# **CS 160 LAB 5**

# Chapter 8 – Information Security

1. Using the hash function described in [Section 8.2.1](javascript://), find the encrypted forms of the following passwords:
   1. Fido

-f = 6 -d = 4

-i = 9 -o = 15

- 6 + 9 + 4 + 15 = 34

- (6 + 1) \* 9 = 7 \* 9 = 63

-36

-The encrypted password for “fido” using the hash function is “cf”.

* 1. Blank

-b = 2 -a = 1 -k = 11

-l = 12 -n = 14

- 2 + 12 + 1 + 14 + 11 = 40

-(5+1) \* 9 = 6 \* 9 = 54

-45

-The encrypted password for “blank” using the hash function is “de”

* 1. ti34pper

-t = 20 -4 = 4 -e = 5

-i = 9 -p = 16 -r = 18

-3 = 3 -p = 16

- 20 + 9 + 3 + 4 + 16 + 16 + 5 + 18 = 91

-(0+1) \* 9 = 1 \* 9 = 9

- The encrypted password for “ti34pper” using the hash function is “i”

1. The default passcode on a cell phone is usually 4 digits, each 0–9.
   1. How many different passcodes are possible?

-Number of possible different passcodes: 10 \* 10 \* 10 \* 10 = 10000

* 1. If you can enter a 4-digit passcode in one second, about how long would it take you to try all possible passcodes?

-10,000 seconds.

* 1. If the phone locks after 10 incorrect tries for one hour, about how long would it take to try all possible passcodes?

1. Using a Caesar cipher with s = 5, decode the received message RTAJ TZY FY IFBS.

-S = 5 (shift 5 positions left from the current character). A is decrypted as V, B is decrypted as W, Y is decrypted as T, and Z is decrypted as U.

-The decoded message of “RTAJ TZY FY IFBS” is “MOVE OUT AT DAWN”

1. You likely own one or more smart devices. Pick two different smart devices that you own and describe a security/privacy concern that you have with each one. I am looking for at least two paragraphs per device, with some specifics around the concern you have. In other words, don’t just say “I am concerned that my Echo device captures everything I say.” If you do not own any smart devices, then find some articles online that describe some concerns, cite them, and give me your point of view.

- Last year I noticed an issue with my google home mini in the way that with no reason started to reproduce an unknown playlist. At first, I thought that my phone was the problem, but I decided to upgrade, and I bought a new one but the strange problem it was still happening, so I start to search for a solution. The problem was that because I live in a department somebody without noticing got connected and that revealed me the poor security that these smart devices have.

- A similar case happened to my computer I was connecting my Bluetooth earphones when I noticed a strange connection to an Apple Tv. At first, I thought how many days my computer was connected to that Apple TV and how it got connected without my approval. Clearly, somebody was watching what I was doing and I was obligated to change all my passwords it is sad that how easily somebody can find a way to spy you and the insecure that these devices are.

1. Have you been targeted with any phishing or social engineering email in the last few months? Look in your junk folder or find a recent example and describe what the attacker was trying to do and how you detected it was a phish. Write atleast two paragraphs.

- Two years ago I received an email saying that I was needed to change my password of Facebook because somebody was trying to get access to my account. At first, I believe that it was a real e-mail from Facebook but then I remembered that the real e-mail from Facebook always attaches the IP address from the device that is trying to get access to my account. I was not the only one who was targeted by that type of email a friend accidentally update their password and two hours later his account got stolen.