CSE 215L#3

Spring 2016

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Note: If your code is similar to someone else's code or if you fail to explain any portion of your code, you will get 0. No exception and no explanation.

1. Write a program that has an integer array and it prints the frequency of each integer. Frequency is the number of times an integer occurred.
   Sample array = {1, 2, 1, 3, 4, 1, 3, 6}
   Output: Frequency of 1: 3, frequency of 2: 1 etc.
   [Hint: use an array to calculate frequency]

2. Write a program that has the following matrix:

   $$\begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{bmatrix}$$

   Calculate and print the sum of each row, column and diagonal.

3. Write a method isPrime() that takes an integer and returns true if it's prime or false otherwise.

4. Write a method generatePrime() that takes two integers and prints all the prime numbers in that range. You can use the method isPrime() for your solution.

5. Write a method sumDigit() that takes an integer and returns the sum of digits.
   For example: for 123 the methods returns 6.

6. Write a method gcd() that takes two integers and returns their GCD (Greatest Common Divisor).
   For example: gcd of 8 and 12 is 4.