Green University of Bangladesh
Department of Computer Science and Engineering (CSE)
Faculty of Sciences and Engineering
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Course Title: Operating System Lab
Course Code: CSE 310   **Section:** DC

Lab Project Name: Mtext: A message locker

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[For Teachers use only: Don't Write Anything inside this box]

Lab Project Status

Marks: …………………………………   Signature: ....

Comments: ....   Date: ....

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Chapter 1: Introduction

Mtext is a message locking software for Linux environment. Used language for this project is BASH and the GUI of this project is built with ZENITY. It locks users' personal message with a 4 key code. After locking the message, user can send the message through any secured or unsecured channel but the software defined unlocking key must send through the secured channel.

1.1   Objective

The core objective behind this project is to implement a classic message encryption technique named Additive cipher with BASH and provide a software service to user to make his personal message secure. Also, to learn the Linux environment more deeply.

Chapter 2: Implementation of the project

I divided the Implementation process of the project on two parts. First of all, I will discuss about he working process and after that I will show a diagram related to the working process.

2.1 Working Process

At the start of the whole process, the user will first provide the message which need to be lock. Then the user needs to provide 4 key one by one. After taking these keys, the program then locks the message and provide an unlocking key to user. Note that each key must be a number within the range of 1 to 26.
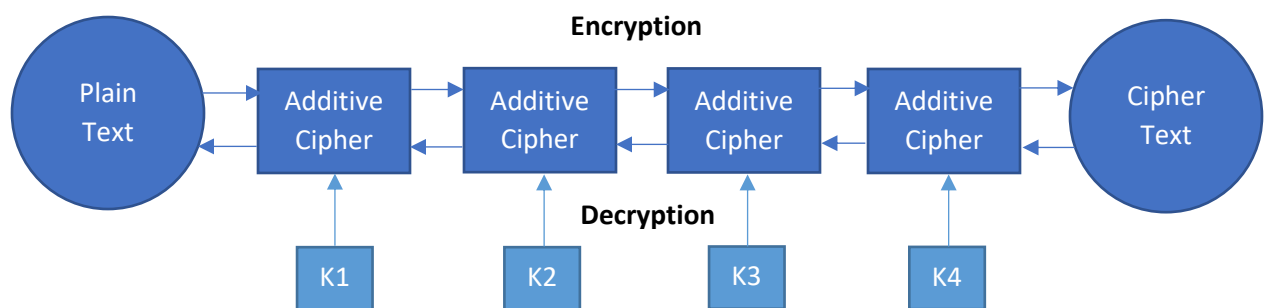
2.2 Diagram

The working diagram is given below,

Encryption

Plain Text → Additive Cipher → Additive Cipher → Additive Cipher → Additive Cipher → Cipher Text

Decryption

K1   K2   K3   K4

Fig: Working diagram

Chapter 3: Performance Evaluation

3.1 Providing text message

The screenshots shared below will take user input for the message which need to be lock and a screen will appear to select the operation,
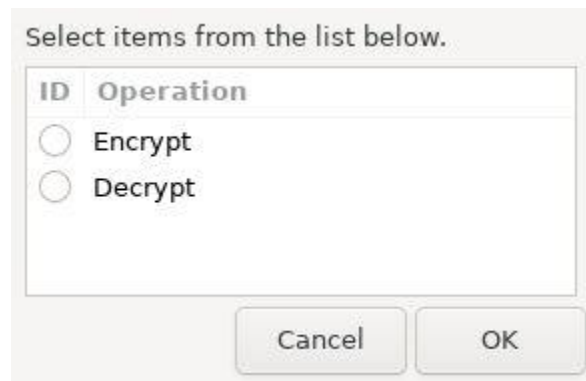
Fig: Providing text message

3.2 Choose an operation

The screenshot shared below will take user input for an operation,

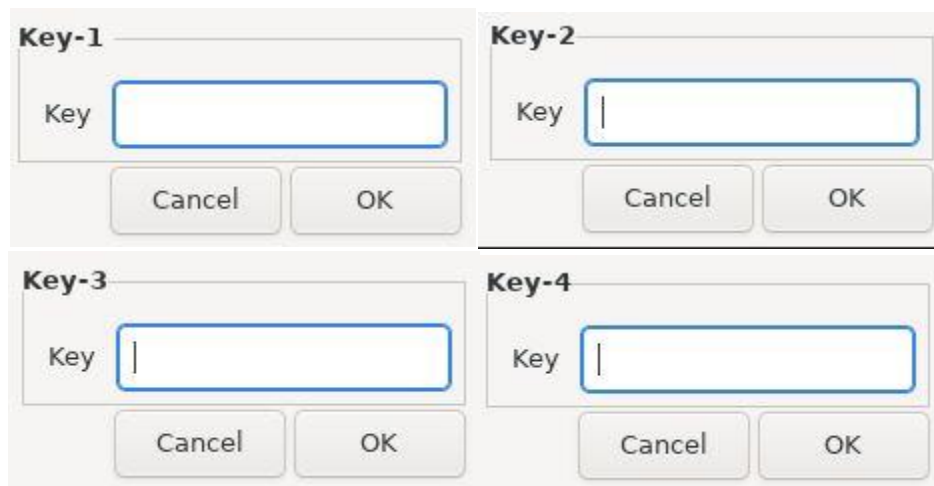**Fig:** Selecting an operation

3.3 Providing keys

The screenshot shared below will take user input for the key. This screen will appear four times to take four keys from user,

Fig: Providing keys

3.4 Lock/Unlock message

The screenshot shared below will show the message which Locked/Unlocked.
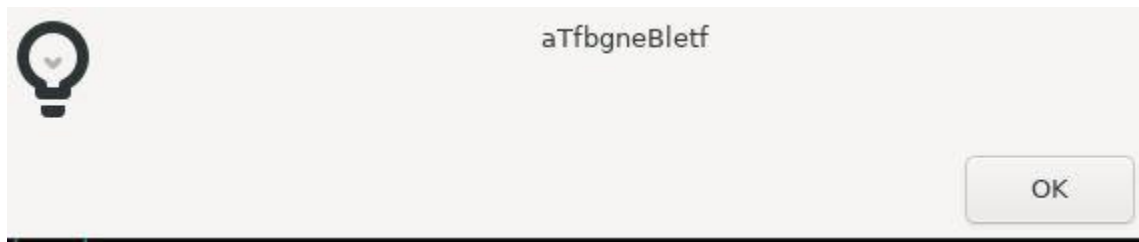
aTfbgneBletf

OK

Fig: Result

Chapter 4: Conclusion

This project can be a great start to bult a security software to protect user personal messages from unwanted access and misuse of the message. This project is still under developing condition. Besides this program uses simple classic encryption technique which is not very strong. In future we can use more secured and complex encryption/decryption algorithm to lock the message more effectively.