

CEN 593 – Computer Networks Laboratory File

BTech Computer Engineering
Vth Semester

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1. Baconian Cypher

```
1. Encrypt.
2. Decrypt.
3. Set ignore character list.
4. Set carrier text.
5. Exit.
Enter your choice : 4
Enter carrier text : Great ideas often receive violent opposition from mediocre minds Sometimes the biggest act of courage is a small one
1. Encrypt.
2. Decrypt.
3. Set ignore character list.
4. Set carrier text.
5. Exit.
Enter your choice : 1
Enter plain text : HelloWorld
Encrypted text : grEAT idEas oFtEN rEcEIVE VIoLeNT opPOSiTion FrOm MEDioCR
Do you want to decrypt (y/n) : y
Plain text : helloworld

1. Encrypt.
2. Decrypt.
3. Set ignore character list.
4. Set carrier text.
5. Exit.
Enter your choice : 2
Enter encrypted text : grEAT idEas oFtEN rEcEIVE VIoLeNT opPOSiTion FrOm MEDioCR
String contains special character(s).
Plain text : helloworld

1. Encrypt.
2. Decrypt.
3. Set ignore character list.
4. Set carrier text.
5. Exit.
Enter your choice : 5
Exiting...
```

2. Substitution Cypher

```
1. Encrypt.
2. Decrypt.
3. Set ignore character list.
4. Exit.
Enter your choice : 1
Enter plain text : MessageToBeEncrypted
Enter key : 4
Encrypted text : QiwwekiXsFiIrgvctxih
Do you want to decrypt (y/n) : y
Plain text : MessageToBeEncrypted

1. Encrypt.
2. Decrypt.
3. Set ignore character list.
4. Exit.
Enter your choice : 2
Enter encrypted text : QiwwekiXsFiIrgvctxih
Enter key : 4
Plain text : MessageToBeEncrypted

1. Encrypt.
2. Decrypt.
3. Set ignore character list.
4. Exit.
Enter your choice : 4
Exiting...
```

3. Transposition Cypher

```
1. Encrypt.
2. Decrypt.
3. Set ignore character list.
4. Exit.
Enter your choice : 1
Enter plain text : ThisIsAMessage
Enter key : 3
Encrypted text : TsAsghIMseiseaM
Do you want to decrypt (y/n) : y
Plain text : ThisIsAMessage

1. Encrypt.
2. Decrypt.
3. Set ignore character list.
4. Exit.
Enter your choice : 2
Enter encrypted text : TsAsghIMseiseaM
Enter plain text length : 14
Enter key : 3
Plain text : ThisIsAMessage

1. Encrypt.
2. Decrypt.
3. Set ignore character list.
4. Exit.
Enter your choice : 4
Exiting...
```

4. RailFence Cypher

```
1. Encrypt.
2. Decrypt.
3. Set ignore character list.
4. Exit.
Enter your choice : 1
Enter plain text : RailfenceEncryption
Enter key : 3
Encrypted text : RferialecEcytoinnpn
Do you want to decrypt (y/n) : y
Plain text : RailfenceEncryption

1. Encrypt.
2. Decrypt.
3. Set ignore character list.
4. Exit.
Enter your choice : 2
Enter encrypted text : RferialecEcytoinnpn
Enter key : 3
Plain text : RailfenceEncryption

1. Encrypt.
2. Decrypt.
3. Set ignore character list.
4. Exit.
Enter your choice : 4
Exiting...
```

5. Vigenère Cipher

```
1. Encrypt.
2. Decrypt.
3. Set ignore character list.
4. Exit.
Enter your choice : 1
Enter plain text : ComputerNetworking
Enter key text : THISISKEY
Encrypted text : VVUHCLOVLXAEGZCSRE
Do you want to decrypt (y/n) : y
Plain text : COMPUTERNETWORKING

1. Encrypt.
2. Decrypt.
3. Set ignore character list.
4. Exit.
Enter your choice : 2
Enter encrypted text : VVUHCLOVLXAEGZCSRE
Enter key text: thisiskey
Plain text : COMPUTERNETWORKING

1. Encrypt.
2. Decrypt.
3. Set ignore character list.
4. Exit.
Enter your choice : 4
Exiting...
```

6. Playfair Cypher

```
1. Encrypt.
2. Decrypt.
3. Set ignore character list.
4. Exit.
Enter your choice : 1
Enter plain text : instruments
Enter key text : monarchy
Encrypted text : gatlmzclrqtx
Do you want to decrypt (y/n) : y
Plain text : instrumentsz

1. Encrypt.
2. Decrypt.
3. Set ignore character list.
4. Exit.
Enter your choice : 2
Enter encrypted text : gatlmzclrqtx
Enter key text : monarchy
Plain text : instrumentsz

1. Encrypt.
2. Decrypt.
3. Set ignore character list.
4. Exit.
Enter your choice : 4
Exiting...
```


7. Server-Client with Substitution Cipher

server:

```
> ./serverEncryptionSubstitution
Server started...
Server listning...
New conection made, new_soc ? : 4
client(4) > WklvLvDPhvvdjh
Decrypted messsage using key value as 3 : ThisIsAMessage
Closed connection, new_socket(4)
```

client:

```
> ./clientEncryptionSubstitution
Enter message : ThisIsAMessage
Enter key : 3
Encrypted message : WklvLvDPhvvdjh
```

8. Server-Client with Rail-Fencing Cipher

server:

```
Server started...
Server listning...
New conection made, new_soc ? : 4
client(4) > TIeghssMsaeiAs
Decrypted messsage using key value as 3 : ThisIsAMessage
Closed connection, new_socket(4)
```

client:

```
> ./clientEncryptionRailfence
Enter message : ThisIsAMessage
Enter key : 3
Encrypted message : TIeghssMsaeiAs
```

9. Server-Client with Vigenère Cipher

server:

```
> ./serverEncryptionVigenere
Server started...
Server listning...
New conection made, new_soc ? : 4
client(4) > MSKIYQXBRCMALKUMLZ
Decrypted messsage using key text value as 'KEYTEXT' : COMPUTERNETWORKING
Closed connection, new_socket(4)
_
```

client:

```
> ./clientEncryptionVigenere
Enter message : ComputerNetworking
Enter key text: KEYTEXT
Encrypted message : MSKIYQXBRCMALKUMLZ
```

10. Client-Server-Multiple Client Broadcasting

server:

```
> ./serverBroadcast
Server started...
Server listning...
New conection made, new_soc ? : 4
New conection made, new_soc ? : 5
New conection made, new_soc ? : 6
client(4) > Hello form client 1
client(5) > Hello form client 2
client(6) > Hello form client 3
Closed connection, new_socket(4)
Closed connection, new_socket(5)
Closed connection, new_socket(6)
```

client:

```
5)
> ./clientBroadcast
Hello form client 1
Received message : Hello form client 1
Received message : Hello form client 2
Received message : Hello form client 3
^C
```

```
> ./clientBroadcast  
Received message : Hello form client 1  
Hello form client 2  
Received message : Hello form client 2  
Received message : Hello form client 3  
^C
```

```
> ./clientBroadcast  
Received message : Hello form client 1  
Received message : Hello form client 2  
Hello form client 3  
Received message : Hello form client 3  
^C
```

11. Check the Datatype of Input from the Client on Server

server:

```
> ./serverDataType
Server started...
Server listning...
New conection made, new_soc ? : 4
client(4) > Hello
Client message Is text.
Sending response
Closed connection, new_socket(4)
New conection made, new_soc ? : 4
client(4) > Hello&
Client message Is special.
Sending response
Closed connection, new_socket(4)
New conection made, new_soc ? : 4
client(4) > %
Client message Is special.
Sending response
Closed connection, new_socket(4)
New conection made, new_soc ? : 4
client(4) > 56
Client message Is integer.
Sending response
Closed connection, new_socket(4)
New conection made, new_soc ? : 4
client(4) > 56.4
Client message Is float.
Sending response
Closed connection, new_socket(4)
New conection made, new_soc ? : 4
client(4) > .68
Client message Is float.
Sending response
Closed connection, new_socket(4)
New conection made, new_soc ? : 4
client(4) > 6 AIR
Client message Is special.
Sending response
Closed connection, new_socket(4)
```

client:

```
> ./clientDataType
Enter message : Hello
Received message : Is text.

> ./clientDataType
Enter message : Hello&
Received message : Is special.

> ./clientDataType
Enter message : %
Received message : Is special.

> ./clientDataType
Enter message : 56
Received message : Is integer.

> ./clientDataType
Enter message : 56.4
Received message : Is float.

> ./clientDataType
Enter message : .68
Received message : Is float.

> ./clientDataType
Enter message : 6 AIR
Received message : Is special.
```