

## Figure 1

'Zoo'

```
r  
crr  
crr
```

'Xray'

```
b  
audb  
audb
```

'Rellis'

```
v  
uhoolv  
uhoolv
```

'College station'

```
froohjh vwdwlrq  
froohjh vwdwlrq
```

'Csci458'

```
none array char detected:  
fvfl485
```

## Figure 2

```
PS C:\Users\zenon\Desktop\Coding Projects\python code\lab2> python3  
.\\tcpserver.py  
waiting for a connetion on port 10000  
  
Got a connection from ('192.168.0.15', 55427)  
recieved: crr  
PS C:\Users\zenon\Desktop\Coding Projects\python code\lab2> |
```

```
PS C:\Users\zenon\Desktop\Coding Projects\python code\lab2> python  
3 .\\tcpclient.py  
192.168.0.15  
size of alphabetList= 26  
z  
indexLetter= 25  
newIndex= 2  
c  
c  
o  
indexLetter= 14  
newIndex= 17  
r  
crr  
o  
indexLetter= 14  
newIndex= 17  
r  
crr  
ECHO: crr  
PS C:\Users\zenon\Desktop\Coding Projects\python code\lab2> |
```

## Figure 3

'Zoo'

```
indexLetter= 14  
newIndex= 1  
b  
mbb
```

```
indexLetter= 1  
newIndex= 14  
o  
zoo
```

'Xray'

```
indexLetter= 24  
newIndex= 11  
l  
kenl
```

```
indexLetter= 11  
newIndex= 24  
y  
xray
```

'Rellis'

```
indexLetter= 18  
newIndex= 5  
f  
eryyvf
```

```
indexLetter= 5  
newIndex= 18  
s  
rellis
```

'College station'

```
pbyyrtr fgngvb  
n  
indexLetter= 13  
newIndex= 0  
a  
pbyyrtr fgngvba
```

```
indexLetter= 0  
newIndex= 13  
n  
college station
```

'Csci458'

```
pfpv45
8
none array char detected:
pfpv458
```

```
none array char detected:
csci458
```

## Client server call and response

```
colleg
h
indexLetter= 7
newIndex= 4
e
college
waiting for a connetion on port 10000

Got a connection from ('192.168.0.15', 55623)
recieved: mbb
size of alphabetList= 26
m
indexLetter= 12
newIndex= 25
z
z
b
indexLetter= 1
newIndex= 14
o
zo
b
indexLetter= 1
newIndex= 14
o
zoo
PS C:\Users\zenon\Desktop\Coding Projects\python code\lab2>

PS C:\Users\zenon\Desktop\Coding Projects\python code\lab2> python
3 .\tcpclient.py
192.168.0.15
size of alphabetList= 26
z
indexLetter= 25
newIndex= 12
m
m
o
indexLetter= 14
newIndex= 1
b
mb
o
indexLetter= 14
newIndex= 1
b
mbb
ECHO: mbb
PS C:\Users\zenon\Desktop\Coding Projects\python code\lab2>
```

Example with all parameters (spaces and numbers):

```
none array char detected:
college station123
4
none array char detected:
college station1234
5
none array char detected:
college station12345
PS C:\Users\zenon\Desktop\Coding Projects\python code\lab2>

pbyyrtr fgngvba123
4
none array char detected:
pbyyrtr fgngvba1234
5
none array char detected:
pbyyrtr fgngvba12345
ECHO: pbyyrtr fgngvba12345
PS C:\Users\zenon\Desktop\Coding Projects\python code\lab2>
```

## Figure 4

Zoo

```
ciphertext is: fuu
f
z
u
o
u
o
plaintext is: zoo
```

Xray

```
ciphertext is: wycn  
w  
x  
y  
r  
c  
a  
n  
y  
plaintext is: xray
```

Rellis

```
ciphertext is: yhpps  
y  
r  
h  
e  
p  
l  
p  
l  
s  
i  
j  
s  
plaintext is: rellis
```

College station

```
ciphertext is: iuppheh jqcqsuo
```

```
plaintext is: college station
```

Csci458

```
ciphertext is: ijis458
```

```
plaintext is: csci458
```

Figure 5

```
none array char detected:
zoo xray rellis college station
i
c
j
s
i
c
s
i
4
none array char detected:
zoo xray rellis college station csci4
5
none array char detected:
zoo xray rellis college station csci45
8
none array char detected:
zoo xray rellis college station csci458

zoo xray rellis college station csci458
c
i
s
j
c
i
i
s
4
none array char detected:
zoo xray rellis college station csci458
5
none array char detected:
zoo xray rellis college station csci458
8
none array char detected:
zoo xray rellis college station csci458
ECHO: fuu wycn yhpps j iuppheh jqcqsuo ijis458
```