Richard Hayes Crowley

02/18/2021

CSC\_157\_Lab\_09\_QA

1. **What is steganography? How is it similar to cryptography?**

Steganography is the art of hiding messages within a medium, for example within a group of sentences, a picture, or even a computer file. It is similar to cryptography in that they are both ways to send secret messages, however, cryptography involves decrypting a cipher text (called a “hash” in computing) into plain text using a key, while steganography doesn’t necessarily alter the form of the message.

1. **What are some purposes of constructing a letter frequency for a sentence, essay or treatise?**

Besides building a key to unlock a steganographic message, I can’t what other purposes constructing a letter frequency for a piece of writing could serve.

1. **Explain the task performed by the following code segment?**

**line = "the enemy has advanced"**

**listLine = [ch for ch in line]**

**for x in range(0, len(listLine)) :**

**if (x % 4 == 0) :**

**print (listLine[x], end = "")**

**print ("\n\n")**This code segment breaks the sentence into an array of characters using list comprehension, loops over the length of the list and prints the character at the current index if that index is cleanly divisible by 4 (has no remainder).

1. **How are text files used in your program code for this project?**

Sentences.txt holds the data for my program. I simply read it using open() and readline to break it into an list of lines.

1. **What have you learned from performing and coding for this lab assignment?**

I’ve learned a bit more about Python list comprehension (thanks to the examples for this lab), as well as the difference between steganography and cryptography.