ASSIGNMENT#2 – Shopping Cart Application

Due Date: TBD

Purpose: The purpose of this Lab assignment is to:

- Develop a Web Application using JEE and the MVC pattern
- Use Servlets, JSPs, EL and JSTL
- Develop a JEE Application in Eclipse
- Deploy Run it on a Java EE App Server (JBoss WildFly App Server)

Required: Follow the MVC and DAO patterns. Do NOT use Java scriptlets in your JSP pages unless absolutely necessary. Use the EL and the JSTL.

References: The course notes, how-to-docs, additional reading materials and the slides, or your favorite Java EE book that covers Servlets and JSPs. Useful code fragments can be borrowed from the examples that are on eCentennial or lab practices you have worked on in class.

Exercise #1: Data Persistence (simulated)

Store at least the following information about each product in a Java Collection:

- SKU
- Description
- Number in stock
- Unit Price
- One attribute of your choice

Make sure this is done in a DAO (Data Access Object). In future assignments, we'll change that to use a real database.

Create at least 5 sample products.

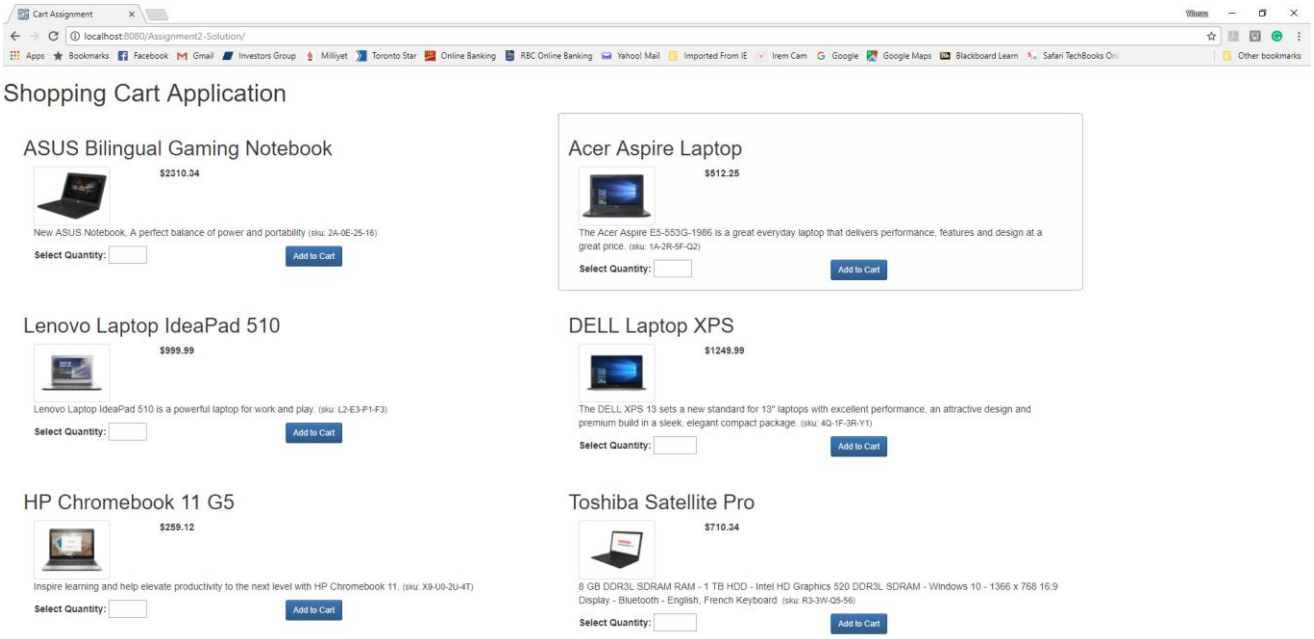
Exercise #2: Navigation

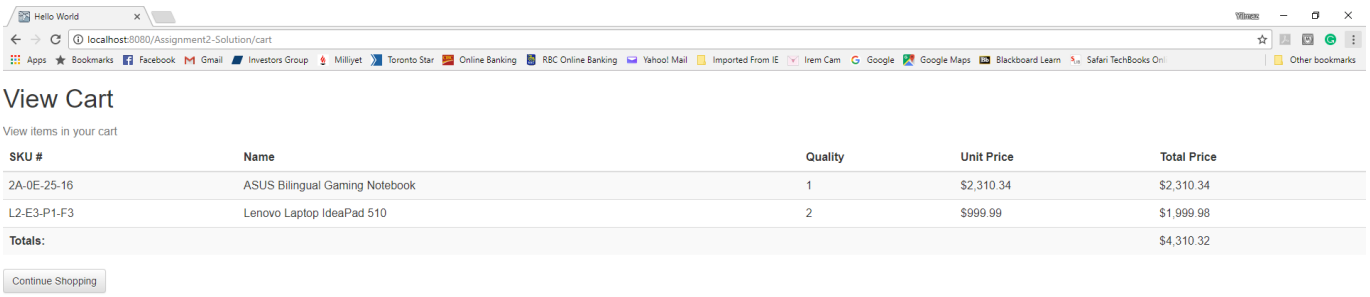
The first page of your application should show the list of products and:

- A way to indicate the desired quantity of each product
- A button to add the selected items (non-zero quantity) to the cart

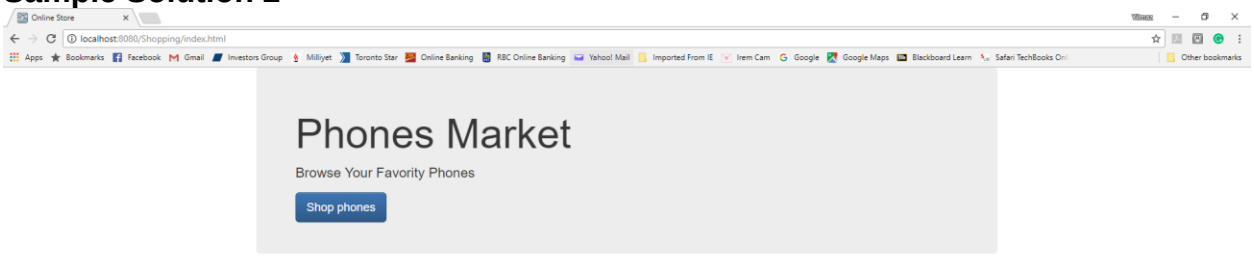
After pressing the button the user should be shown a page with the cart contents including quantity, unit price and total price per line and for the whole order. And a continue shopping button.

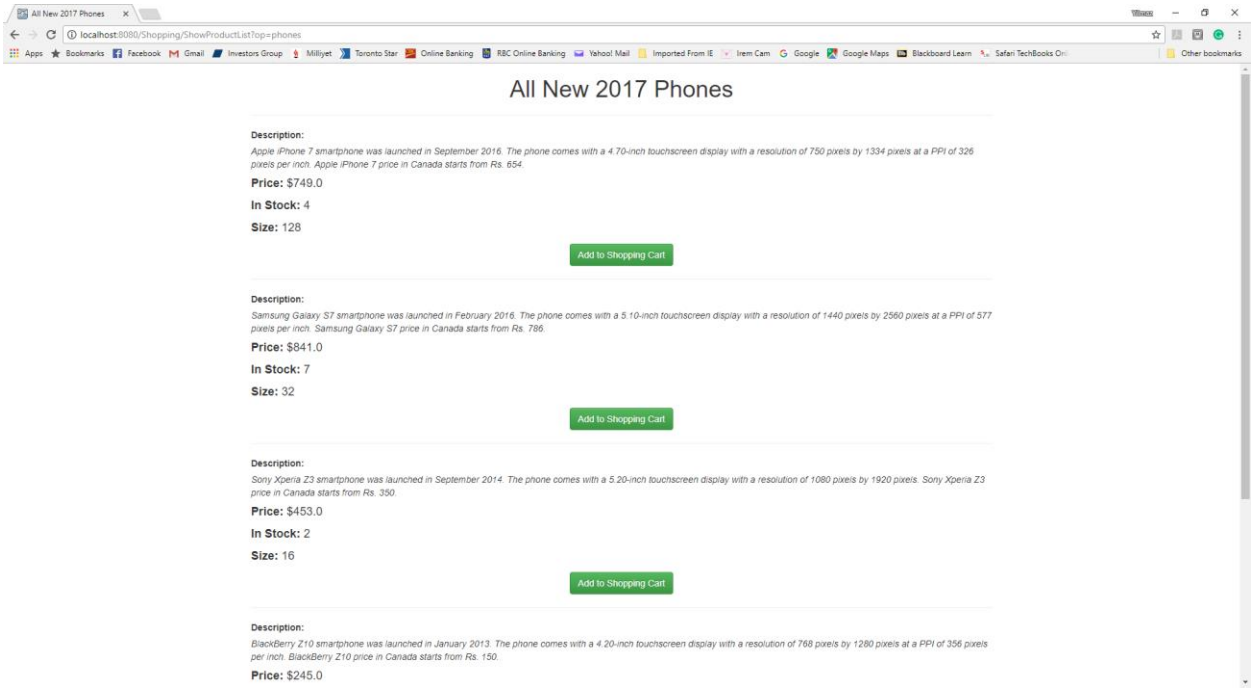
Sample Solution 1

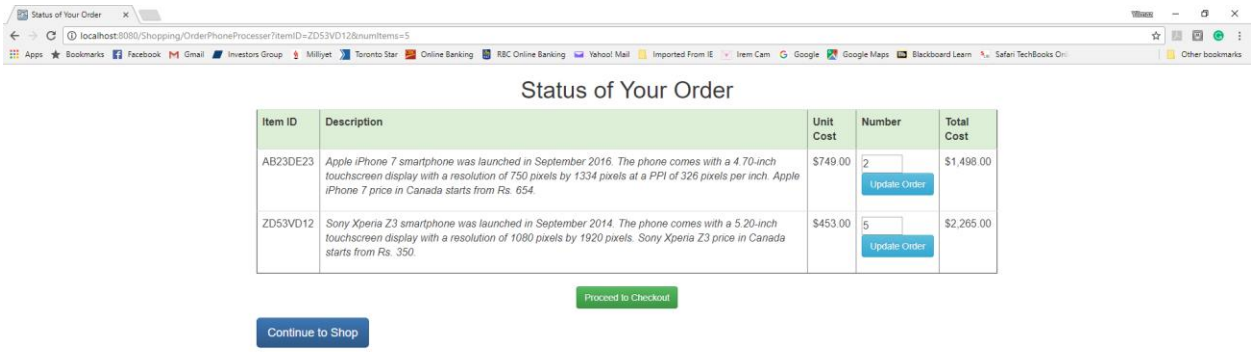




Sample Solution 2






Status of Your Order
localhost:8080/Shopping/OrderPhoneProcesser?itemID=ZD53VD12&numItems=5
Status of Your Order
Item ID
Description
Unit Cost
Number
Total Cost
AB23DE23
Apple iPhone 7 smartphone was launched in September 2016. The phone comes with a 4.70-inch touchscreen display with a resolution of 750 pixels by 1334 pixels at a PPI of 326 pixels per inch. Apple iPhone 7 price in Canada starts from Rs. 654.
$749.00
2
Update Order
$1,498.00
ZD53VD12
Sony Xperia Z3 smartphone was launched in September 2014. The phone comes with a 5.20-inch touchscreen display with a resolution of 1080 pixels by 1920 pixels. Sony Xperia Z3 price in Canada starts from Rs. 350.
$453.00
5
Update Order
$2,265.00
Proceed to Checkout
Continue to Shop

IMPORTANT SUBMISSION INSTRUCTIONS:

Name your Eclipse project with your group number and the assignment number, like in Group99_Assignment2.

You will lose marks if your project name conflicts with another group.

Submit your assignment to dropbox in a **zip file** that is named according to the following rule:

Group<number>_COMP303Assignment2.zip

Example: **Group99_COMP303Assignment2.zip**

Assignment files not named as per above rules, containing spaces etc. will not be marked.

Your ZIP file must include WAR file, instructions doc and a README.txt file.

Provide instructions on how to compile/run your code.

Add a README.txt file in the zip file above describing what you have used to solve each of the 2 exercises and the reason for your choice.

README.txt file should also include name and numbers of group members.

Mark Distribution:
- Functionality (as per requirements) - 55%
- Design (OO design, code reuse, etc.) - 20%
- Usability (user friendly, screen flow, appearance, etc.) - 15%
- Following coding standards (e.g. proper commenting, following naming conventions) - 10%
    - variable names start with a lowercase character
    - classes start with an uppercase character
    - packages use only lowercase characters
    - methods start with a lowercase character

Total – 100 points

Notes:
- Total mark is 100.
- You can use JDK/JRE 8.x, Eclipse (alternatively IntelliJ, NetBeans, JDeveloper), JBoss WildFly App Server while working on the assignment. If you don't have any of these installed on your computer, I suggest that you install them first.
- You can follow the documents that are on the eCentennial to install and setup. The documents are located under Content -> Course Materials -> How to Documents.
- Any assignment that is submitted after due date will be punished with 10 points per day. It will be marked as zero after 2 days.
- This is a group assignment and each group should have 3-4 members. You can discuss it other group members but no more than one group should submit the same solution. If it is done so, all groups will be punished with zero.
- Your solution should be saved as ZIP and sent to the Dropbox of eCentennial electronically. (according to directions explained above)
- Your ZIP file must include java source files.
- The assignment should be named according to the following rule:
  Group<number>_COMP303Assignment2.zip
  Example: **Group99_COMP303Assignment2.zip**