Lab Report 18

# Problem

We need to create a program that will let the user input five different boxes, sort the boxes by volume, and then print out the boxes’ label and volume in order.

# Proposed Solution

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| --- |
| **Box** |
| -label : String  -length : double  -width : double  -height : double |
| +getLabel : String  +getLength : double  +getWidth : double  +getHeight : double  +setLabel : void  +setLength : void  +setWeight : void  +setHeight : void  +getVolume : double  +toString : String |

# Tests and Results

I tested out the program multiple times and it manages to sort the values out fine.

# Problems Encountered

Figuring out how to do the selection sort was very difficult.

# Conclusions and Discussion

Other ways to solve this problem could be by using different loops like the while loop instead of the for loops.

# Additional Questions

1. Draw a UML Diagram to represent the Box class in the proposed solution section.

2. Can a derived class directly invoke a private method of the base class? Explain. No, private variables can’t be accessed by other classes.