Conrad Horton CSC203 June 2016 Calculating Taxes 6/25/2016

Analysis:

This problem was about learning how to use logical control flow to determine how a program will execute. It would take input from the user, and based on the input different calculations would be performed. The results of the varying calculations would then be output to the user.

Design:

Since each tax table's tax bracket threshold had an associated tax rate, I decided to use Key Value pairs in the form of a LinkedHashMap where the Keys were the tax rate, and the Values were the dollar amount threshold. Values inserted into an LHM keep their order as opposed to any other Map type; this made it the best choice since I needed to go from lowest bracket to highest. One LHM was made for each tax table. After that I determined which LHM to use based on the user's tax bracket. From there I proceeded to loop through each tax bracket and calculate the appropriate tax to charge. The result was output to the user.

Testing:

To test I used the values given to me from the assignment synopsis in a Test program written for the Taxes class.