IT\_120\_Module\_5\_Lab\_4\_PeterBehrens

Exercise 1: Caesar Cipher

1. Encrypt the message MATH with the Caesar cipher with 4 as the key.

1. QEXL

2. Encrypt the message CRYPTO with the Caesar cipher with 6 as the key.

2. IXEVZU

3. The message QIIX PEXIV was encrypted using the Caesar cipher with 4 as the key. Decrypt the message.

3. MEET LATER

4. The message SKKZ NKXK was encrypted using a Caesar cipher. Decrypt the message.

4. MEET HERE

To decode and code using Caesar I used <https://www.dcode.fr/caesar-cipher> which gave me multiple options of ciphers depending on the shift. All I had to do was copy and paste the line of code than pick out the cipher that made an actual sentence. This was the easiest exercise and I had no issues with this. Shifts included +4, +6, +4, +6

Exercise 2: Vignere cipher `

1. Encrypt FOLLO WTHEY ELLOW BRICK ROAD with the keyword OZ.

1. TNZKC VHGSX SKZNK AFHQJ FNOC

2. Decrypt LOSVW AZBSH DHQID ARSLG EL, encrypted with the Vignere cipher using SHOES as a key

2. THERE IS NO PLACE LIKE HOME

To complete this exercise I used the website <https://www.dcode.fr/vigenere-cipher> In which all I had to do is copy and paste the code and then choose the cipher that made a complete sentence. This was somewhat difficult because there were multiple possible decryptions. Using the keys provided I got the answers above. These keys were Oz and shoes

1. Decrypt the message encrypted with a Caesar cipher: PAXG LAHNEW B KXMNKG

1. When should I return.

2. Decrypt the message encrypted with a Caesar cipher: QUCN ZIL U JBIHY WUFF

2. Wait for a phone call.

3. Decrypt the message encrypted with a Caesar cipher: GUR ENOOVG PENJYRQ BHG BS VGF UBYR

3. The rabbit crawled out of its hole.

4. Decrypt the message encrypted with a Caesar cipher:

MAXLX TKXGM MAXWK HBWLR HNKXE HHDBG ZYHK

4. These aren’t the droids you’re looking for.

To decode and code using Caesar I used <https://www.dcode.fr/caesar-cipher> which gave me multiple options of ciphers depending on the shift. All I had to do was copy and paste the line of code than pick out the cipher that made an actual sentence. This was a fairly simple exercise and I had no issues. The shift varied from +19, +20, +13, +19.

Exercise 4: Breaking the Vignere Cipher `

1. Decrypt the following message, which was encrypted with a Vignere cipher of length 4: `

BCRRBCQORHKEPSLSLCWRWXXDESPEZMPYQWCEBCBOSFHCIZHSQWVHCBRWRVLNEGDRCKRRQS.

1. Do or do not there is no try. Judge me by size do you? Reckless is he. Now things are worse.

2. Decrypt the following message, which was encrypted with a Vignere cipher of length 4: `

KBPYU BACDM LRQNM GOMLG VETQV PXUQZ LRZNM GOMLG VETQV PXYIM HDYQL BQUBR

YILRJ MTEGW YDQWE GUPGC UABRY ILRJM XNQKA MHJXJ KMYGV ETQVP XCRWV FQNBL

EZXBW TBRAQ MUCAM FGAXY UWGMH TBEJB BRYIL RJMLC CAHLQ NWYTS GCUAB RYILR

JMLNT QGEQN AMRMB RYILR JMPGP BXPQN WCUXT GT

2. It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of Light, it was the season of Darkness, it was the spring of hope, it was the winter of despair.

To complete this exercise I used the website <https://www.dcode.fr/vigenere-cipher> In which all I had to do is copy and paste the code and then choose the cipher that made a complete sentence. This was fun and easy as I recognize many of the quotes and keys. The keys included Yoda and city.

Exercise 5

Use what you know to decrypt the following message. Note, the original word spacing is intact:

1. LKZB RMLK X JFAKFDEQ AOBXOV TEFIB F MLKABOBA TBXH XKA TBXOV LSBO JXKV X NRXFKQ

XKA ZROFLRP SLIRJB LC CLODLQQBK ILOB TEFIB F KLAABA KBXOIV KXMMFKD PRAABKIV

QEBOB ZXJB X QXMMFKD XP LC PLJB LKB DBKQIV OXMMFKD OXMMFKD XQ JV ZEXJYBO

ALLO Q FP PLJB SFPFQBO F JRQQBOBA QXMMFKD XQ JV ZEXJYBO ALLO LKIV QEFP XKA KLQEFKD JLOB

1. Once upon a midnight dreary, while I pondered, weak and weary, Over many a quaint and curious

volume of forgotten lore, While I nodded, nearly napping, suddenly there came a tapping, As of some

one gently rapping, rapping at my chamber door. ‘Tis some visitor, I muttered, tapping at my chamber

door Only this, and nothing more.

To decipher this code I used <https://www.dcode.fr/vigenere-cipher> In which I pasted the code and got the translation the vignere key was Xxxx and the Caesar shift was +23. I did not struggle because I used the same websites and technics from the exercises above.