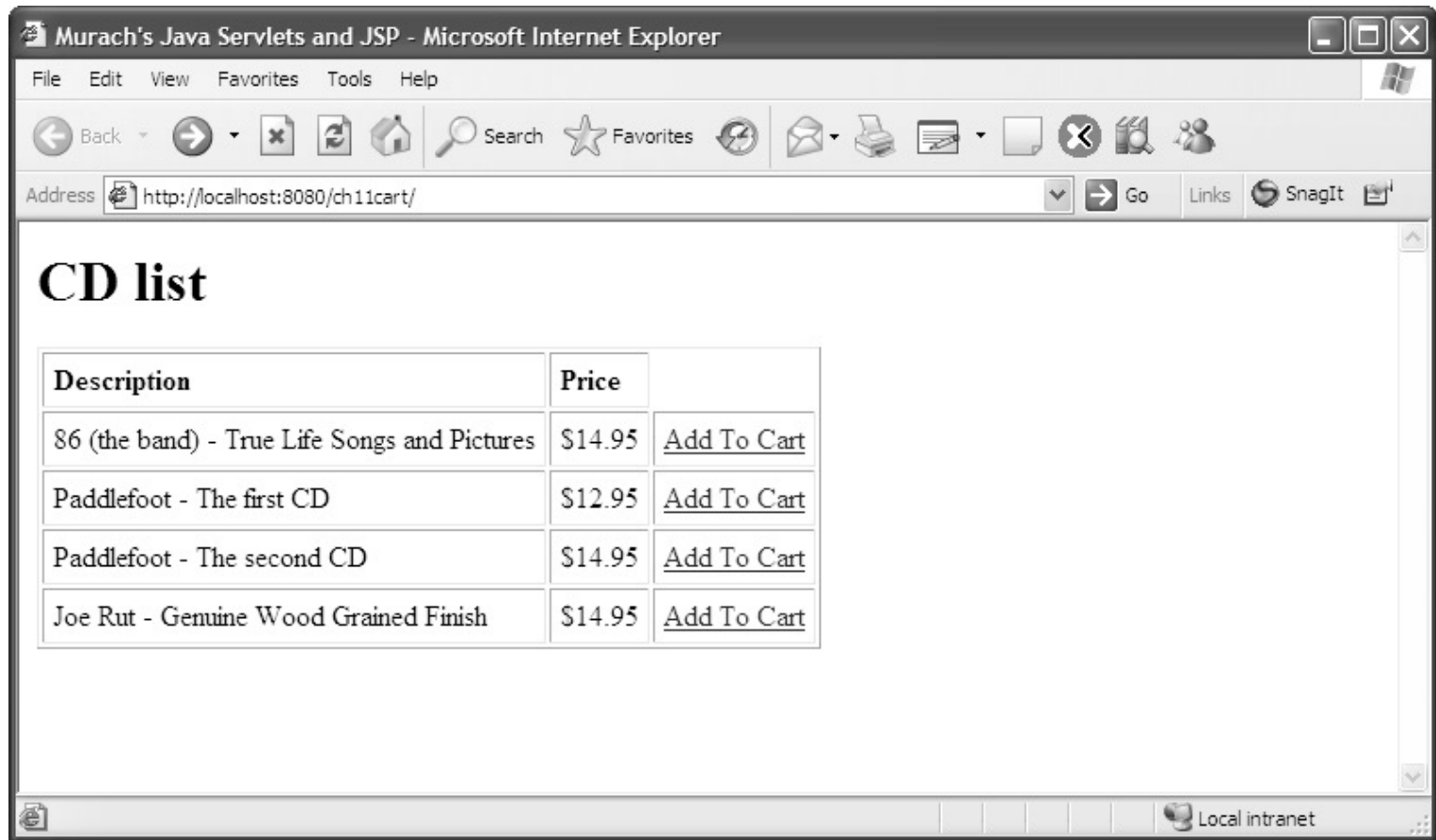
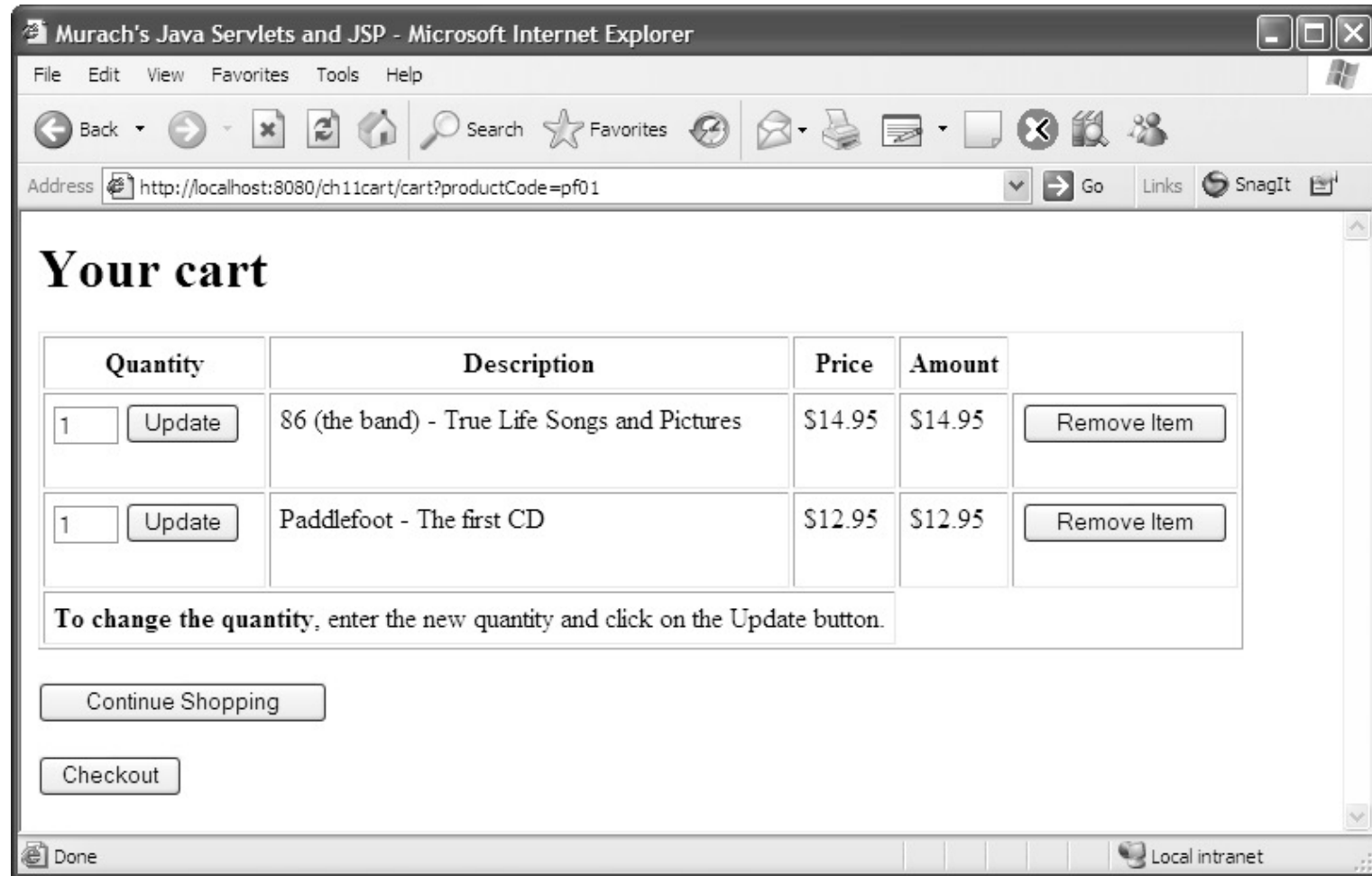


The Index page



The Cart page



The code for the Product class

```
package business;

import java.io.Serializable;
import java.text.NumberFormat;

public class Product implements Serializable
{
    private String code;
    private String description;
    private double price;

    public Product()
    {
        code = "";
        description = "";
        price = 0;
    }
}
```

The code for the Product class (cont.)

```
public void setCode(String code)
{
    this.code = code;
}

public String getCode()
{
    return code;
}

public void setDescription(String description)
{
    this.description = description;
}

public String getDescription()
{
    return description;
}
```

The code for the Product class (cont.)

```
public void setPrice(double price)
{
    this.price = price;
}

public double getPrice()
{
    return price;
}

public String getPriceCurrencyFormat()
{
    NumberFormat currency =
        NumberFormat.getCurrencyInstance();
    return currency.format(price);
}
}
```

The code for the LineItem class

```
package business;

import java.io.Serializable;
import java.text.NumberFormat;

public class LineItem implements Serializable
{
    private Product product;
    private int quantity;

    public LineItem() {}

    public void setProduct(Product p)
    {
        product = p;
    }

    public Product getProduct()
    {
        return product;
    }
}
```

The code for the LineItem class (cont.)

```
public void setQuantity(int quantity)
{
    this.quantity = quantity;
}

public int getQuantity()
{
    return quantity;
}

public double getTotal()
{
    double total = product.getPrice() * quantity;
    return total;
}
```

The code for the Lineltem class (cont.)

```
public String getTotalCurrencyFormat()  
{  
    NumberFormat currency =  
        NumberFormat.getCurrencyInstance();  
    return currency.format(this.getTotal());  
}
```


The code for the Cart class

```
package business;

import java.io.Serializable;
import java.util.ArrayList;

public class Cart implements Serializable
{
    private ArrayList<LineItem> items;

    public Cart()
    {
        items = new ArrayList<LineItem>();
    }

    public ArrayList<LineItem> getItems()
    {
        return items;
    }
}
```

The code for the Cart class (cont.)

```
public int getCount()
{
    return items.size();
}

public void addItem(LineItem item)
{
    String code = item.getProduct().getCode();
    int quantity = item.getQuantity();
    for (int i = 0; i < items.size(); i++)
    {
        LineItem lineItem = items.get(i);
        if (lineItem.getProduct().getCode().equals(code)
        {
            lineItem.setQuantity(quantity);
            return;
        }
    }
    items.add(item);
}
```

The code for the Cart class (cont.)

```
public void removeItem(LineItem item)
{
    String code = item.getProduct().getCode();
    for (int i = 0; i < items.size(); i++)
    {
        LineItem lineItem = items.get(i);
        if (lineItem.getProduct().getCode().equals(code)
        {
            items.remove(i);
            return;
        }
    }
}
```

The code for the index.jsp file

```
<!doctype html public "-//W3C//DTD HTML 4.0  
Transitional//EN">  
  
<html>  
<head>  
    <title>Murach's Java Servlets and JSP</title>  
</head>  
<body>  
  
    <%@ taglib prefix="c"  
        uri="http://java.sun.com/jsp/jstl/core" %>  
  
    <h1>CD list</h1>  
  
    <table cellpadding="5" border=1>  
  
        <tr valign="bottom">  
            <td align="left"><b>Description</b></td>  
            <td align="left"><b>Price</b></td>  
            <td align="left"></td>  
        </tr>
```

The code for the index.jsp file (cont.)

```
<tr valign="top">
  <td>86 (the band) - True Life Songs and Pictures</td>
  <td>$14.95</td>
  <td><a href="<c:url value='/cart?productCode=8601' />">
    Add To Cart</a></td>
</tr>

<tr valign="top">
  <td>Paddlefoot - The first CD</td>
  <td>$12.95</td>
  <td><a href="<c:url value='/cart?productCode=pf01' />">
    Add To Cart</a></td>
</tr>

<tr valign="top">
  <td>Paddlefoot - The second CD</td>
  <td>$14.95</td>
  <td><a href="<c:url value='/cart?productCode=pf02' />">
    Add To Cart</a></td>
</tr>
```

The code for the index.jsp file (cont.)

```
<tr valign="top">
  <td>Joe Rut - Genuine Wood Grained Finish</td>
  <td>$14.95</td>
  <td><a href="<c:url value='/cart?productCode=jr01' />">
    Add To Cart</a></td>
</tr>

</table>

</body>
</html>
```

The code for the CartServlet class

```
package cart;

import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;

import business.*;
import data.*;

public class CartServlet extends HttpServlet
{
    protected void doGet(HttpServletRequest request,
                          HttpServletResponse response)
        throws ServletException,
        IOException
    {
        String productCode =
            request.getParameter("productCode");
        String quantityString =
            request.getParameter("quantity");
    }
}
```

The code for the CartServlet class (cont.)

```
HttpSession session = request.getSession();
Cart cart = (Cart) session.getAttribute("cart");
if (cart == null)
    cart = new Cart();

int quantity = 1;
try
{
    quantity = Integer.parseInt(quantityString);
    if (quantity < 0)
        quantity = 1;
}
catch (NumberFormatException nfe)
{
    quantity = 1;
}
```


The code for the CartServlet class (cont.)

```
ServletContext sc = getServletContext();
String path =
    sc.getRealPath("WEB-INF/products.txt");
Product product =
    ProductIO.getProduct(productCode, path);

LineItem lineItem = new LineItem();
lineItem.setProduct(product);
lineItem.setQuantity(quantity);
if (quantity > 0)
    cart.addItem(lineItem);
else if (quantity == 0)
    cart.removeItem(lineItem);

session.setAttribute("cart", cart);
String url = "/cart.jsp";
RequestDispatcher dispatcher =
    getServletContext().getRequestDispatcher(url);
dispatcher.forward(request, response);
}
}
```

The code for the cart.jsp file

```
<!doctype html public
"-//W3C//DTD HTML 4.0 Transitional//EN">

<html>
<head>
    <title>Murach's Java Servlets and JSP</title>
</head>
<body>

<h1>Your cart</h1>

<table border="1" cellpadding="5">
    <tr>
        <th>Quantity</th>
        <th>Description</th>
        <th>Price</th>
        <th>Amount</th>
    </tr>
```

The code for the cart.jsp file (cont.)

```
<%@ taglib prefix="c"
        uri="http://java.sun.com/jsp/jstl/core" %>
<c:forEach var="item" items="${cart.items}">

    <tr valign="top">
        <td>
            <form action="<c:url value='/cart' />">
                <input type="hidden" name="productCode"
                    value="${item.product.code}">
                <input type="text" size=2 name="quantity"
                    value="${item.quantity}">
                <input type="submit" value="Update">
            </form>
        </td>
        <td>${item.product.description}</td>
        <td>${item.product.priceCurrencyFormat}</td>
        <td>${item.totalCurrencyFormat}</td>
    </tr>
</c:forEach>
```

The code for the cart.jsp file (cont.)

```
<td>
  <form action="<c:url value='/cart' />">
    <input type="hidden" name="productCode"
      value="${item.product.code}">
    <input type="hidden" name="quantity"
      value="0">
    <input type="submit" value="Remove Item">
  </form>
</td>
</tr>

</c:forEach>

<tr>
  <td colspan="3">
    <p><b>To change the quantity</b>, enter the new
      quantity and click on the Update button.</p>
  </td>
</tr>

</table>
```

The code for the cart.jsp file (cont.)

```
<br>
```

```
<form action="<c:url value='/index.jsp' />" method="post">  
  <input type="submit" value="Continue Shopping">  
</form>
```

```
<form action="<c:url value='/checkout.jsp' />"  
  method="post">  
  <input type="submit" value="Checkout">  
</form>
```

```
</body>  
</html>
```