```java
import java.util.Scanner;

public class HeatIndex {

	public static void main(String[] args) {
		// TODO Auto-generated method stub


		Scanner sc = new Scanner(System.in);

		System.out.println(" NOAAs National Weather Service");
		System.out.println(" heatInd");
		System.out.println(" ");
		System.out.println("relTemp(F)");
		System.out.println("Hum(%)");

		System.out.printf("       ");
```

```
                for (int temperature = 80; temperature <= 110;
temperature = temperature+2) {
                    System.out.printf("%6d", temperature);
                }
                System.out.println();

System.out.println("_____________________________________________________
_____________________________________________");


                for (int hum = 40; hum <= 100; hum = hum+5) {

                    System.out.printf("%3d  | ", hum );for(int a = 80;
a <= 110; a = a + 2) {

                        String nothing = " ";

                        int calculation = (int)(-42.379 + (2.04901523 *
a) + (10.14333127 * hum) - (.22475541 * a * hum) - (.00683783 * a *
a) - (.05481717 * hum * hum) - (.00122874 * a * a * hum) - (.00085282
* a * hum * hum) - .00000199 * a * a * hum * hum);
                        if (calculation <= 137) {
                            System.out.printf("%6d", calculation);
                        }
                        else

                            System.out.printf("%6s", nothing);
```

```
            System.out.println();
        }


        boolean run = true;
        while(run == true){
            System.out.println("Enter temperature or 0 to
end: ");
            double temperature2 = sc.nextDouble();
            if (temperature2 == 0) {
                run = false;
                System.out.println("You quit");
                break;
            }


            System.out.println("Enter relative humidity:
");
            double hum2 = sc.nextDouble();

            double thi = -42.379 + (2.04901523 *
temperature2) + (10.14333127 * hum2) -
```

```
                                (.22475541 * temperature2 * hum2) -
(.00683783 * temperature2 * temperature2) - (.05481717 * hum2 * hum2)
+
                                (.00122874 * temperature2 *
temperature2 * hum2) + (.00085282 * temperature2 * hum2 * hum2) -
.00000199 * temperature2 * temperature2 * hum2 * hum2;
                        System.out.println("The THI for a temperature
of " + (int) temperature2 + " and relative humidity of " + (int) hum2
+ " is " + (int) thi);


                        if (thi <= 90) {
                            System.out.println("Caution Advisory");
                        }
                        else if (thi < 105) {
                            System.out.println("Extreme Caution
Advisory");
                        }
                        else if (thi < 126) {
                            System.out.println("Danger Advisory");
                        }
                        else {
                            System.out.println("Extreme Danger Advisory
");
                        }
                    }
                }
```

```
        }

}
```