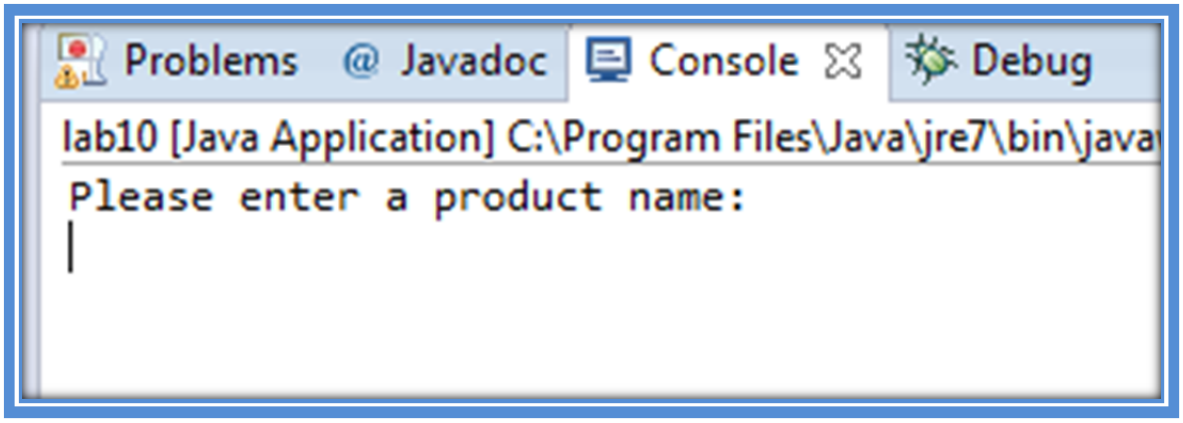
**CSCI2010 Principle of Computer Science**

# Laboratory Ten

## Activity 0: Preparation

1. Create a project called “lab10” under Eclipse;
2. Copy “lab10.java” into project;
3. Copy “LinkedBinaryTree.java” into project;
4. Copy “BTNode.java” into project;

Make sure your program can run correctly. An expected output of the UI is shown below.



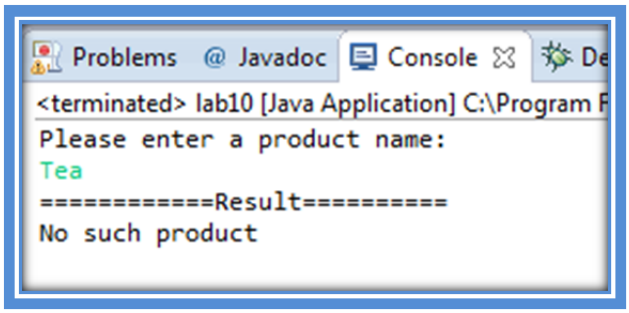
## Activity one: Sorting Products (10 marks)

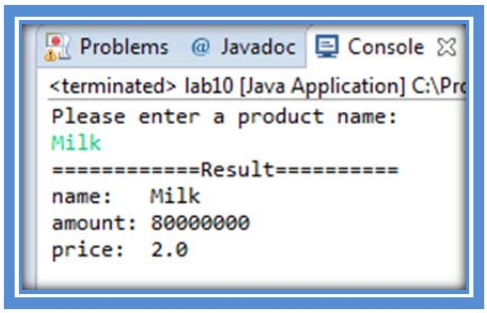
1. Create a class called *Product* to represent products in a store. Each product should contain the *name* of the product, *price* of the product, and the current *amount* of the product in inventory.
2. Implement the *comparable* interface for *Product* by writing a *compareTo*() method that makes comparisons based on the name of the product.
3. In *LinkedBinaryTree*, finish the insertion function and binary search function. (DON'T change any existed parts of the code but you can add any other variables or classes if needed)
4. In a driver program *lab10*, use a binary search tree (*LinkedBinaryTree*) to store several product items and let the user search for products. If a product is found, print the price and how many are in stock. (Note: a test code is ready and you can find the commented code block at the bottom, after finishing other parts you can use this code to test your program.)

## What need to be submitted?

ALL codes used in your project.

## Expected output results are shown below




==========The end of Lab 10==========