In class on Monday, we tried to work through using a loop for computing taxes. I went down the wrong path. So here are some thoughts on how to complete Project 7.

Please note that you should use this like a template. Submissions closely resemble this will be frowned upon.

Also, this is incomplete code you need to fill in the blanks and fix anything that doesn’t work.

/\* Array to hold tax information. The rows are the tiers.

\* The columns are the tax rate, element 0, and the

\* Max Amount for each taxStatus at each tier.

\* I leave the loading to you. \*/

double[][] taxStuff = new double[7][4];

double tax = 0.0; // The tax amount

int TaxStatus = 0; // The Filing TaxStatus per user input

double taxAmount = 0.0; // The Taxable Amount per user input

// By now you should know what the following is and what it does.

Scanner input = new Scanner(System.in);

// Need to get the tier rates. This only needs

for (int tierNum = 0; tierNum < 7; tierNum++)

{

// Get input from user and place it in taxStuff[tierNum][0]

}

// The following code needs to be in a loop that terminates

// when the user enters a -1 for Filing TaxStatus

// Get Filing TaxStatus and Taxable Amount from the user

taxStatus = input.nextInt(); // Should do some error checking.

taxAmount = input.nextDouble(); // Should do some error checking.

// Tiers 1 and 7 are special cases and need to be dealt with.

// Tier 1

if (taxAmount <= taxStuff[0][taxStatus])

{

tax = taxAmount \* taxStuff[0][0];

}

else

{

// So we know that taxAmount is greater than the Tier 1 Max so…

tax = taxStuff[0][taxStatus] \* taxStuff[0][1];

// Now we can look at Tiers 2 - 7

for (int tierNum = 1; tierNum < 7; tierNum++)

{

//Tier 7

if (tierNum == 6)

{

// If we get this far, we know that the Taxable Amount is greater than the Tier 6 Max

tax += (taxAmount - taxStuff[tierNum - 1][taxStatus]) \* taxStuff[tierNum][0];

}

else

{

if (taxAmount <= taxStuff[tierNum][taxStatus])

{

tax += (taxStuff[tierNum][taxStatus] - taxAmount) \* taxStuff[tierNum][0];

break;

}

else

{

tax += (taxStuff[tierNum][taxStatus] - taxStuff[tierNum - 1][taxStatus]) \* taxStuff[tierNum][1];

}

}

}

}

// Output results and continue on.