**CS Project**

Introduction:

Encryption is used everywhere in the Morden world from instant messengers such as WhatsApp to Bank cards and accounts. With this use of encryption in everything that we do in the Morden world I believe it is incredibly important to have a working understanding of both how encryption works and how secure different levels of encryption are.

I have had a look for multiple different types of encryption websites and applications and while there are many applications for different cyphers such as Caesar cypher there are very few that allow you to play with multiple different types of encryption algorithms as to compare them in both how they work and how secure they are.

One way of accomplishing this goal is to allow people to email their encrypted messages to one another as to allow other people to attempt to crack the cypher, this would help people by seeing how with a bit of effort they can Easily solve the Caesar cypher but are unable to solve better encryptions such as key encryption.

The Caesar cypher will be a fantastic cypher to use as it is one that has a very basic premise to it of only shifting characters but a given amount; this makes it a very good starting cypher as it introduces people to the basics of how encryption works and allows a discussion of the PROs and CONs of Encryption and helps us compare different types of encryption needed.

The Vigenèrecipher as an offshoot from the Caesar The Vigenèrecipher cypher provides a great way to demonstrate how we can improve methods of encryption and how we have slowly gained a better understanding of encryption and methods of encryptions.

The most common method of encryption used today is keys where a message is encrypted with a string of randomly generated (or generated from a key phrase) characters. This allows us to demonstrate and allows us to demonstrate and learn how secure modern encryption is and how different a 64bit key verses a 128 or 256 bit key.

**Design:**

UI:

Main menu

**Description:**

Caesar cypher

Vigenèrecipher

Symmetric key

Rotor

­­­­­­Help

Exit

­­­­­­Enter

Caesar cypher

­­­­­­Enter text

Off set dropdown

Shift right

Shift left

Encoded text

Vigenere

Encoded text

­­­­­­Enter text

­­­­­­Encode

­­­­­­Decode

Key