Sam Ragsdale

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Final Project Proposal – Week 3 Submission

C05126059

For my final project for this class I am aiming to make a converter application. Essentially I want to take user input in the form of one type, process the data and return the converted type. Example: A user wants to convert from Celsius to Fahrenheit (or the other way around); they will enter the initial value, press a button to convert & receive the corresponding Fahrenheit value. The aim is to be able to convert between any metric & Imperial value; length, volume, weight, temperature, etc.

I think the way the program will actually look is that on the main window there will be several buttons for the different conversions – broadly – they will be: Temperature, Volume, Length, etc. Each button will instantiate a new window that will allow the user to select source & destination conversion factors, an input field, a submit button & an output field.

Example of needed classes:

A class to convert the given temperature which will have the subclasses Fahrenheit & Celsius which will have inherit abstract methods that convert appropriately. Additionally each class will have getter & setter methods to get what the temperature is & a setter method to mutate that value – such as for when the user wants to enter a different value. Also, all classes will have a toString method that will print out the imputed value & the calculated conversion.

All conversions will broadly follow this theme, they will just be different based on what they are: volume, length, etc.

I’m going to try and implement a super class from which all the subclasses will derive. The super class (something like, Conversion) will be an abstract class.

In summary:

My aim is to have at least the 4 conversion methods listed previously: Length, Volume, Weight, Temperature. Which will satisfy 4 classes, as well as the parent, abstract class: Conversion.

Each class will have, at minimum a getter, a setter, - e.g. getPounds, setLiters - and a toString method, which will put me around 12 methods.