

Lab 1

75 Points

Readings 1-3

In our first lab of the semester we will create a **Java CLI application** that enables a store owner to calculate and output the cost of a product. As the owner you determine the store name, product, cost, and hours it takes to make the product. Your output should display all pertinent information in a readable format.

Lab Parameters

Using **Exercise 10 on page 176** of the textbook as a starting point, create an application that gets the following:

- Product Name
- Cost of Materials
- Hours of Work

Make sure to use the parameters noted in the exercise to calculate final costs.

Once the application has all the input and processed it, output the results with all relevant information to include shipping and handling. Add the following:

- Place a company name (you make up the company) formatted at the top with ASCII design as you deem appropriate.
- Detailed invoice for the product. In other words include pertinent items used to calculate the cost.
- Format the bottom of the output with ASCII as you deem appropriate.

Challenge Parameters

For those who want to create a more robust application, consider the following in this order [Must complete 1 before attempting 2]:

1. [Moderate Challenge] Calculate the price for more than one item (shipping remains the same). Make sure to output each item in the invoice.
2. [Difficult Challenge] Create a product class that encapsulates the information and instantiate object(s) from it to meet all lab parameters. Consider making a separate class file for this.

Important Information on Challenge Parameters

Moderate challenge parameters are OK to try if this is your first programming class. Difficult challenge parameters should only be attempted if you have previously coded. They are included for those who are attempting excellence in the lab.

However, it is better to have a completely coded, documented, and functional program without challenge parameters than it is to have a non-working or partially working lab with challenge parameters.

Important items to note

- Use NetBeans for this lab
- Follow variable and file naming conventions
- Use appropriate data types
- Document every file that you create and/or change
- Include your classID as appropriate

Deliverables

This lab should be turned in as follows:

- A netbeans project exported as a zip file that contains all of the necessary classes, including documentation.
 - Refer to the documentation guide for assistance.
- The zip file described above uploaded to the eLearning dropbox