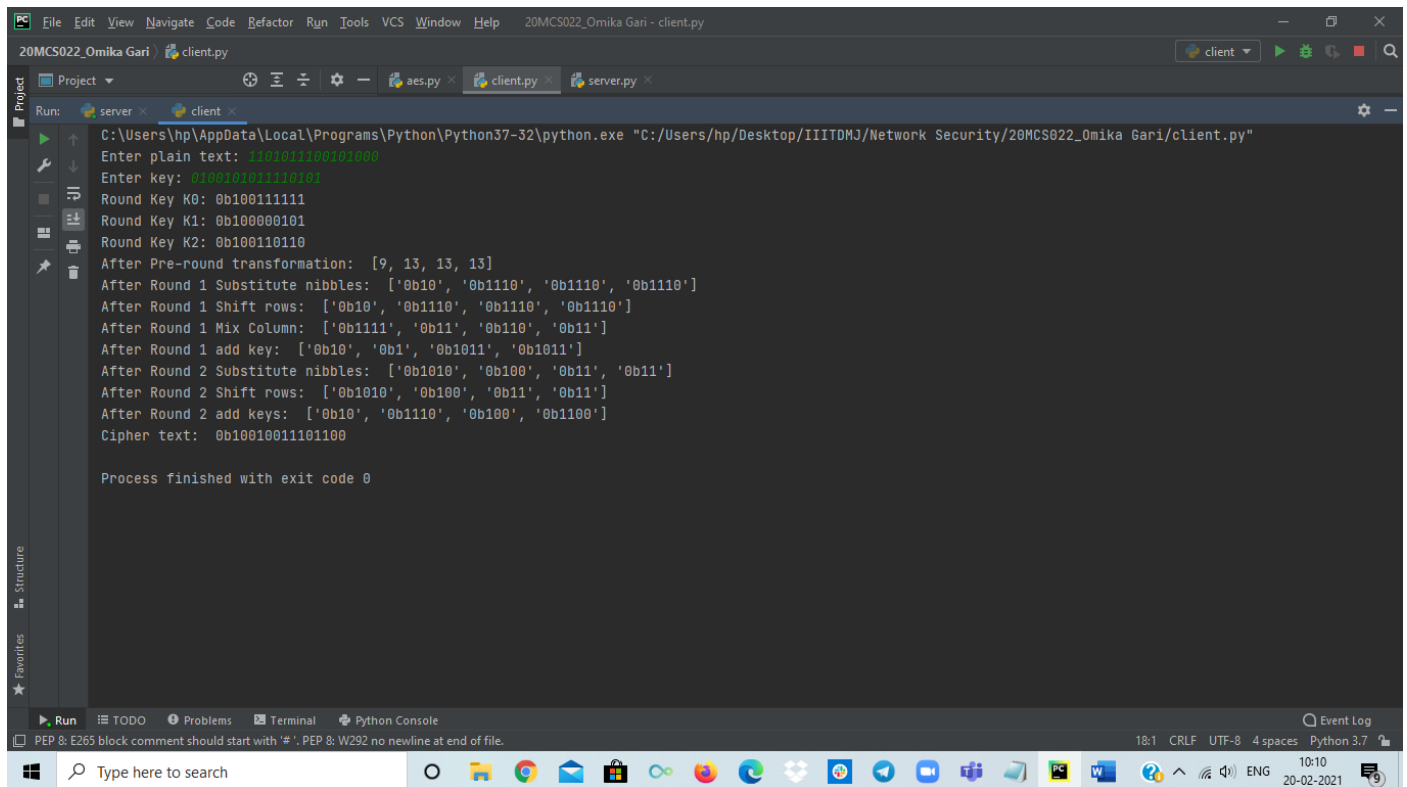


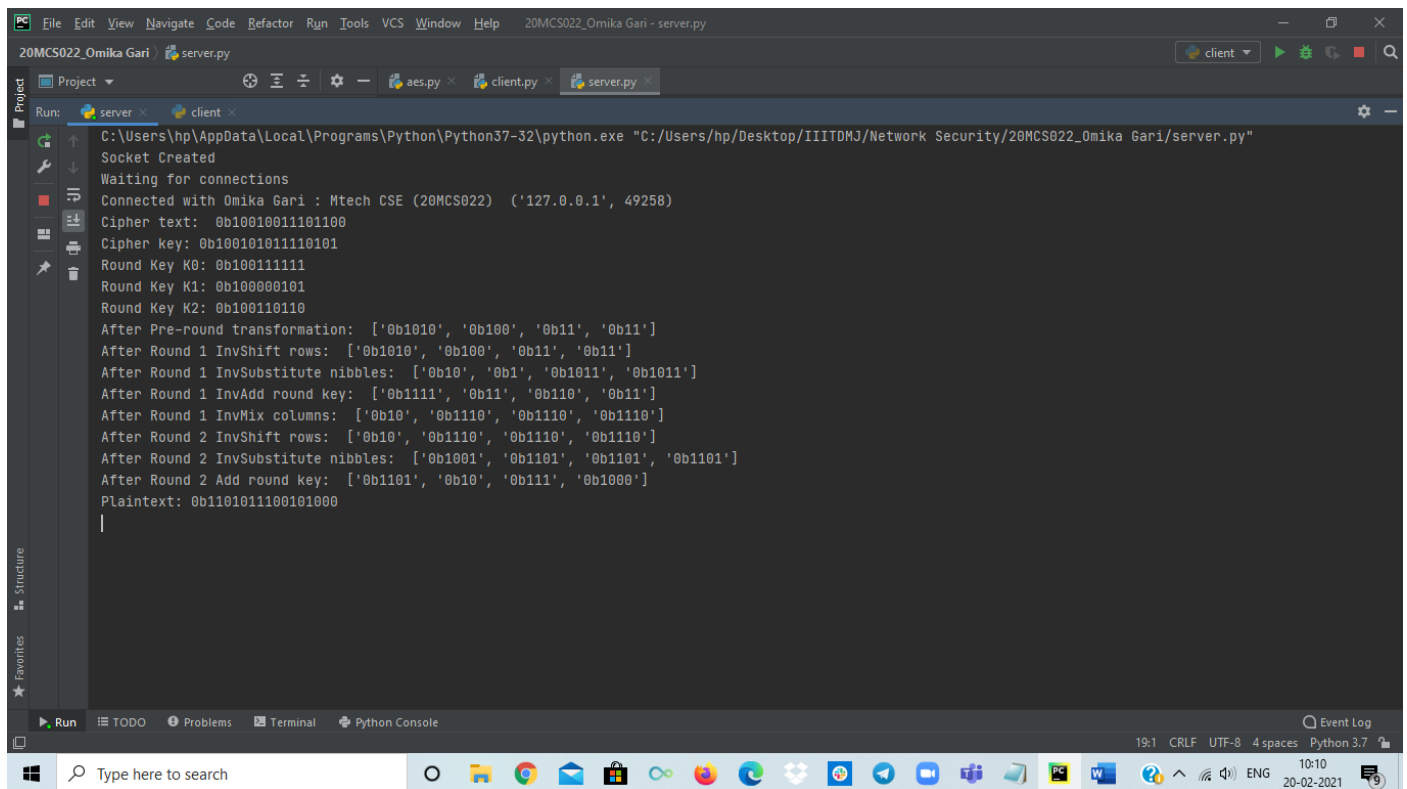
#Client



```
C:\Users\hp\AppData\Local\Programs\Python\Python37-32\python.exe "C:/Users/hp/Desktop/IIITDMJ/Network Security/20MCS022_Omika Gari/client.py"
Enter plain text: 110101100101000
Enter key: 010010101110101
Round Key K0: 0b100111111
Round Key K1: 0b100000101
Round Key K2: 0b100110110
After Pre-round transformation: [9, 13, 13, 13]
After Round 1 Substitute nibbles: ['0b10', '0b1110', '0b1110', '0b1110']
After Round 1 Shift rows: ['0b10', '0b1110', '0b1110', '0b1110']
After Round 1 Mix Column: ['0b1111', '0b11', '0b110', '0b11']
After Round 1 add key: ['0b10', '0b1', '0b1011', '0b1011']
After Round 2 Substitute nibbles: ['0b1010', '0b100', '0b11', '0b11']
After Round 2 Shift rows: ['0b1010', '0b100', '0b11', '0b11']
After Round 2 add keys: ['0b10', '0b1110', '0b100', '0b1100']
Cipher text: 0b10010011101100

Process finished with exit code 0
```

#Server



```
C:\Users\hp\AppData\Local\Programs\Python\Python37-32\python.exe "C:/Users/hp/Desktop/IIITDMJ/Network Security/20MCS022_Omika Gari/server.py"
Socket Created
Waiting for connections
Connected with Omika Gari : Mtech CSE (20MCS022) ('127.0.0.1', 49258)
Cipher text: 0b10010011101100
Cipher key: 0b10010101110101
Round Key K0: 0b100111111
Round Key K1: 0b100000101
Round Key K2: 0b100110110
After Pre-round transformation: ['0b1010', '0b100', '0b11', '0b11']
After Round 1 InvShift rows: ['0b1010', '0b100', '0b11', '0b11']
After Round 1 InvSubstitute nibbles: ['0b10', '0b1', '0b1011', '0b1011']
After Round 1 InvAdd round key: ['0b1111', '0b11', '0b110', '0b11']
After Round 1 InvMix columns: ['0b10', '0b1110', '0b1110', '0b1110']
After Round 2 InvShift rows: ['0b10', '0b1110', '0b1110', '0b1110']
After Round 2 InvSubstitute nibbles: ['0b1001', '0b1101', '0b1101', '0b1101']
After Round 2 Add round key: ['0b1101', '0b10', '0b111', '0b1000']
Plaintext: 0b1101011100101000
|
```