

Question 1:-

```
Lab7 Final — server 4444 — 92x24
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./server 4444
[+]Server is active on [127.0.0.1: 4444]
```

Question 2:

```
Lab7 Final — server 4444 — 92x37
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./server 4444
[+]Server is active on [127.0.0.1: 4444]
[+]Connection accepted from 127.0.0.1:54621
[+]Connection accepted from 127.0.0.1:54623
[+]Connection accepted from 127.0.0.1:54624

Lab7 Final — client 127.0.0.1 4444 — 111x11
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[+]Connection Accepted!
[+]Enter any string, type exit if you want to disconnect

Lab7 Final — client 127.0.0.1 4444 — 111x11
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[+]Connection Accepted!
[+]Enter any string, type exit if you want to disconnect

Lab7 Final — client 127.0.0.1 4444 — 111x11
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[+]Connection Accepted!
[+]Enter any string, type exit if you want to disconnect
```

Question 3:

```
Lab7 Final — server 4444 — 92x37
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./server 4444
[+]Server is active on [127.0.0.1: 4444]
[+]Connection accepted from 127.0.0.1:54621
[+]Connection accepted from 127.0.0.1:54623
[+]Connection accepted from 127.0.0.1:54624
[+]Client with ip:port as 127.0.0.1:54621 sent : 1 tneilc ma l
[+]Client with ip:port as 127.0.0.1:54623 sent : 2 tneilc ma l
[+]Client with ip:port as 127.0.0.1:54624 sent : 3 tneilc ma l
[+]All clients have sent a message. Enter the message to send to all the clients:-

Lab7 Final — client 127.0.0.1 4444 — 111x11
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[+]Connection Accepted!
[+]Enter any string, type exit if you want to disconnect
I am client 1

Lab7 Final — client 127.0.0.1 4444 — 111x11
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[+]Connection Accepted!
[+]Enter any string, type exit if you want to disconnect
I am client 2

Lab7 Final — client 127.0.0.1 4444 — 111x11
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[+]Connection Accepted!
[+]Enter any string, type exit if you want to disconnect
I am client 3
```

Question 4:

```
Lab7 Final — server 4444 — 92x37
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./server 4444
[+]Server is active on [127.0.0.1: 4444]
[+]Connection accepted from 127.0.0.1:54621
[+]Connection accepted from 127.0.0.1:54623
[+]Connection accepted from 127.0.0.1:54624
[+]Client with ip:port as 127.0.0.1:54621 sent : 1 tneilc ma I
[+]Client with ip:port as 127.0.0.1:54623 sent : 2 tneilc ma I
[+]Client with ip:port as 127.0.0.1:54624 sent : 3 tneilc ma I
[+]All clients have sent a message. Enter the message to send to all the clients:-
this is a broadcast message, I love my clients <3

Lab7 Final — client 127.0.0.1 4444 — 111x11
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[+]Connection Accepted!
[+]Enter any string, type exit if you want to disconnect
I am client 1
[+] Server sent this broadcast : 3< stneilc ym evol I ,egassem esacdaorb a si siht
[+]Enter any string, type exit if you want to disconnect

Lab7 Final — client 127.0.0.1 4444 — 111x11
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[+]Connection Accepted!
[+]Enter any string, type exit if you want to disconnect
I am client 2
[+] Server sent this broadcast : 3< stneilc ym evol I ,egassem esacdaorb a si siht
[+]Enter any string, type exit if you want to disconnect

Lab7 Final — client 127.0.0.1 4444 — 111x11
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[+]Connection Accepted!
[+]Enter any string, type exit if you want to disconnect
I am client 3
[+] Server sent this broadcast : 3< stneilc ym evol I ,egassem esacdaorb a si siht
[+]Enter any string, type exit if you want to disconnect
```

Question 5:

```
Lab7 Final — server 4444 — 92x37
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./server 4444
[+]Server is active on [127.0.0.1: 4444]
[+]Connection accepted from 127.0.0.1:54621
[+]Connection accepted from 127.0.0.1:54623
[+]Connection accepted from 127.0.0.1:54624
[+]Client with ip:port as 127.0.0.1:54621 sent : 1 tneilc ma I
[+]Client with ip:port as 127.0.0.1:54623 sent : 2 tneilc ma I
[+]Client with ip:port as 127.0.0.1:54624 sent : 3 tneilc ma I
[+]All clients have sent a message. Enter the message to send to all the clients:-
this is a broadcast message, I love my clients <3

Lab7 Final — client 127.0.0.1 4444 — 111x11
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[+]Connection Accepted!
[+]Enter any string, type exit if you want to disconnect
I am client 1
[+] Server sent this broadcast : 3< stneilc ym evol I ,egassem esacdaorb a si siht
[+]Enter any string, type exit if you want to disconnect
```

Question 6:

```
Lab7 Final — server 4444 — 92x37
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./server 4444
[+]Server is active on [127.0.0.1: 4444]
[+]Connection accepted from 127.0.0.1:54621
[+]Connection accepted from 127.0.0.1:54623
[+]Connection accepted from 127.0.0.1:54624
[+]Client with ip:port as 127.0.0.1:54621 sent : 1 tneilc ma I
[+]Client with ip:port as 127.0.0.1:54623 sent : 2 tneilc ma I
[+]Client with ip:port as 127.0.0.1:54624 sent : 3 tneilc ma I
[+]All clients have sent a message. Enter the message to send to all the clients:-
this is a broadcast message, I love my clients <3
[+]Client with ip:port as 127.0.0.1:54621 has safely exited
[+]Client with ip:port as 127.0.0.1:54623 has safely exited
[+]Client with ip:port as 127.0.0.1:54624 has safely exited

Lab7 Final — zsh — 111x11
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[+]Connection Accepted!
[+]Enter any string, type exit if you want to disconnect
I am client 1
[+] Server sent this broadcast : 3< stneilc ym evol I ,egassem esacdaorb a si siht
[+]Enter any string, type exit if you want to disconnect
exit
(base) kunalkariwala@Lmaoo-1 Lab7 Final %

Lab7 Final — zsh — 111x11
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[+]Connection Accepted!
[+]Enter any string, type exit if you want to disconnect
I am client 2
[+] Server sent this broadcast : 3< stneilc ym evol I ,egassem esacdaorb a si siht
[+]Enter any string, type exit if you want to disconnect
exit
(base) kunalkariwala@Lmaoo-1 Lab7 Final %

Lab7 Final — zsh — 111x11
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[+]Connection Accepted!
[+]Enter any string, type exit if you want to disconnect
I am client 3
[+] Server sent this broadcast : 3< stneilc ym evol I ,egassem esacdaorb a si siht
[+]Enter any string, type exit if you want to disconnect
exit
(base) kunalkariwala@Lmaoo-1 Lab7 Final %
```

Question 7:

```
Lab7 Final — server 4444 — 92x24
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./server 4444
[+]Server is active on [127.0.0.1: 4444]
[+]Connection accepted from 127.0.0.1:54642
[+]Connection accepted from 127.0.0.1:54643
[+]Connection accepted from 127.0.0.1:54648
[+]Connection accepted from 127.0.0.1:54649
[]

Lab7 Final — client 127.0.0.1 4444 — 111x11
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[+]Connection Accepted!
[+]Enter any string, type exit if you want to disconnect
[]

Lab7 Final — client 127.0.0.1 4444 — 111x11
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[+]Connection Accepted!
[+]Enter any string, type exit if you want to disconnect
[]

Lab7 Final — client 127.0.0.1 4444 — 92x10
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[+]Connection Accepted!
[+]Enter any string, type exit if you want to disconnect
[]

Lab7 Final — client 127.0.0.1 4444 — 111x10
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[+]Connection Accepted!
[+]Enter any string, type exit if you want to disconnect
[]

Lab7 Final — -zsh — 92x16
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[-]Connection refused! Server is full
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[-]Connection refused! Server is full
(base) kunalkariwala@Lmaoo-1 Lab7 Final % []

Lab7 Final — -zsh — 111x16
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[-]Connection refused! Server is full
(base) kunalkariwala@Lmaoo-1 Lab7 Final % []
```

It accepts a connection request from clients 1,2,3,4 but rejects and closes the connection request from clients 5 and 6.

```
Lab7 Final — server 4444 — 92x24
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./server 4444
[+]Server is active on [127.0.0.1: 4444]
[+]Connection accepted from 127.0.0.1:54642
[+]Connection accepted from 127.0.0.1:54643
[+]Connection accepted from 127.0.0.1:54648
[+]Connection accepted from 127.0.0.1:54649
[+]Client with ip:port as 127.0.0.1:54642 has safely exited
[+]Client with ip:port as 127.0.0.1:54643 has safely exited
[+]Connection accepted from 127.0.0.1:54656
[+]Connection accepted from 127.0.0.1:54657
[]

Lab7 Final — -zsh — 111x11
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[+]Connection Accepted!
[+]Enter any string, type exit if you want to disconnect
exit
(base) kunalkariwala@Lmaoo-1 Lab7 Final % []

Lab7 Final — -zsh — 111x11
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[+]Connection Accepted!
[+]Enter any string, type exit if you want to disconnect
exit
(base) kunalkariwala@Lmaoo-1 Lab7 Final % []

Lab7 Final — client 127.0.0.1 4444 — 92x10
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[+]Connection Accepted!
[+]Enter any string, type exit if you want to disconnect
[]

Lab7 Final — client 127.0.0.1 4444 — 111x10
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[+]Connection Accepted!
[+]Enter any string, type exit if you want to disconnect
[]

Lab7 Final — client 127.0.0.1 4444 — 92x16
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[-]Connection refused! Server is full
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[-]Connection refused! Server is full
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[+]Connection Accepted!
[+]Enter any string, type exit if you want to disconnect
[]

Lab7 Final — client 127.0.0.1 4444 — 111x16
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[-]Connection refused! Server is full
(base) kunalkariwala@Lmaoo-1 Lab7 Final % ./client 127.0.0.1 4444
[+]Connection Accepted!
[+]Enter any string, type exit if you want to disconnect
[]
```

After clients 1 and 2 exit, there is space for 2 more clients now. Therefore, it accepts clients 5 and 6.