

```
1: // J.J. Collins
2: // CS4125 / CS5721
3:
4: // Example of composition
5: // Intent: a person owns zero or more addresses.
6:
7: import java.util.*;
8: /*****
9: interface I_Address
10: {
11:     public void display_tel_no();
12: }
13: *****/
14: class address implements I_Address
15: {
16:     private int tel;
17:
18:     public address(int t) {tel = t;}
19:     public void display_tel_no() { System.out.println(" Prog 8: Telephone number is
        : " + tel);}
20: }
21: /*****
22: interface I_Person
23: {
24:     public void show_tel();
25: }
26: *****/
27: class person implements I_Person
28: {
29:
30:     private List<I_Address> a = new ArrayList<I_Address>();
31:
32:     // would create addresses dynamically in real world
33:     // static creation here for demo purposes
34:     private I_Address home = new address(1234);
35:     private I_Address work = new address(3456);
36:
37:
38:     public person() { a.add(home); a.add(work); }
39:     public void show_tel() {
40:         for (Iterator<I_Address> it = a.iterator(); it.hasNext(); )
41:             it.next().display_tel_no();
42:     }
43: }
44: /*****
45: class container {
46:
47:     public static void main(String args[]) {
48:
49:         I_Person p = new person();
50:         p.show_tel();
51:     }
52: }
53: }
54: /*****
55:
```