**CS 299 Project #3 (60 points + 10 bonus points)**

Problem 1:

From USGS site find the recent (3-month) earthquake data. Output a histogram of recent earthquake. The x-axis should display the earthquake in magnitude (in 0.1 increment) and the y-axis should display the count (i.e. number of earthquakes of that magnitude happened within the 3-month period.)

Problem 2:

Use Python lists to solve the N queens problem using backtracking. (Note: you can find N queens problem description online, however, you cannot use the N queens Python program online. If you used any online version or similar to online version, it will be considered violation of academic integrity policy.)

Bonus problem:

In crypt-arithmetic puzzles, mathematical equations are written using letters. Each letter can be a digit from 0 to 9, but no two letters can be the same. Here is a sample problem:

SEND + MORE = MONEY

A solution to the puzzle is S = 9, R = 8, O = 0, M = 1, Y=2, E=5, N = 6, D = 7.

Write a program that uses list(s) and/or string(s) (note: you cannot use other data structures such as set, tuple, or dictionary) to solve this problem. The program will ask a user to enter a crypt-arithmetic equation (note: minimum requirement for the equation is the one shown above, however, you may extend to x-y = z or u+v+w=z format.) Then, your program will try to solve the equation. If the equation can be solved, output the values for the letters that satisfy the equation. If the equation cannot be solved by your program, output a message.