January 2021 CSE214: Assembly Language Programming (Self-Study) Offline on Disk and File Operations

Encryption is the process of encoding messages or information in such a way that only authorized parties can read it. To encode a message a key is used. This key is also used to decrypt the message.

Such an encryption technique is where each character in the message is replaced by another character. In this technique, a key is a number that denotes the difference between the plain character and the encrypted character. That is if the key is set to 2, for every 'a' appearing in the message it will be replaced with 'c'. A detailed example is given below for key set to 2:

Plain Message: 'Alice is a friend of Bob'

Encrypted Message: 'Cnkeg ku c htkgpf qh Dqd'

Here, it is worth mentioning that, encryption occurs in a circular fashion. That means if a character in the plain message is 'z' and the key is set to 2 then the encrypted character will be 'b'.

In this offline, you will be provided with a file containing the key (as plain text/not encrypted) and a message in encrypted form. Your task will be to read the file, decrypt the message and write it In another file. Below is the link to a sample file that contains the key and the encrypted message:

Sample.txt

For the given input file, the output should be a file containing the following text:

Zoo say Hello World

Reference:

Chapter 19

Deadline:

8 AM April 11, 2021