

```
1 package murach.cart;
2
3 import java.io.*;
4
11
12 public class CartServlet extends HttpServlet {
13
14     @Override
15     protected void doPost(HttpServletRequest request,
16                           HttpServletResponse response)
17         throws ServletException, IOException {
18
19         String url = "/index.jsp";
20         ServletContext sc = getServletContext();
21
22         // get current action
23         String action = request.getParameter("action");
24         if (action == null) {
25             action = "cart"; // default action
26         }
27
28         // perform action and set URL to appropriate page
29         if (action.equals("shop")) {
30             url = "/index.jsp"; // the "index" page
31         }
32         else if (action.equals("cart")) {
33             String productCode = request.getParameter("productCode");
34             String quantityString = request.getParameter("quantity");
35
36             HttpSession session = request.getSession();
37             Cart cart = (Cart) session.getAttribute("cart");
38             if (cart == null) {
39                 cart = new Cart();
40             }
41
42             //if the user enters a negative or invalid quantity,
43             //the quantity is automatically reset to 1.
44             int quantity;
45             try {
46                 quantity = Integer.parseInt(quantityString);
47                 if (quantity < 0) {
48                     quantity = 1;
49                 }
50             } catch (NumberFormatException nfe) {
51                 quantity = 1;
52             }
53
54             String path = sc.getRealPath("/WEB-INF/products.txt");
55             Product product = ProductIO.getProduct(productCode, path);
56
57             LineItem lineItem = new LineItem();
58             lineItem.setProduct(product);
59             lineItem.setQuantity(quantity);
60             if (quantity > 0) {
61                 cart.addItem(lineItem);
62             } else if (quantity == 0) {
63                 cart.removeItem(lineItem);
64             }
65
66             session.setAttribute("cart", cart);
67             url = "/cart.jsp";
68         }
69         else if (action.equals("checkout")) {
```

```
70         url = "/checkout.jsp";
71     }
72
73     sc.getRequestDispatcher(url)
74         .forward(request, response);
75 }
76 }
```