```java
package cs175lab;

import java.util.Scanner;

public class NestedLoops {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Scanner sc = new Scanner(System.in);

        double HeatInd = 0;
        double RelHeat = 0;
        double Temp = 0;
        double i = 0;
        double TempInput = 0;
        double HumidityInput = 0;
        double Calculate = 0;


        HeatInd = -42.379 + 2.04901523*Temp + 10.14333127*RelHeat - .22475541*Temp*RelHeat - .00683783*Temp*Temp - .05481717*RelHeat*RelHeat
                + .00122874*Temp*Temp*RelHeat + .00085282*Temp*RelHeat*RelHeat - .00000199*Temp*Temp*RelHeat*RelHeat;
        System.out.printf("     ");
        for (i = 80; i<=110; i+=2)
            System.out.printf("Temperature (F)");
        {
            System.out.printf("%5.0f", i);
        }
        System.out.println();
        System.out.println("_____________________");
        for (RelHeat = 40; RelHeat <= 100; RelHeat+=5) //this is the Y axis
        {
            System.out.printf("%4.0f |", RelHeat);
            System.out.printf("Relative Humidity");
            for (Temp = 80; Temp <= 110; Temp+=2)

            {
                HeatInd =  -42.379 + 2.04901523* Temp + 10.14333127* RelHeat - .22475541*Temp*RelHeat - .00683783*Temp*Temp - .05481717*RelHeat*RelHeat + .00122874*Temp*Temp*RelHeat + .00085282*Temp*RelHeat*RelHeat - .00000199*Temp*Temp*RelHeat*RelHeat;
                //print the spaces


                if (HeatInd > 137)
                {

                System.out.printf("");
                }
                else
                {
                    System.out.printf("%5.0f", HeatInd);
                }
            }
            System.out.println();
```

```
52        }
53
54
55        //after chart questions
56        while ((TempInput == 0) && (HumidityInput == 0))
57          {
58        System.out.println("Please enter a temperature or 0 to quit: ");
59        TempInput = sc.nextDouble();
60             System.out.println("You have ended the program!");
61             break;
62          }
63        System.out.println("Please enter a temperature or 0 to quit: ");
64        TempInput = sc.nextDouble();
65        System.out.println("Please enter a humidity: ");
66        HumidityInput = sc.nextDouble();
67
68
69
70
71        Calculate = -42.379 + 2.04901523* TempInput + 10.14333127* HumidityInput -
  .22475541*TempInput*HumidityInput - .00683783*TempInput*TempInput -
  .05481717*HumidityInput*HumidityInput + .00122874*TempInput*TempInput*HumidityInput +
  .00085282*TempInput*HumidityInput*HumidityInput -
  .00000199*TempInput*TempInput*HumidityInput*HumidityInput;
72
73
74        //after chart answers
75        if (Calculate < 90)
76            //The THI for a temperature of 90 and relative of 70 is: 105 Advisory: Danger
77            {
78            System.out.println("The THI for a temperature of " + TempInput + " and relative of
  " + HumidityInput + " is: " + Calculate + " Advisory: Caution");
79            }
80        else if (Calculate < 105)
81            {
82            System.out.println("The THI for a temperature of " + TempInput + " and relative of
  " + HumidityInput + " is: " + Calculate + " Advisory: Extreme Caution");
83            }
84        else if (Calculate < 126)
85            {
86            System.out.println("The THI for a temperature of " + TempInput + " and relative of
  " + HumidityInput + " is: " + Calculate + " Advisory: Danger");
87            }
88        else
89            {
90            System.out.println("The THI for a temperature of " + TempInput + " and relative of
  " + HumidityInput + " is: " + Calculate + " Advisory: Extreme Caution");
91            }
92
93
94
95    } //void
96
97} //class
98
```