
130         String lastName = keyboard.next();
131
132         if (homies.findFriend(firstName, lastName))
133         {
134             System.out.println(firstName + " " + lastName + " was found");
135         }
136         else
137         {
138             System.out.println(firstName + " " + lastName + " was not found");
139         }
140
141         System.out.println(homies.findFriendWithLongestLastName());
142     }
143 }
```