

```
1  import java.util.*;
2
3  public class Menu
4  {
5      String options[];
6      Scanner scan = new Scanner(System.in);
7      String title;
8      Type type;
9
10     public enum Type
11     {
12         FULL, SELECTION;
13     }
14
15     public Menu(String title, String options[], Type type)
16     {
17         this.options = options;
18         this.title = title;
19         this.type = type;
20     }
21
22     public void display()
23     {
24         if(type == Type.FULL)
25         {
26             displayFull();
27         }
28         else if(type == Type.SELECTION)
29         {
30             displaySelection();
31         }
32     }
33
34     public void displayFull()
35     {
36         System.out.println("\n***** " + title
37             + " *****\n");
38
39         // Print each menu option
40         for(int i = 0; i < options.length; i++)
41         {
42             System.out.println(String.format("%-24s%5d", options[i], i + 1));
43         }
44         System.out.println(String.format("%-24s%5d", "Exit", 0));
45
46         // Print asterisks to make bottom line length equal to top
47         System.out.println(new String(new char[32 + title.length()])
48             .replace("\0", "*"));
49         System.out.print("Your choice: ");
50     }
51
52     public void displaySelection()
53     {
54         System.out.println("\n" + title);
55
56         // Print each menu option
57         for(int i = 0; i < options.length; i++)
```

```
58         {
59             System.out.println(" " + (i + 1) + " - " + options[i]);
60         }
61         System.out.println("0 - Exit");
62
63         System.out.print("\nYour choice: ");
64     }
65
66     public int getResponse()
67     {
68         int num = -1;
69         do
70         {
71             display();
72             String s;
73             try
74             {
75                 s = scan.nextLine();
76                 num = Integer.parseInt(s);
77             }
78             catch(NumberFormatException e)
79             {
80                 continue;
81             }
82         } while(num < 0 || num > options.length);
83         return num;
84     }
85 }
86
```