

Caesar Cipher

```
Enter String :  
hello  
Enter Key :  
4  
Encrypted String is :  
lipps  
Key is : 4  
Decrypted String is : hello  
Attack starts :  
Key is : 0  
Decrypted String is : lipps  
Key is : 1  
Decrypted String is : kloor  
Key is : 2  
Decrypted String is : jgnnq  
Key is : 3  
Decrypted String is : ifmmp  
Key is : 4  
Decrypted String is : hello  
Key is : 5  
Decrypted String is : gdkkn  
Key is : 6  
Decrypted String is : fcjjm  
Key is : 7  
Decrypted String is : ebiil  
Key is : 8  
Decrypted String is : dahhk  
Key is : 9  
Decrypted String is : czggj  
Key is : 10
```

```
Key is : 10  
Decrypted String is : byffi  
Key is : 11  
Decrypted String is : axeeh  
Key is : 12  
Decrypted String is : zwddg  
Key is : 13  
Decrypted String is : yvccf  
Key is : 14  
Decrypted String is : xubbe  
Key is : 15  
Decrypted String is : wtaad  
Key is : 16  
Decrypted String is : vszzc  
Key is : 17  
Decrypted String is : uryyb  
Key is : 18  
Decrypted String is : tqxxa  
Key is : 19  
Decrypted String is : spwwz  
Key is : 20  
Decrypted String is : rovvv  
Key is : 21  
Decrypted String is : qnuux  
Key is : 22  
Decrypted String is : pmttw  
Key is : 23  
Decrypted String is : olssv  
Key is : 24  
Decrypted String is : nkrru  
Key is : 25  
Decrypted String is : mjqqt
```

Diffie hellman(Digital signature)

```
Enter value of p , g : 23
9
Enter private key a for Lucious Fox : 4
Enter private key a for Bruce wayne : 3
Secret key for Lucious Fox is 9
Secret key for Bruce wayne is 9

Made by: Manan Patel (19DCE104)
```

RSA

```
Enter First Prime number: 3

Enter Second Prime number: 7

Public ckey e = 5, Private key d = 5

Enter Your Message (Number): 12

Encrypted Message: 3

Decrypted Message: 12
```

Rail Fence

```
-----encryption-----
Enter Text :- 300 achieved glory at hot gate, unite for Greece
Enter Key :- 3

3---a---e--- ---r---t---t---t---u---e---r---e---
-0- -c-i-v-d-g-o-y-a- -o- -a-e- -n-t- -o- -r-e-e
--0--h---e---l--- ---h---g---,---i---f---G---c-

encryption message : - 3ae rtttuere0 civdgoya o ae nt o ree0hel hg,ifGc
-----decryption-----

3---a---e--- ---r---t---t---t---u---e---r---e---
-0- -c-i-v-d-g-o-y-a- -o- -a-e- -n-t- -o- -r-e-e
--0--h---e---l--- ---h---g---,---i---f---G---c-

decryption message : - 300 achieved glory at hot gate, unite for Greece
```

Playfair

```
1. Encipher
2. Decipher
3. Exit
Enter choice: 1
Keyword: pearlharbour
5x5 Matrix
P E A R L
H B O U C
D F G I K
M N Q S T
V W X Y Z
Message to cypher: Hiroshima
Cypher text: UDAUMUDSPQYY
```

```
1. Encipher
2. Decipher
3. Exit
Enter choice: 2
Keyword: pearlharbour
5x5 Matrix
P E A R L
H B O U C
D F G I K
M N Q S T
V W X Y Z
Cypher text: UDAUMUDSPQYY
Decipher text: HIROSHIMAMXX
```

```
1. Encipher
2. Decipher
3. Exit
Enter choice: 3
```

one time pad

```
D:\Softwares\Anaconda\python.exe "E:/Study
Enter message to send : justice

Encrypted message : qgcyl dh
Decrypted message : justice

Keys used : (7, 12, 10, 5, 3, 1, 3)

Process finished with exit code 0
```

Hill cipher

```
Enter 3x3 matrix for key (should have inverse):
6 24 1
13 16 10
20 17 15

Enter a string of 3 letter (use A to Z): FAM
Cipher text =QDU
inverse key matrix

8 5 10
21 8 21
21 12 8

Decrypt message = FAM
Made by: Manan Patel (19DCE104)
```

```
Enter 3x3 matrix for key (should have inverse):
6 24 1
13 16 10
20 17 15

Enter a string of 3 letter (use A to Z): ILY
Cipher text =YAF
inverse key matrix

8 5 10
21 8 21
21 12 8

Decrypt message = ILY
Made by: Manan Patel (19DCE104)
```