COL 759
Assignment 1

Instructions:

- Deadline for Part 1 is **11:55 PM, 19/01/2020** and for Part 2 is **11:55 PM, 26/01/2020**

- Allowed languages for programming: **Python/C++**

- The set of valid characters **a-z**

Part 1:

Implement encryption and decryption using Hill Cipher on variable length(500 or more) plain text and ciphertext consisting of the above mentioned characters. The key could also be of variable length.

Example:

Key(2x2) : 22 3 9 6
Plain Text:
speaking of dreams in a figurative sense then slowly talking about its impact in the literal sense the writer keeps stressing on one very important point that dreams have an important role to play in american politics after all a liberal society is formed on the basis of ones imagination these imaginations are a result of ones free thoughts which can be related to dreams as dreaming provides a picture of the real world uncovering things which otherwise might not have been pondered upon due to narrowed and limited freedom of imagining it may seem reckless to consider the possibility of turning to dreams to work through the political conditions today but ignoring them altogether might even be more reckless says the author
Cipher Text:
zskkkisx la nzkkgi hu p emexwfkfqm oxkse xfxk nukycj cpmdhuc cmpdi zee cxqgma lf xkj gronkxk zxkse xfy mitono fwiuj lqwvikhus iq tml gfel eoilphnav busfx xffk nzkkgi ylgf na eoilphnab ndkp up iivg ea nqcitsst zdkzeagg gldji hoi v grihkxk zcigswd wy wzurtc jw xfn qcewy la jwmo eoskhufkkaf xkjse

eoskhufkkacr zyk k wvownf la jwmo frwi xfemxset lgage xna ih wvivont lf owvkug gp ywvkuhuv oadsdazg g qbxcxwa ql dkj wvho gwrlw rgzhsjihuh mwhsxu iwhni bgkjyzwyu emedv qtx flwn qwit zjwazwvw rilj fkw sv anjvkytc nav peozetc frwiehu ke peeayyjsx ze eek mwid cqwtamol qc ijwecazp hkj ilikxabizey ol dxwyjsx sv nzkkgi sv gwof xfadqid vkj ilgralsso hjwmxaljwl qfouo eza lpcvuhuh mkje enfogpukju rmedv vgxk ih ukwv wvwautik ggkm xfk kdiorhR

Part 2:

Given the ciphertext and length of the key, perform cryptanalysis to find the plain text and the key. Test on different cases.