

## **CIS 3362 Homework #1 - Coding Intensive Group**

**Assigned: Monday, August 31, 2015**

**Due Date: Check Webcourses**

### **Part I - Coding**

Create tools that make the substitution cipher easier to break. At a very minimum, your tool should:

- (a) Calculate letter frequencies.
- (b) Calculate the occurrences of substrings (of length 2 or more) that appear multiple times in the cipher text.

You may add other features to your tool.

Create documentation so that the tool is easy to use for a student who has taken COP 3223. (It can be web based, or something that they can compile and run, or just an executable.)

### **Part II - Break One Code**

Using your own tool, break the following ciphertext:

```
ntnxfnpxuqumnrftnxfzuxvj kxuanuyjqnvprnkwp lnukejujtnxflwbvnj  
brfbzzulnobjbjqnzxyjbjzrfbzzulnpymwbbcpxbeympymzuympybdinljf  
besbewmoxpdjbkejzuxnbejeymnxynpjqujfbesuwzuymfexkxuan
```