

```
C:\Windows\System32\cmd.e x + v

C:\Users\harsh jain\Desktop\CSS_Lab_Exp\Exp-3\socket>g++ server.cpp -o server -lws2_32 -lwsck32

C:\Users\harsh jain\Desktop\CSS_Lab_Exp\Exp-3\socket>.\server.exe
Server is listening on port 8080
New client connected. Total clients: 1
New client connected. Total clients: 2
|

C:\Windows\System32\cmd.e x + v

C:\Users\harsh jain\Desktop\CSS_Lab_Exp\Exp-3\socket>g++ alice.cpp -o alice -lws2_32 -lwsck32

C:\Users\harsh jain\Desktop\CSS_Lab_Exp\Exp-3\socket>.\alice.exe
Connected to server
Enter p:

C:\Windows\System32\cmd.e x + v

C:\Users\harsh jain\Desktop\CSS_Lab_Exp\Exp-3\socket>g++ bob.cpp -o bob -lws2_32 -lwsck32

C:\Users\harsh jain\Desktop\CSS_Lab_Exp\Exp-3\socket>.\bob.exe
Connected to server
Enter p:
```

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Server is listening on port 8080
New client connected. Total clients: 1
New client connected. Total clients: 2
Message received: Alice's Public Key: e=5 n=247
Message received: Bob's Public Key: e=7 n=391
|

C:\Windows\System32\cmd.e x + v

C:\Users\harsh jain\Desktop\CSS_Lab_Exp\Exp-3\socket>g++ alice.cpp -o alice -lws2_32 -lwsck32

C:\Users\harsh jain\Desktop\CSS_Lab_Exp\Exp-3\socket>.\alice.exe
Connected to server
Enter p: 13
Enter q: 19
Alice's Public Key: (e = 5, n = 247)
Alice's Private Key: (d = 173, n = 247)
Received Bob's Public Key: e=7 n=391

-----
Using Monoalphabetic Cipher as symmetric encryption
Map a with |

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C:\Users\harsh jain\Desktop\CSS_Lab_Exp\Exp-3\socket>.\bob.exe
Connected to server
Enter p: 17
Enter q: 23
Bob's Public Key: (e = 7, n = 391)
Bob's Private Key: (d = 151, n = 391)
Received Alice's Public Key: e=5 n=247
```

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|

C:\Windows\System32\cmd.e x + v

Map a with b
Map b with a
Map c with d
Map d with c
Map e with f
Map f with e
Map g with h
Map h with i
Map i with h
Map j with g
Map k with l
Map l with k
Map m with n

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Connected to server
Enter p: 17
Enter q: 23
Bob's Public Key: (e = 7, n = 391)
Bob's Private Key: (d = 151, n = 391)
Received Alice's Public Key: e=5 n=247
Received keyword for symmetric encryption: 72 109 127 74 221 50 315 147 315 375 133 333 236 250 90 291 160 309 346 276 186 59 86 238 28 26
Decrypted keyword: badcfehihglnmporqtsvuxwzy
```

```
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C:\Windows\System32\cmd.e x + v
Map m with n
Map n with m
Map o with p
Map p with o
Map q with r
Map r with q
Map s with t
Map t with s
Map u with v
Map v with u
Map w with x
Map x with w
Map y with z
Map z with y
```

```
C:\Windows\System32\cmd.e x + v
C:\Users\harsh jain\Desktop\CSS_Lab_Exp\Exp-3\socket>.\server.exe
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Message received: Bob's Public Key: e=7 n=391
Message received: 72 109 127 74 221 50 315 147 315 375 133 333 236 250 90 291 160 309 346 276 186 59 86 238 28 26
Message received: Ciphertext: ab
Message received: Ciphertext: zpvqobttxpqchtpmfsxpsiqff
Message received: Ciphertext: zpvqxbkkfsoqhubsfbccqfttthtzpvqcbfpeahqsi

C:\Windows\System32\cmd.e x + v
Map v with u
Map w with x
Map x with w
Map y with z
Map z with y

Enter plaintext (or 'exit' to quit): ba
Sent: Ciphertext: ab

Enter plaintext (or 'exit' to quit): yourpasswordisonetwothree
Sent: Ciphertext: zpvqobttxpqchtpmfsxpsiqff

C:\Windows\System32\cmd.e x + v
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Received Alice's Public Key: e=5 n=247
Received keyword for symmetric encryption: 72 109 127 74 221 50 315 147 315 375 133 333 236 250 90 291 160 309 346 276 186 59 86 238 28 26
Decrypted keyword: badcfehihglnmporqtsvuxwzy
Received: Ciphertext: ab
Decrypted plaintext: ba

Received: Ciphertext: zpvqobttxpqchtpmfsxpsiqff
Decrypted plaintext: yourpasswordisonetwothree
```

```
C:\Windows\System32\cmd.e x + v
New client connected. Total clients: 2
Message received: Alice's Public Key: e=5 n=247
Message received: Bob's Public Key: e=7 n=391
Message received: 72 109 127 74 221 50 315 147 315 375 133 333 236 250 90 291 160 309 346 276 186 59 86 238 28 26
Message received: Ciphertext: ab
Message received: Ciphertext: zpvqobttxpqchtpmfsxpsiqff
Message received: Ciphertext: zpvqxbkkfsoqhubsfbccqfttthtzpvqcbfpeahqsi
Message received: Ciphertext:
Client disconnected
Client disconnected

C:\Windows\System32\cmd.e x + v
C:\Users\harsh jain\Desktop\CSS_Lab_Exp\Exp-3\socket>

C:\Windows\System32\cmd.e x + v
C:\Users\harsh jain\Desktop\CSS_Lab_Exp\Exp-3\socket>
```

```
C:\Windows\System32\cmd.e x + -
-----
Enter plaintext (or 'exit' to quit): yourprivatekeyisharshjain
Sent: Ciphertext: zpvqoqjubsflfzjtgbqtgibjm
-----
Enter plaintext (or 'exit' to quit): yourwalletaddressisyourdateofbirth
Sent: Ciphertext: zpvqxbkkfbsbccqfttjtzpvqcbfpeajqsg
-----
Enter plaintext (or 'exit' to quit): youarehiredandyourdesktoppasswordisonetwothreemakesureyouattendthemeetingtonightorelseyouwillbefired
Sent: Ciphertext: zpvbqfgjqfcbmczpvqcftlspoobttxpqctjpmfjspxsgqffnblftvqfzpvbssfmcsgfnffsjmhspmjhgspqfktfzpvxjkkafejqfc
-----
Enter plaintext (or 'exit' to quit): exit
C:\Users\harsh jain\Desktop\CSS_Lab_Exp\Exp-3\socket>

C:\Windows\System32\cmd.e x + -
Microsoft Windows [Version 10.0.22631.4037]
(c) Microsoft Corporation. All rights reserved.

C:\Users\harsh jain\Desktop\CSS_Lab_Exp\Exp-3\socket>g++ bob.cpp -o bob -lws
2_32 -lwsoc32

C:\Users\harsh jain\Desktop\CSS_Lab_Exp\Exp-3\socket>.\bob.exe
Connected to server
Enter p: 17
Enter q: 23
Bob's Public Key: (e = 7, n = 391)
Bob's Private Key: (d = 151, n = 391)
Received Alice's Public Key: e=5 n=247
Received keyword for symmetric encryption: 72 109 127 74 221 50 315 375 387
147 133 333 236 250 90 291 160 309 346 276 186 59 86 238 28 26
Decrypted keyword: badcfeghjllknmporqtsvuxwzy
Received: Ciphertext: zpvqoqjubsflfzjtgbqtgibjm
Decrypted plaintext: yourprivatekeyisharshjain
-----
Received: Ciphertext: zpvqxbkkfbsbccqfttjtzpvqcbfpeajqsg
Decrypted plaintext: yourwalletaddressisyourdateofbirth
-----
Received: Ciphertext: zpvbqfgjqfcbmczpvqcftlspoobttxpqctjpmfjspxsgqffnblftvqfzpvbssfmcsgfnffsjmhspmjhgspqfktfzpvxjkkafejqfc
Decrypted plaintext: youarehiredandyourdesktoppasswordisonetwothreemakesureyouattendthemeetingtonightorelseyouwillbefired
-----

C:\Windows\System32\cmd.e x + -
-----
Enter plaintext (or 'exit' to quit): yourprivatekeyisharshjain
Sent: Ciphertext: zpvqoqjubsflfzjtgbqtgibjm
-----
Enter plaintext (or 'exit' to quit): yourwalletaddressisyourdateofbirth
Sent: Ciphertext: zpvqxbkkfbsbccqfttjtzpvqcbfpeajqsg
-----
Enter plaintext (or 'exit' to quit): youarehiredandyourdesktoppasswordisonetwothreemakesureyouattendthemeetingtonightorelseyouwillbefired
Sent: Ciphertext: zpvbqfgjqfcbmczpvqcftlspoobttxpqctjpmfjspxsgqffnblftvqfzpvbssfmcsgfnffsjmhspmjhgspqfktfzpvxjkkafejqfc
-----
Enter plaintext (or 'exit' to quit):
C:\Windows\System32\cmd.e x + -
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Received Alice's Public Key: e=5 n=247
Received keyword for symmetric encryption: 72 109 127 74 221 50 315 375 387
147 133 333 236 250 90 291 160 309 346 276 186 59 86 238 28 26
Decrypted keyword: badcfeghjllknmporqtsvuxwzy
Received: Ciphertext: zpvqoqjubsflfzjtgbqtgibjm
Decrypted plaintext: yourprivatekeyisharshjain
-----
Received: Ciphertext: zpvqxbkkfbsbccqfttjtzpvqcbfpeajqsg
Decrypted plaintext: yourwalletaddressisyourdateofbirth
-----
Received: Ciphertext: zpvbqfgjqfcbmczpvqcftlspoobttxpqctjpmfjspxsgqffnblftvqfzpvbssfmcsgfnffsjmhspmjhgspqfktfzpvxjkkafejqfc
Decrypted plaintext: youarehiredandyourdesktoppasswordisonetwothreemakesureyouattendthemeetingtonightorelseyouwillbefired
-----
```