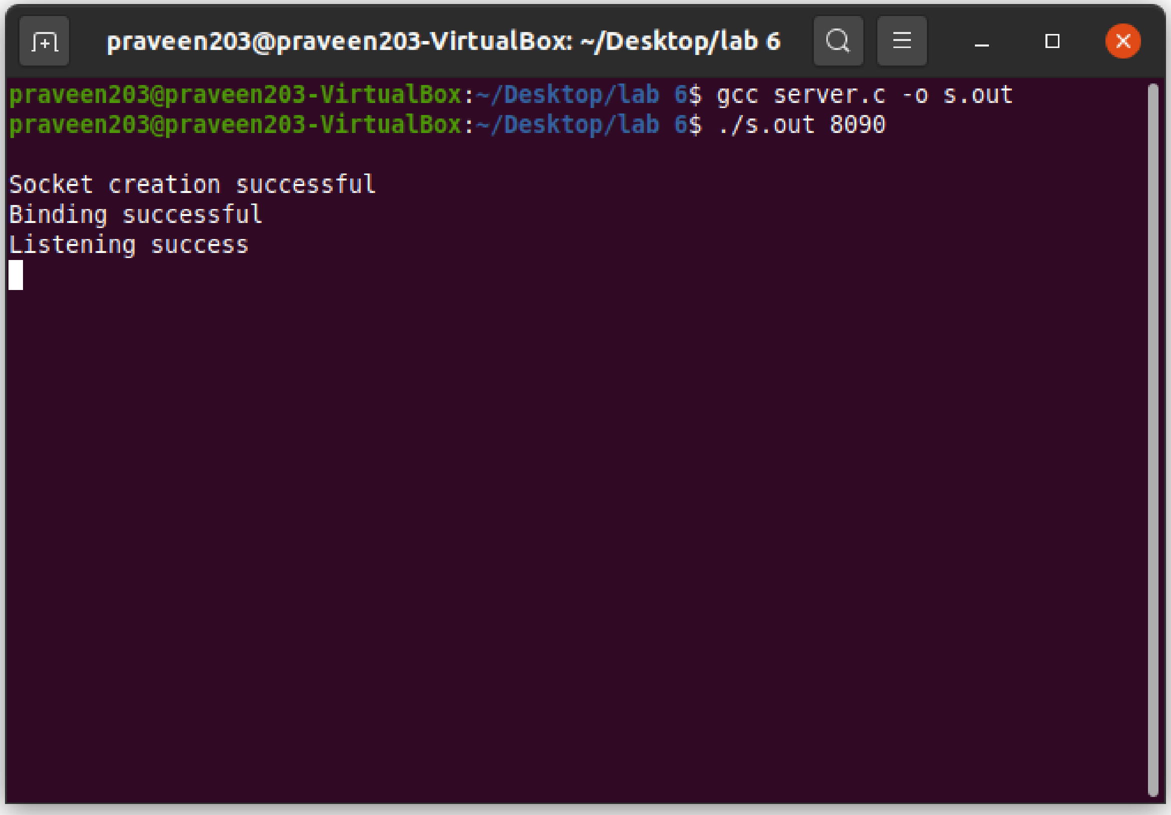
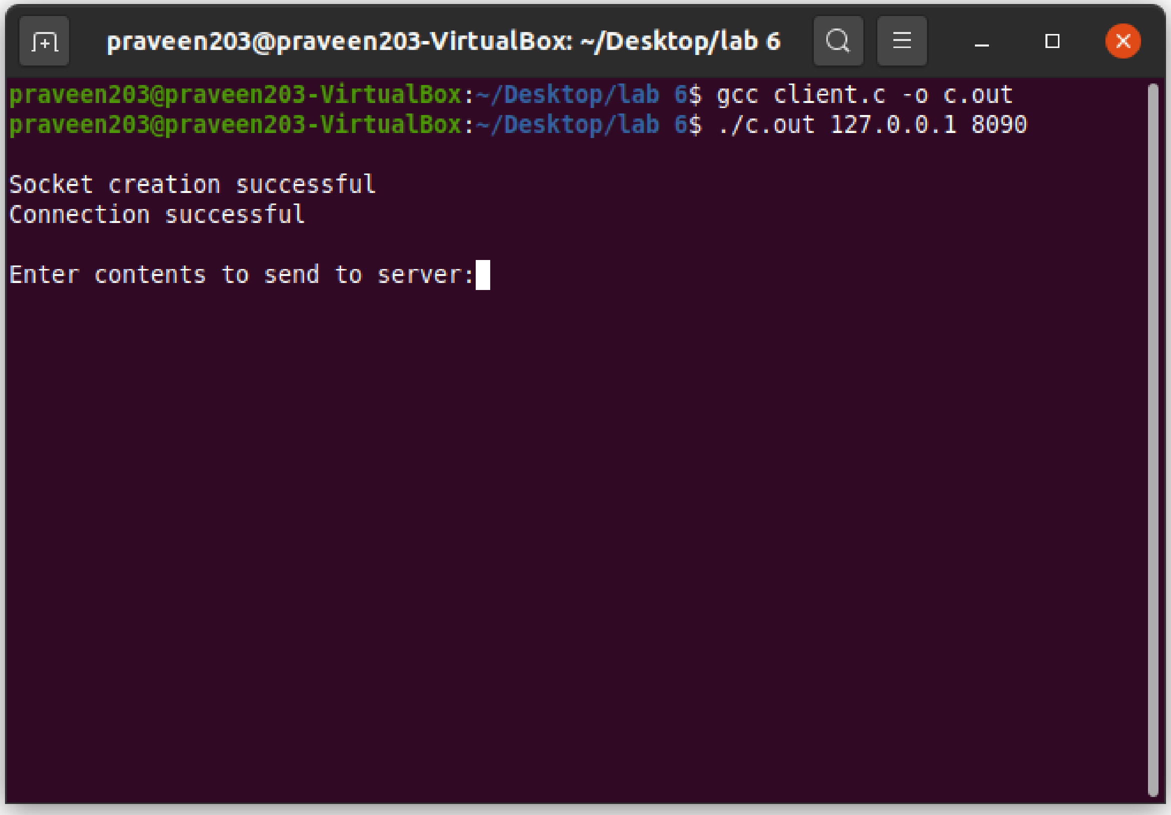
Computer networks lab 6

1. Server creation and waiting for clients:



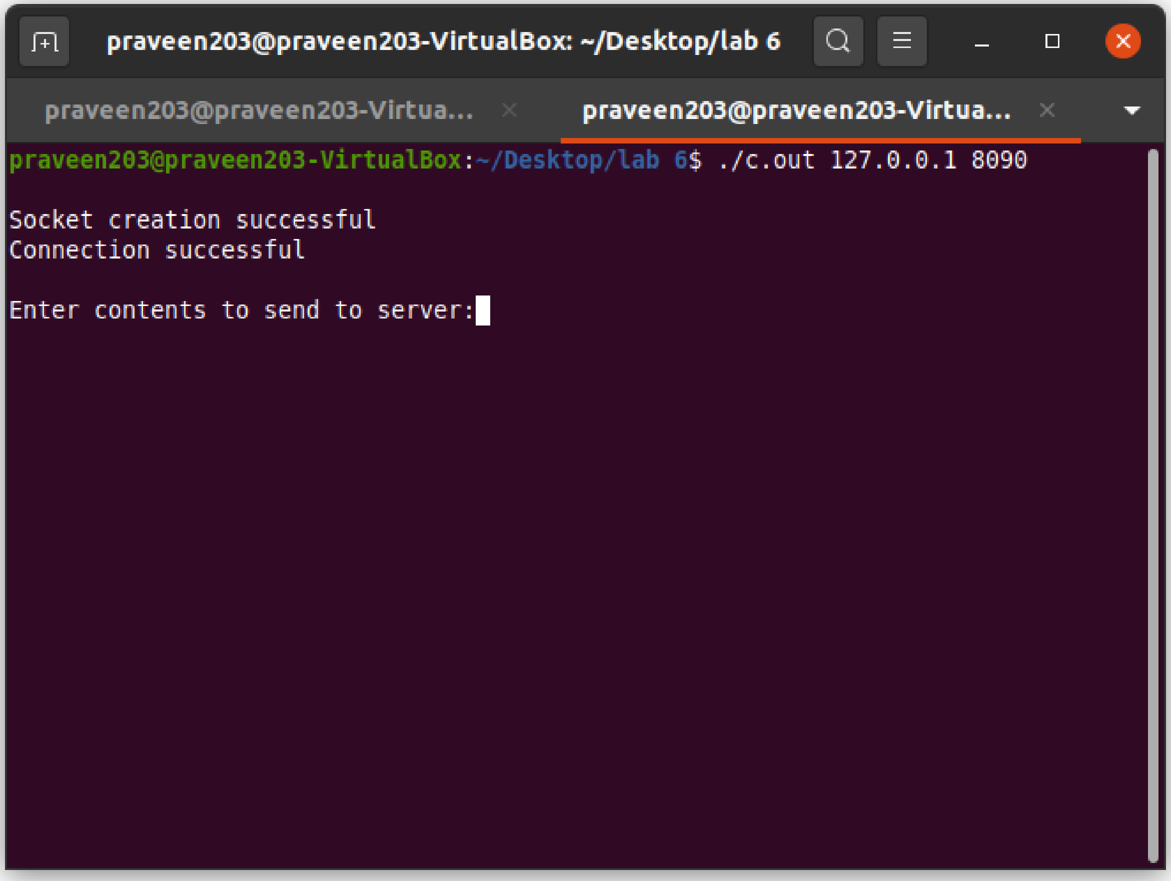
```
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ gcc server.c -o s.out
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ ./s.out 8090

Socket creation successful
Binding successful
Listening success
```

2. Client creation and joining server:



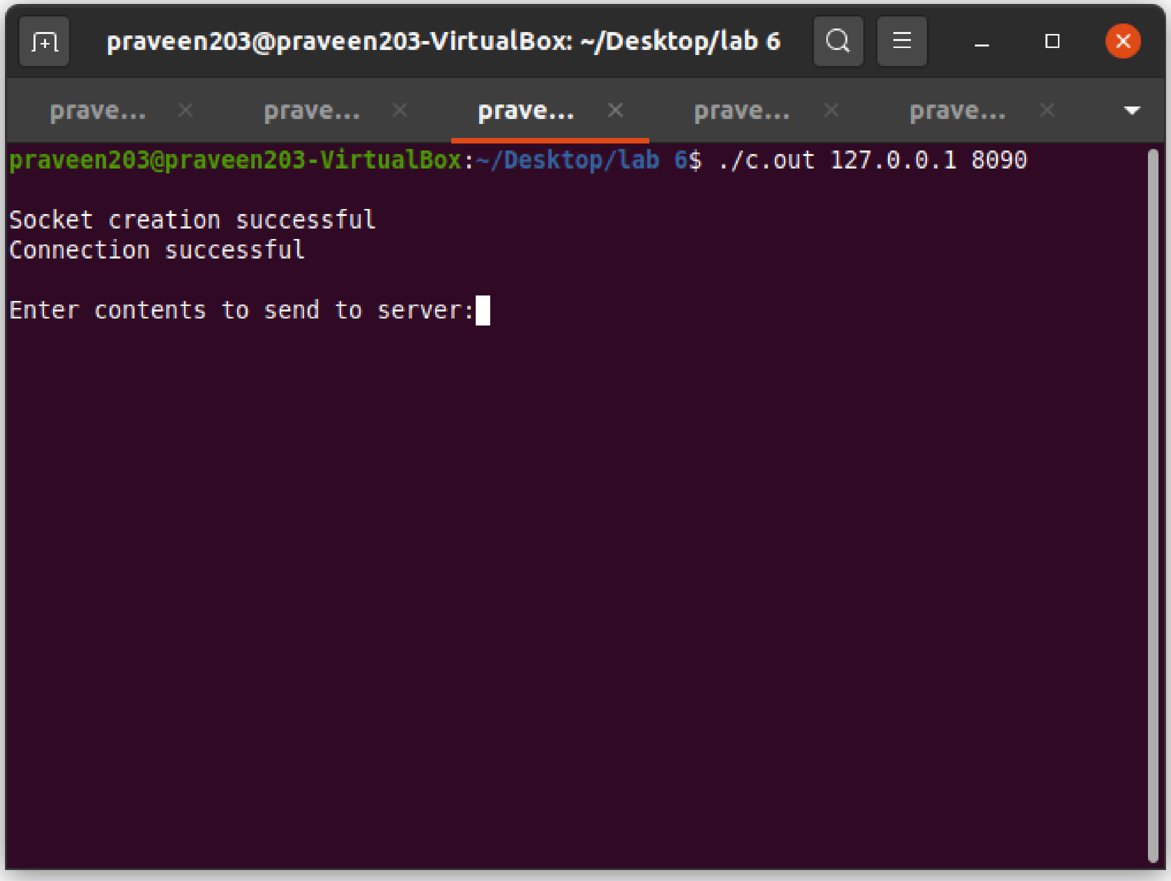
```
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ gcc client.c -o c.out
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ ./c.out 127.0.0.1 8090

Socket creation successful
Connection successful

Enter contents to send to server:
```

3. Client 2 joining server:


praveen203@praveen203-VirtualBox: ~/Desktop/lab 6
praveen203@praveen203-Virtua...
praveen203@praveen203-Virtua...

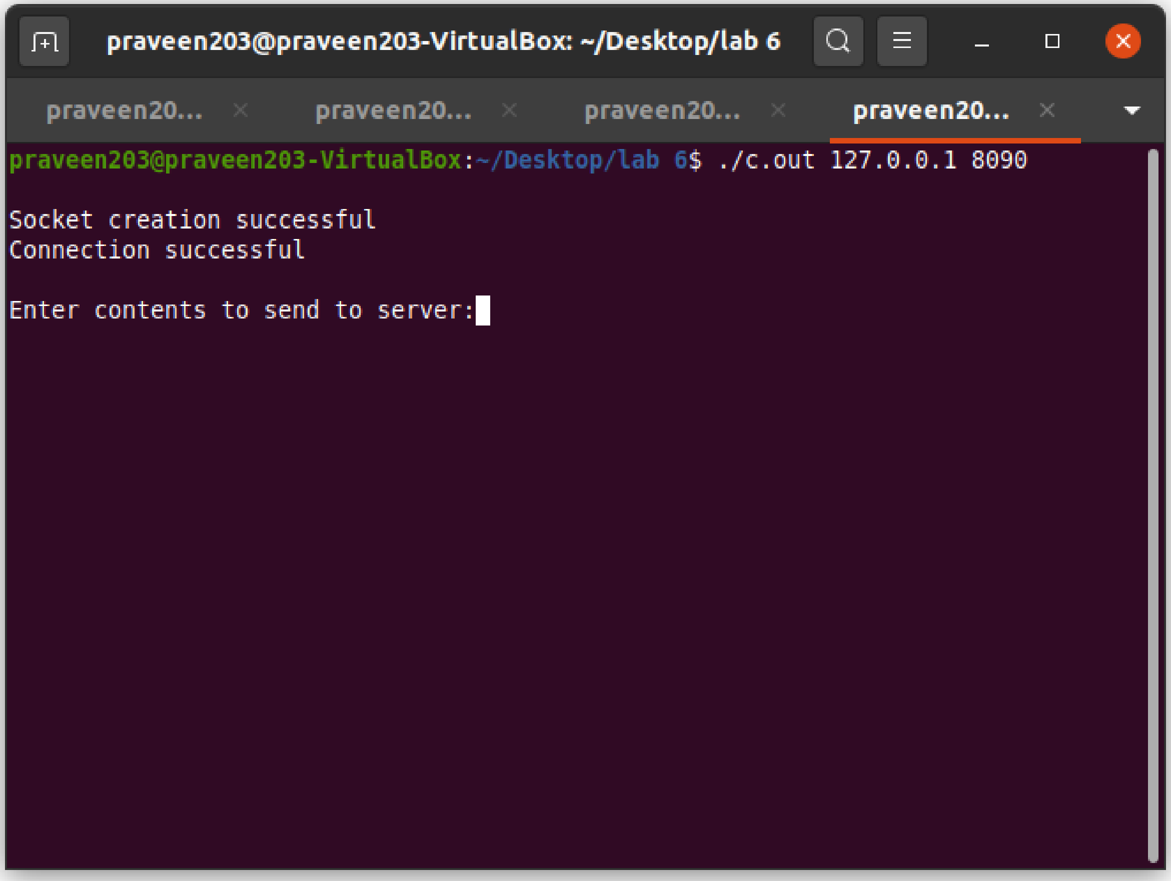
```
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ ./c.out 127.0.0.1 8090

Socket creation successful
Connection successful

Enter contents to send to server:
```

4. Client 3 joining server:



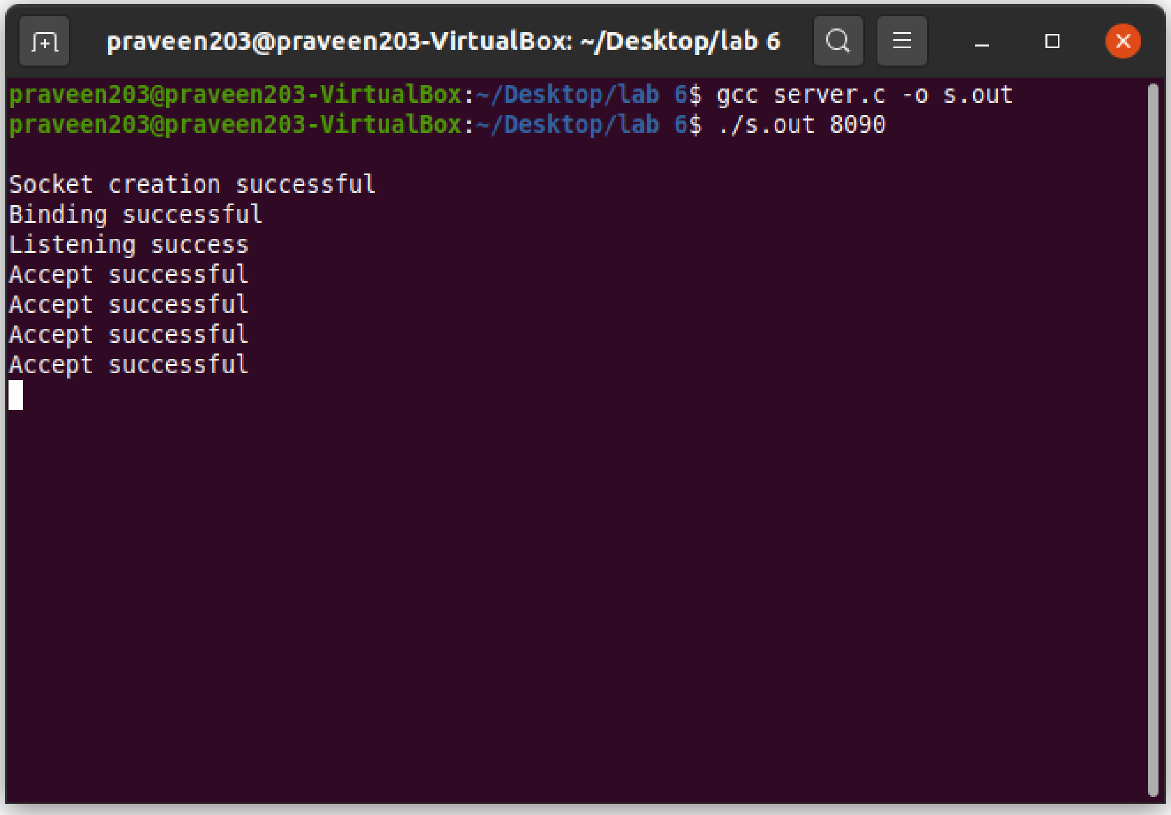
```
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ ./c.out 127.0.0.1 8090

Socket creation successful
Connection successful

Enter contents to send to server:
```

5. Client 4 joining server:



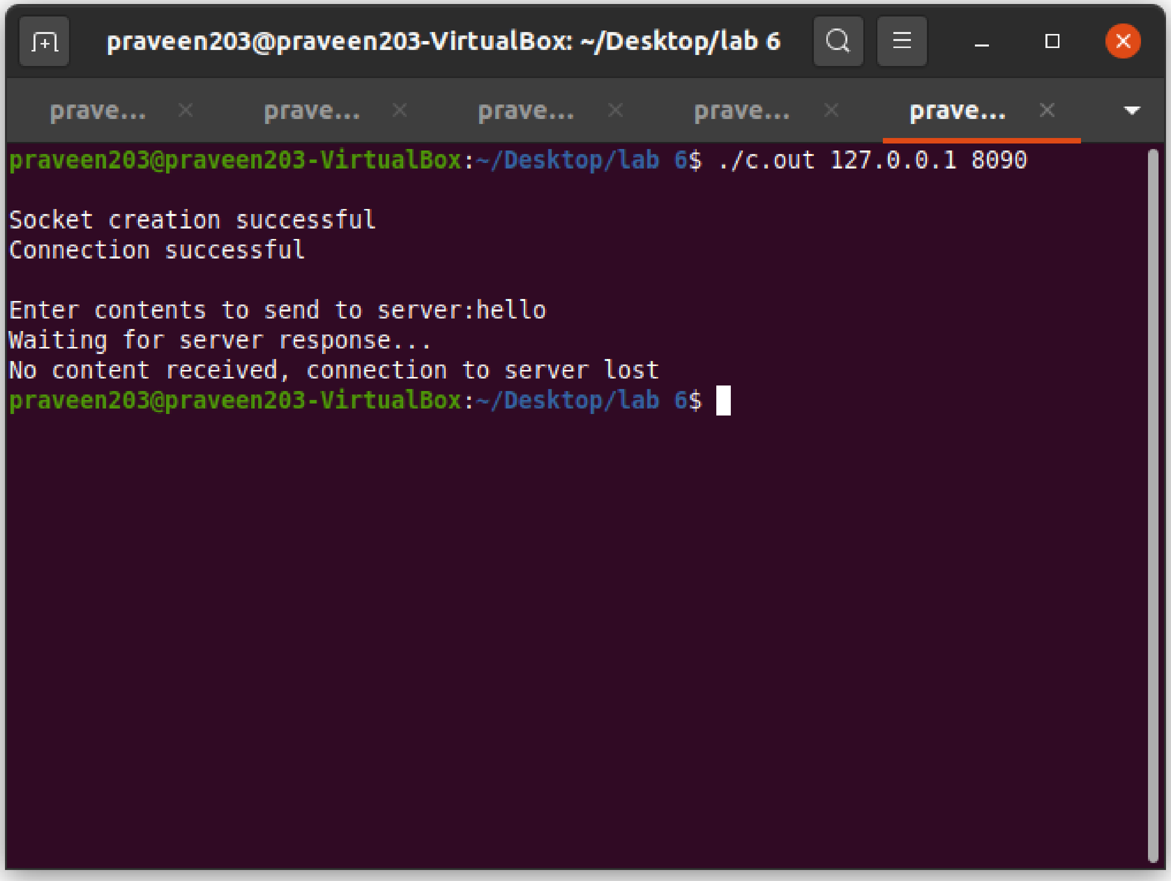
```
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ ./c.out 127.0.0.1 8090

Socket creation successful
Connection successful

Enter contents to send to server:
```

6. Server accepting all clients (because number of clients less than 4):



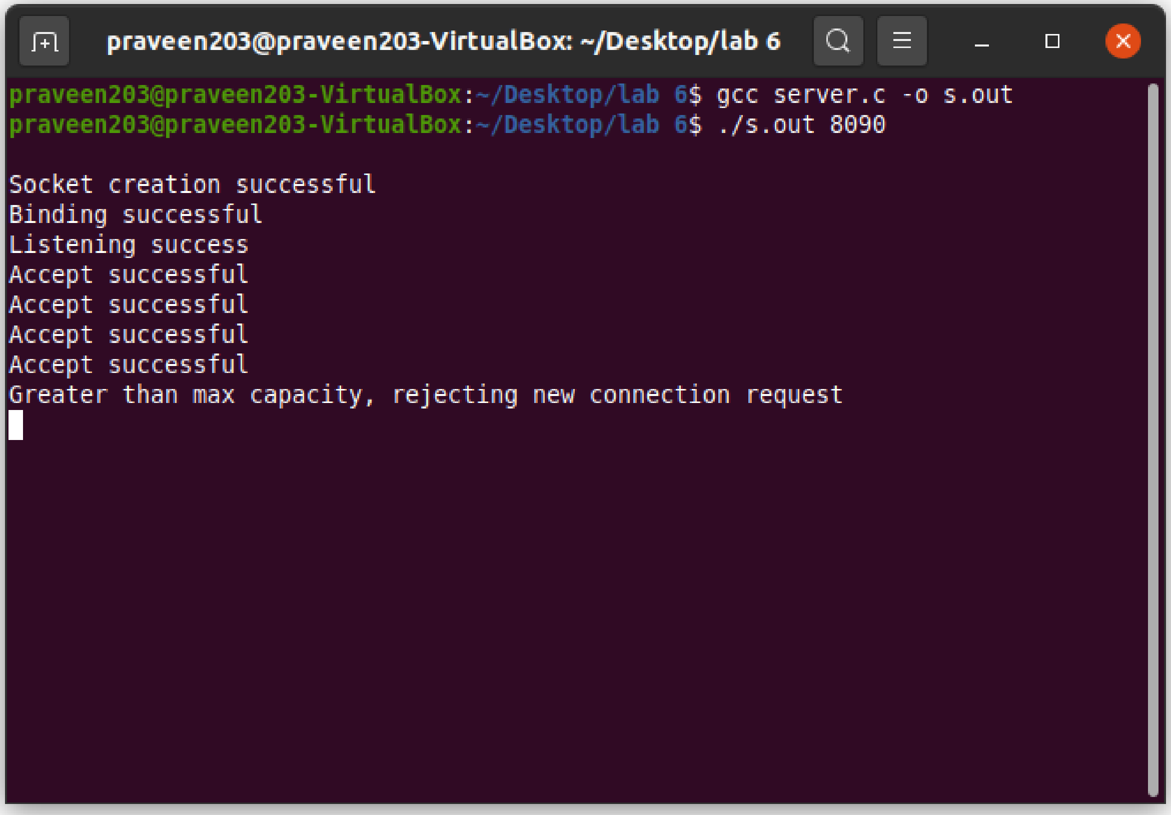
```
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ gcc server.c -o s.out
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ ./s.out 8090

Socket creation successful
Binding successful
Listening success
Accept successful
Accept successful
Accept successful
Accept successful
```

7. 5th client trying to join server and getting rejected:



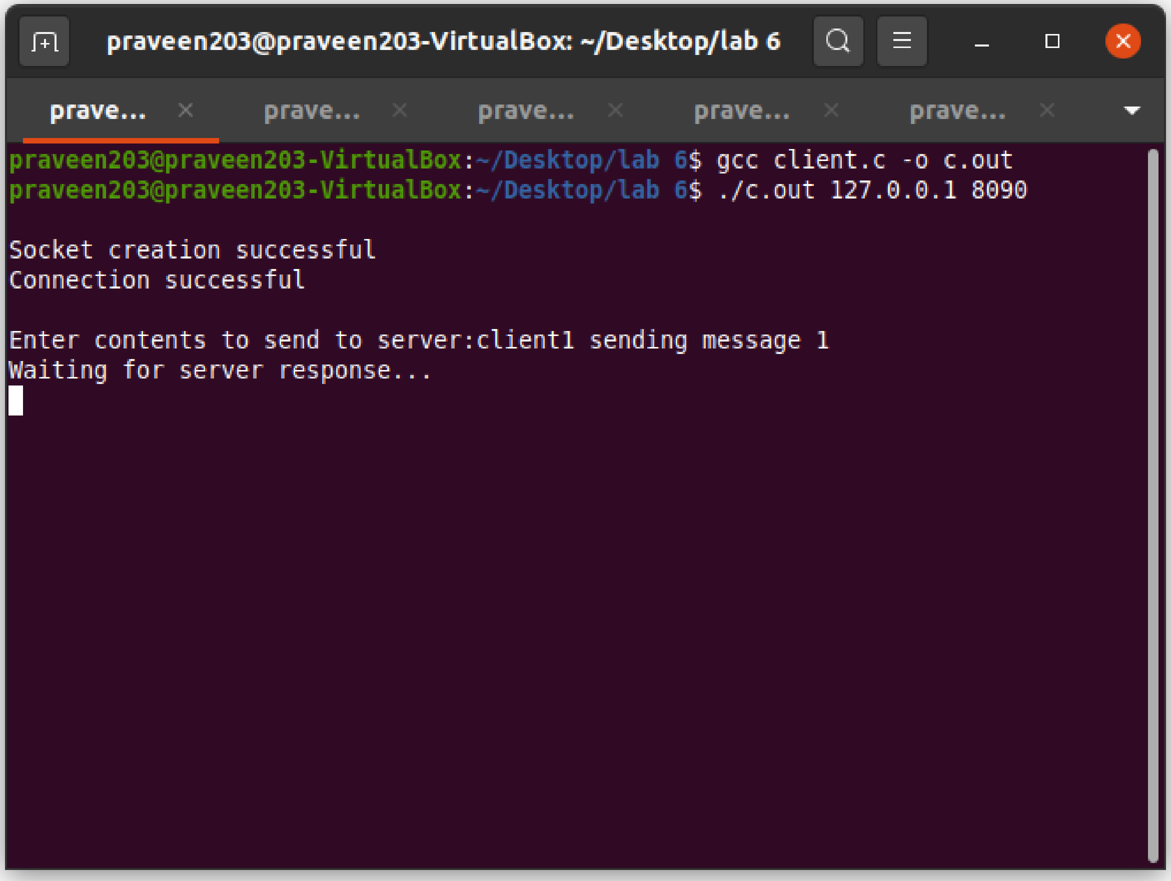
```
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ ./c.out 127.0.0.1 8090

Socket creation successful
Connection successful

Enter contents to send to server:hello
Waiting for server response...
No content received, connection to server lost
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ 
```

8. Server rejecting the 5th client:



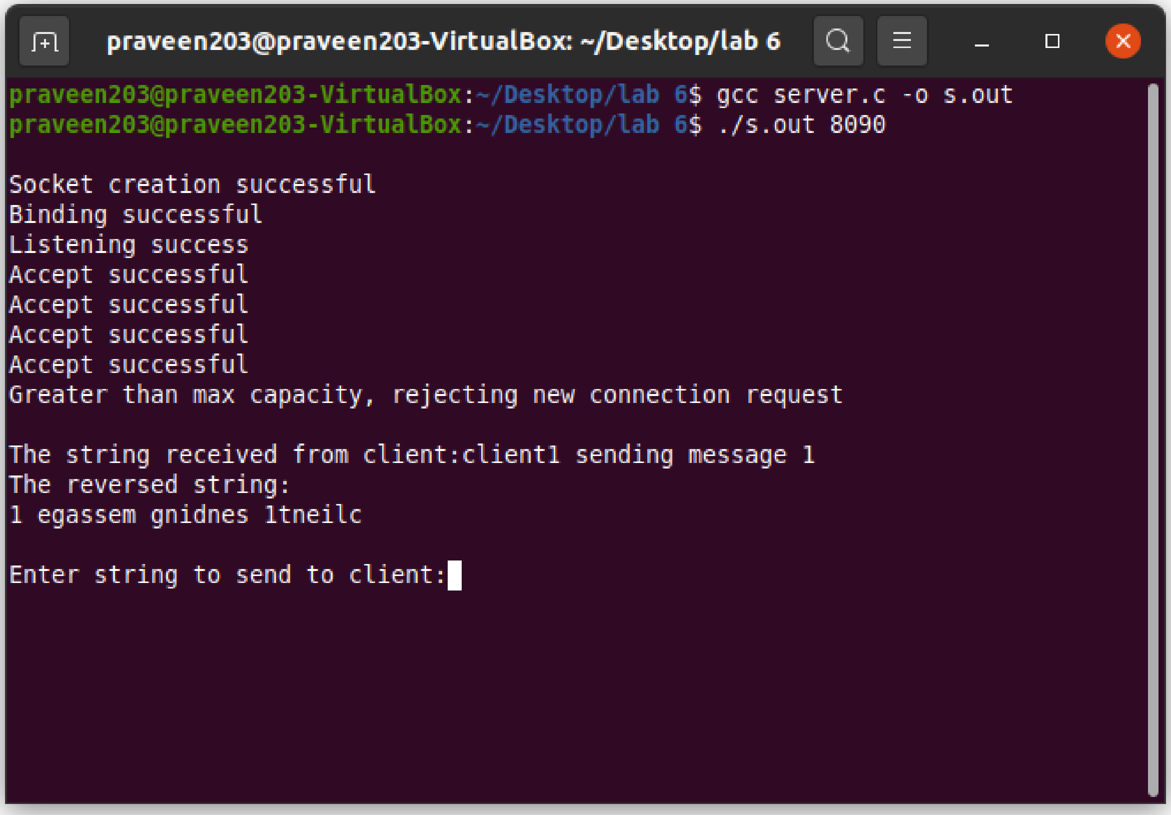
```
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ gcc server.c -o s.out
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ ./s.out 8090

Socket creation successful
Binding successful
Listening success
Accept successful
Accept successful
Accept successful
Accept successful
Greater than max capacity, rejecting new connection request
```

9. Client 1 sending a message to the server:



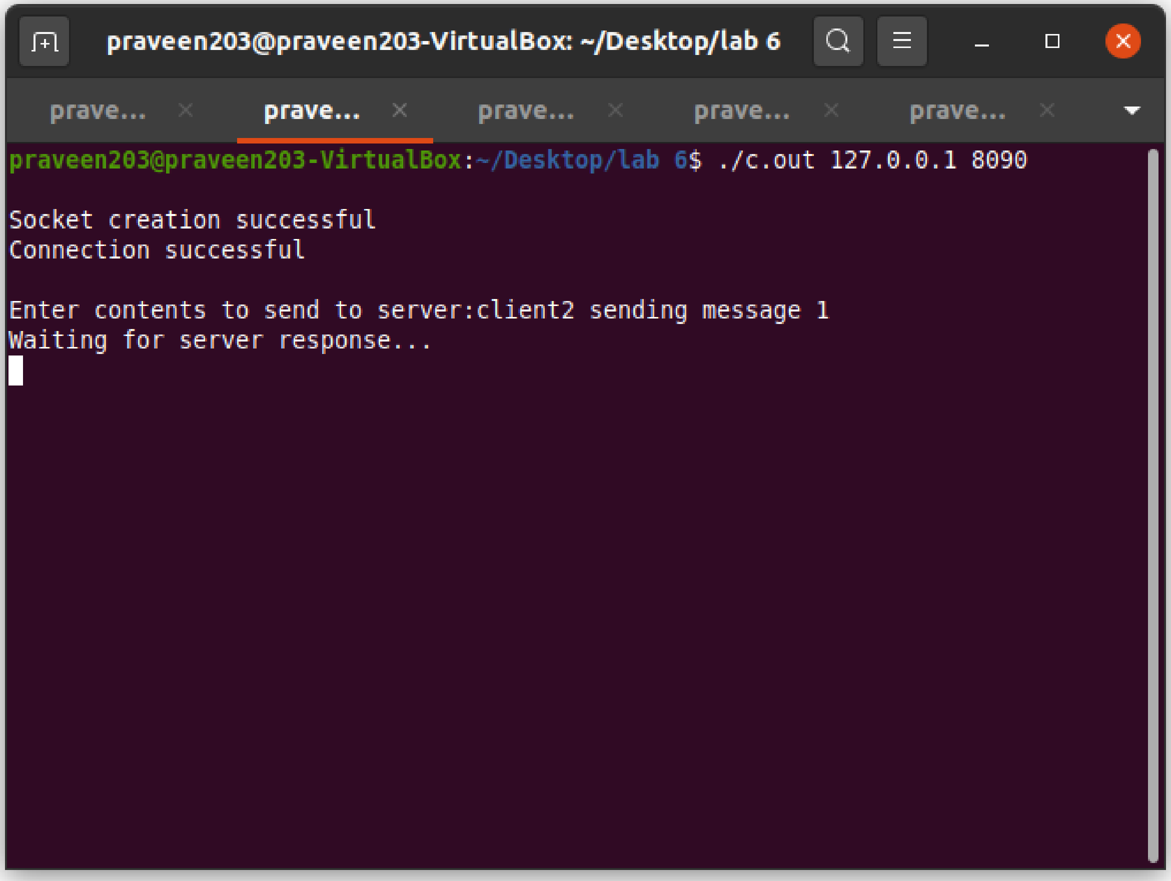
```
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ gcc client.c -o c.out
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ ./c.out 127.0.0.1 8090

Socket creation successful
Connection successful

Enter contents to send to server:client1 sending message 1
Waiting for server response...
```

10. Server receiving the message and printing it reversed:



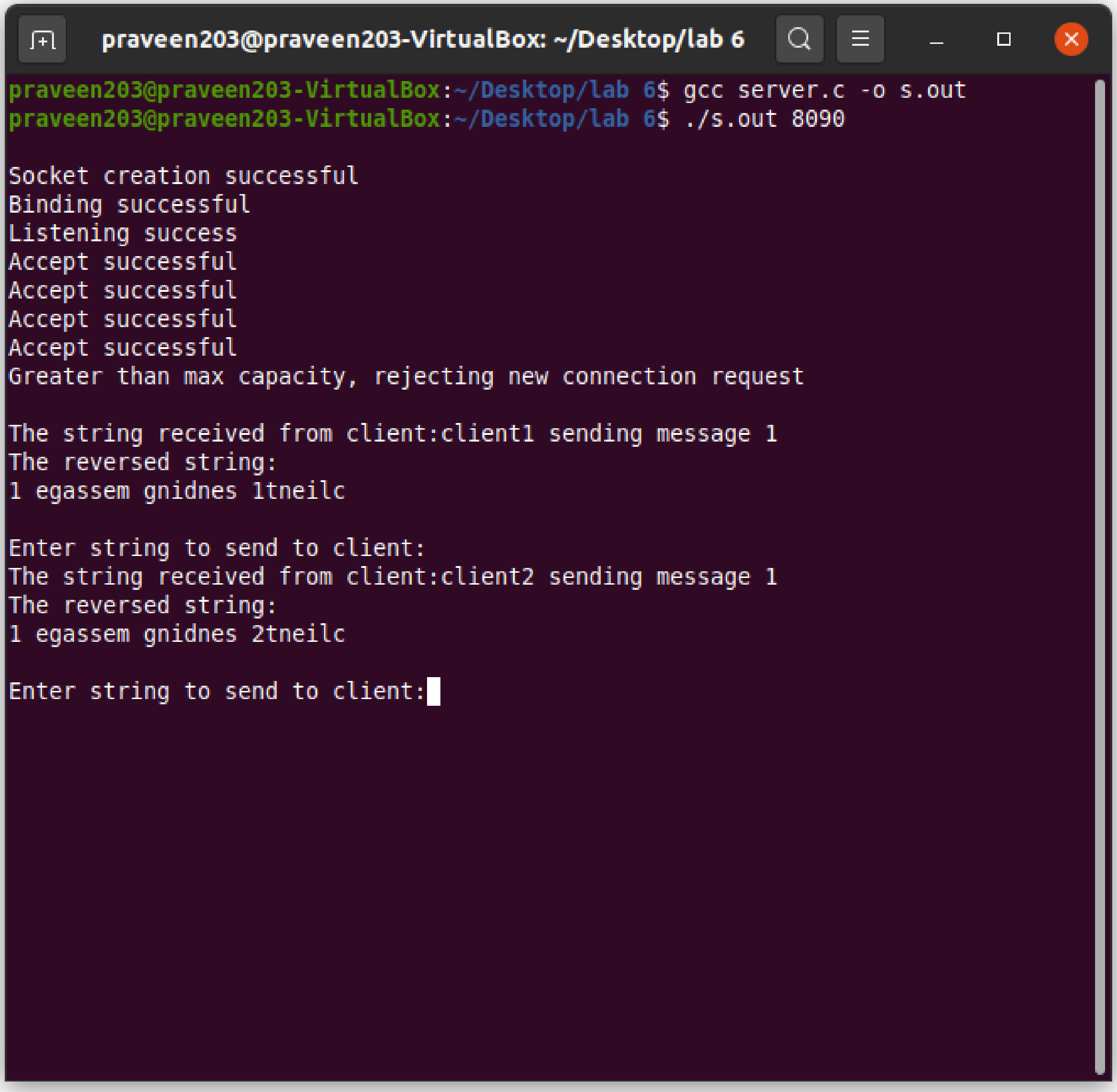
```
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ gcc server.c -o s.out
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ ./s.out 8090

Socket creation successful
Binding successful
Listening success
Accept successful
Accept successful
Accept successful
Accept successful
Greater than max capacity, rejecting new connection request

The string received from client:client1 sending message 1
The reversed string:
1 egassem gnidnes 1tneilc

Enter string to send to client:
```

11. Client 2 sending a message to the server:



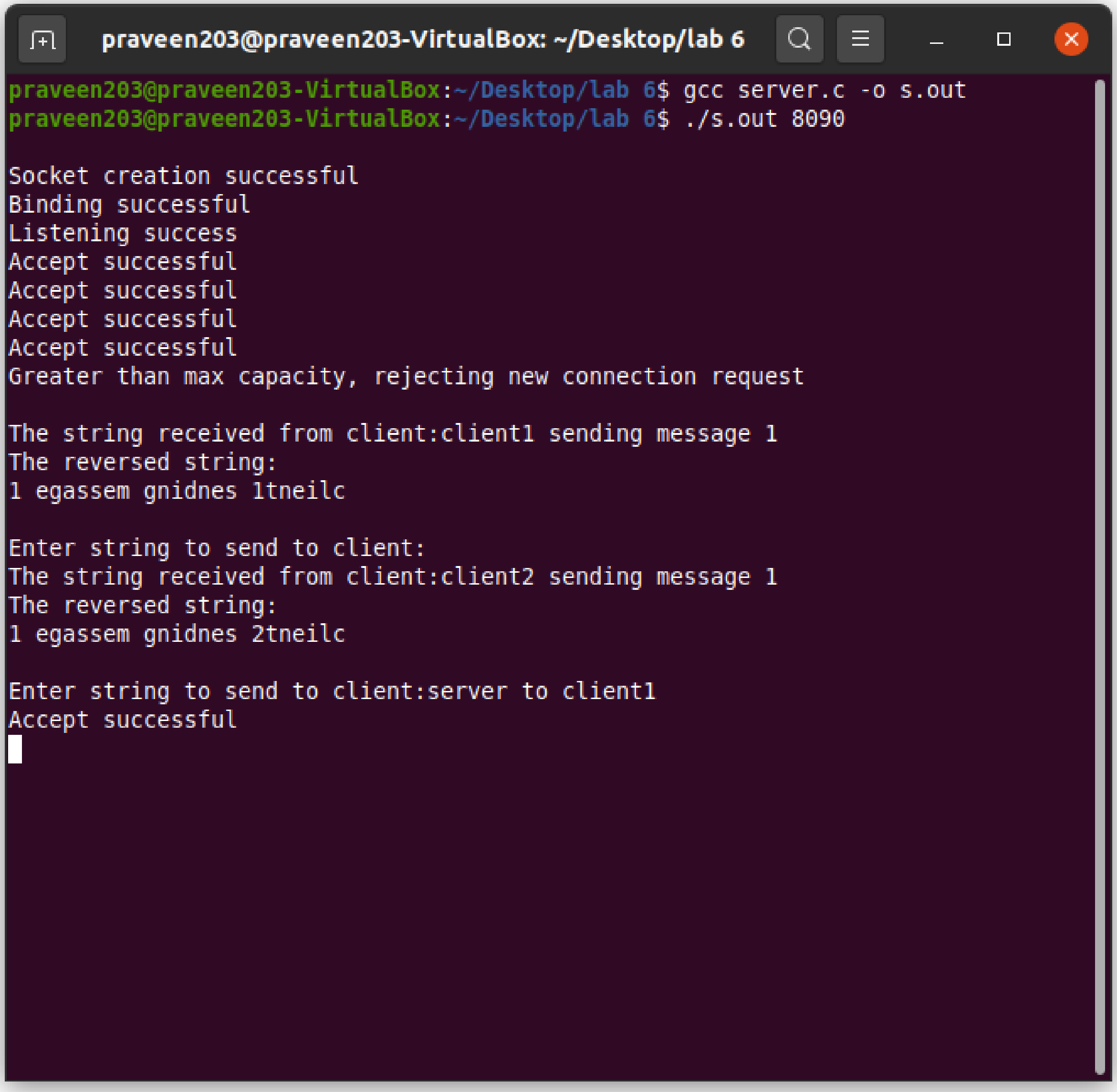
```
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ ./c.out 127.0.0.1 8090

Socket creation successful
Connection successful

Enter contents to send to server:client2 sending message 1
Waiting for server response...
```

12. Server receiving the message from client 2 and printing it reversed:



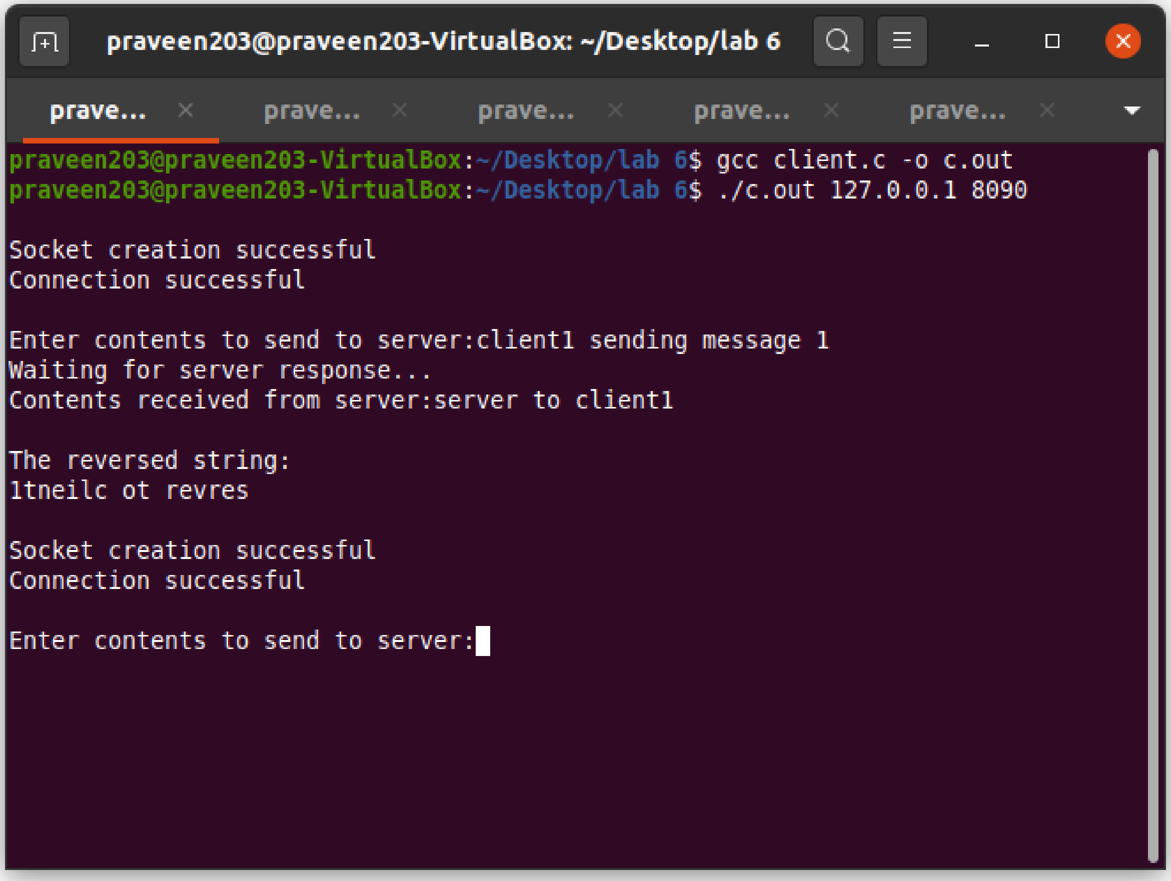
```
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ gcc server.c -o s.out
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ ./s.out 8090

Socket creation successful
Binding successful
Listening success
Accept successful
Accept successful
Accept successful
Accept successful
Greater than max capacity, rejecting new connection request

The string received from client:client1 sending message 1
The reversed string:
1 egassem gnidnes 1tneilc

Enter string to send to client:
The string received from client:client2 sending message 1
The reversed string:
1 egassem gnidnes 2tneilc

Enter string to send to client:
```

13. Server sending response to client 1(serves clients in order of receiving message):



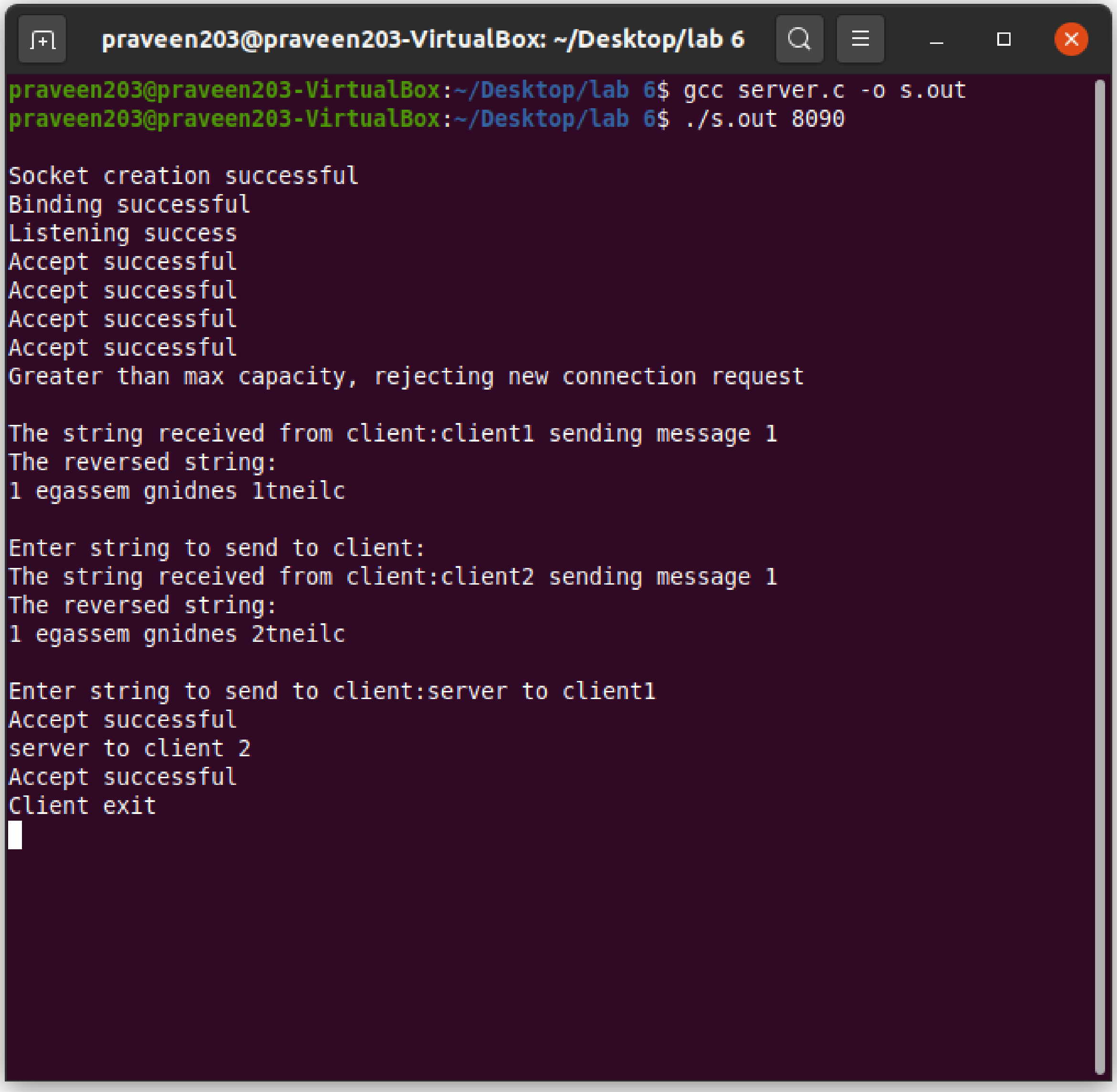
```
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ gcc server.c -o s.out
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ ./s.out 8090

Socket creation successful
Binding successful
Listening success
Accept successful
Accept successful
Accept successful
Accept successful
Greater than max capacity, rejecting new connection request

The string received from client:client1 sending message 1
The reversed string:
1 egassem gnidnes 1tneilc

Enter string to send to client:
The string received from client:client2 sending message 1
The reversed string:
1 egassem gnidnes 2tneilc

Enter string to send to client:server to client1
Accept successful
```

14. Client1 receiving the message and ready to send next message:



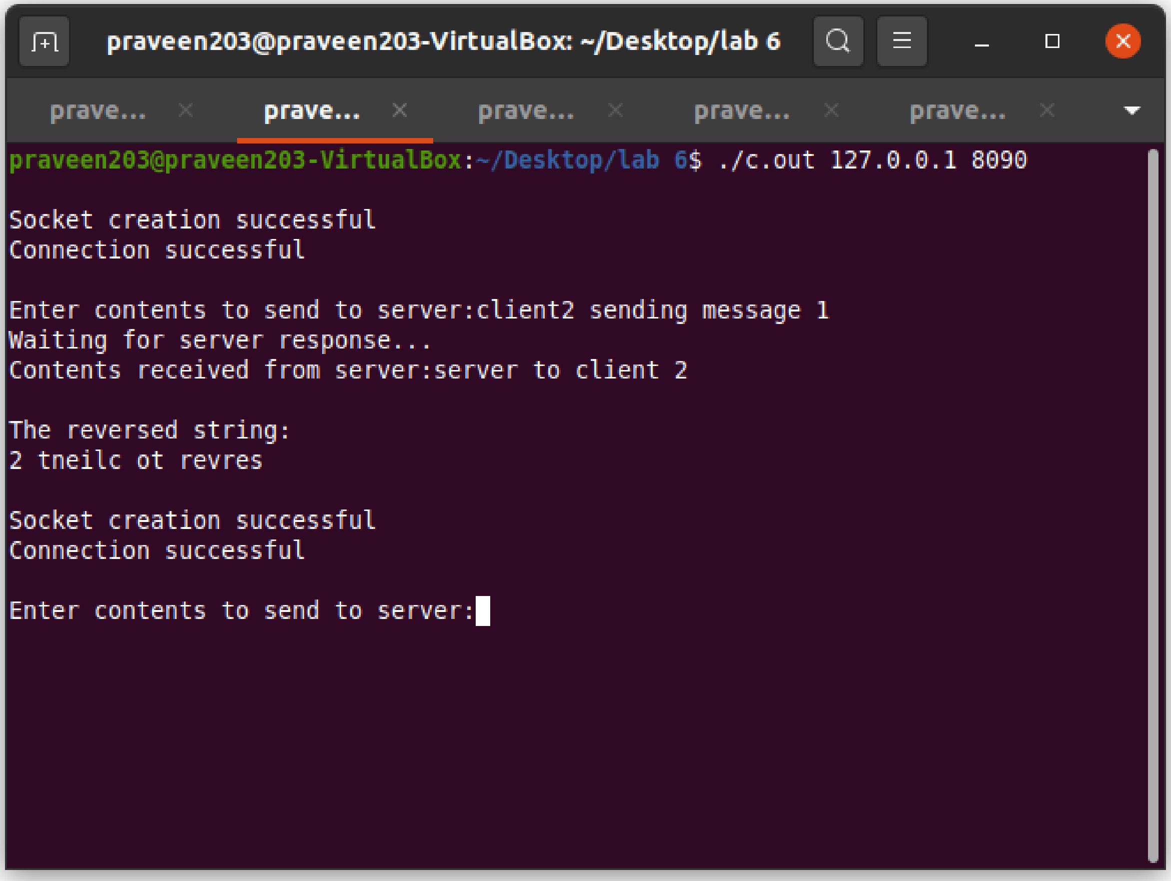
```
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ gcc client.c -o c.out
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ ./c.out 127.0.0.1 8090

Socket creation successful
Connection successful

Enter contents to send to server:client1 sending message 1
Waiting for server response...
Contents received from server:server to client1

The reversed string:
1tneilc ot revres

Socket creation successful
Connection successful

Enter contents to send to server:
```

15. Server sending response to client 2:



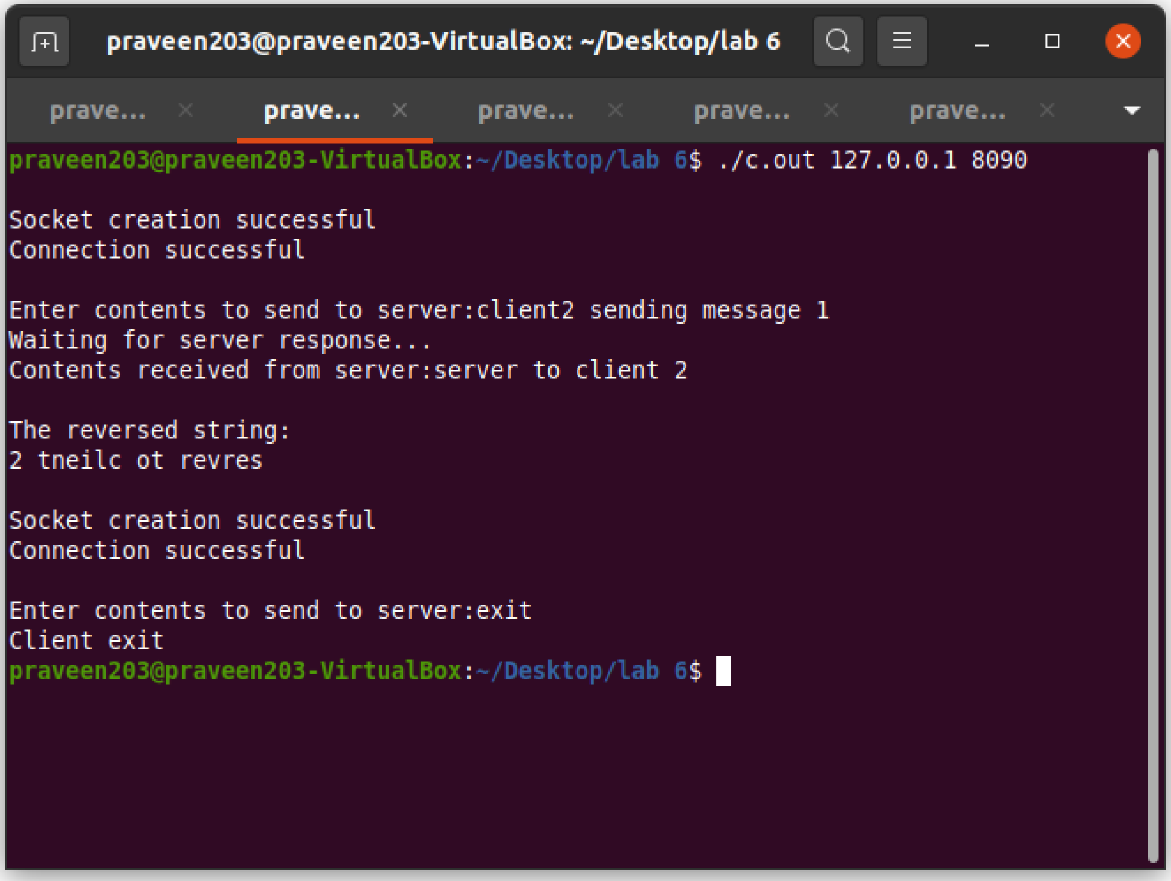
```
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ gcc server.c -o s.out
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ ./s.out 8090

Socket creation successful
Binding successful
Listening success
Accept successful
Accept successful
Accept successful
Accept successful
Greater than max capacity, rejecting new connection request

The string received from client:client1 sending message 1
The reversed string:
1 egassem gnidnes 1tneilc

Enter string to send to client:
The string received from client:client2 sending message 1
The reversed string:
1 egassem gnidnes 2tneilc

Enter string to send to client:server to client1
Accept successful
server to client 2
Accept successful
Client exit
```

16. Client2 receiving the message and ready to send the next message:



```
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ ./c.out 127.0.0.1 8090

Socket creation successful
Connection successful

Enter contents to send to server:client2 sending message 1
Waiting for server response...
Contents received from server:server to client 2

The reversed string:
2 tneilc ot revres

Socket creation successful
Connection successful

Enter contents to send to server:
```

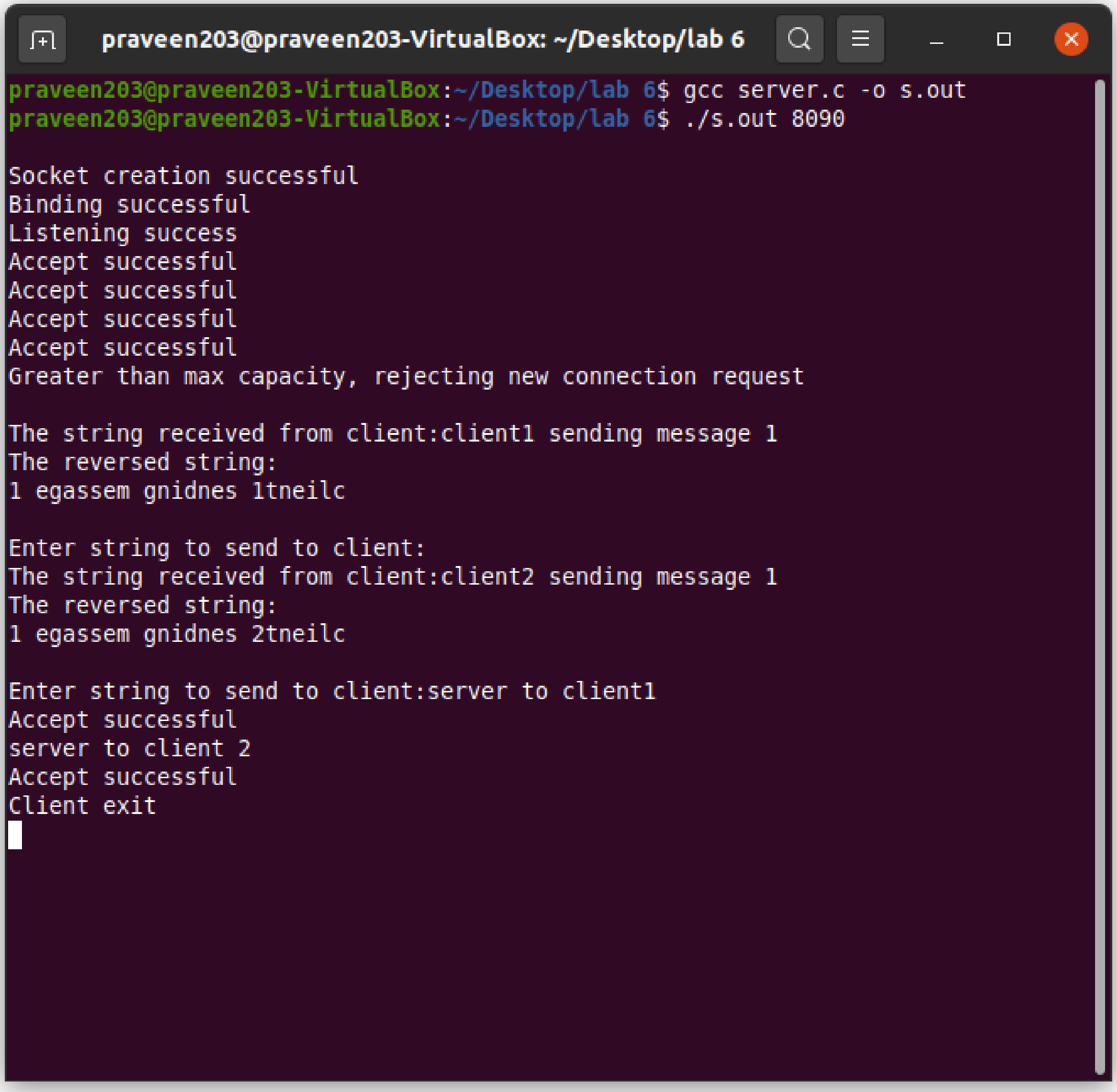
17. Client2 typing exit and exiting:



praveen203@praveen203-VirtualBox: ~/Desktop/lab 6
prave... prave... prave... prave... prave...

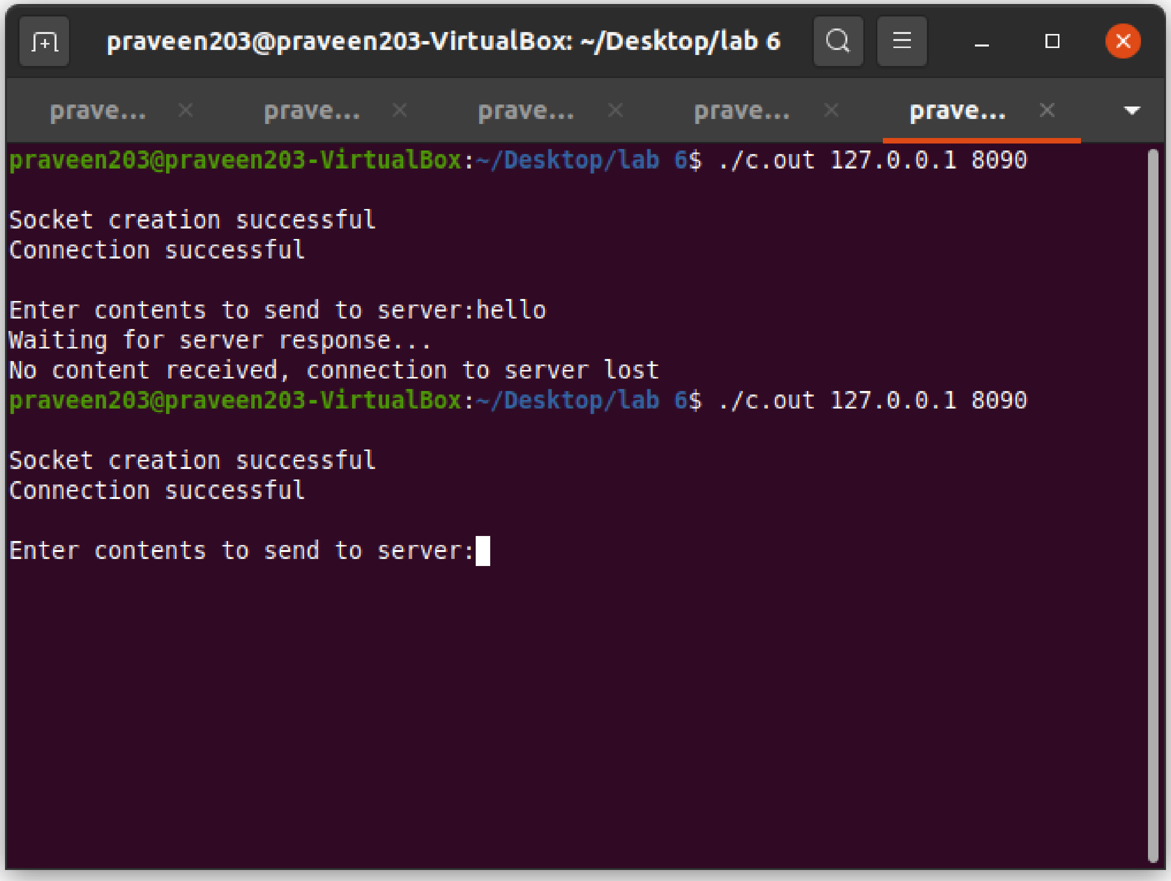
```
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ ./c.out 127.0.0.1 8090

Socket creation successful
Connection successful

Enter contents to send to server:client2 sending message 1
Waiting for server response...
Contents received from server:server to client 2

The reversed string:
2 tneilc ot revres

Socket creation successful
Connection successful

Enter contents to send to server:exit
Client exit
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$
```

18. Server ready to accept a new connection because client 2 has left:



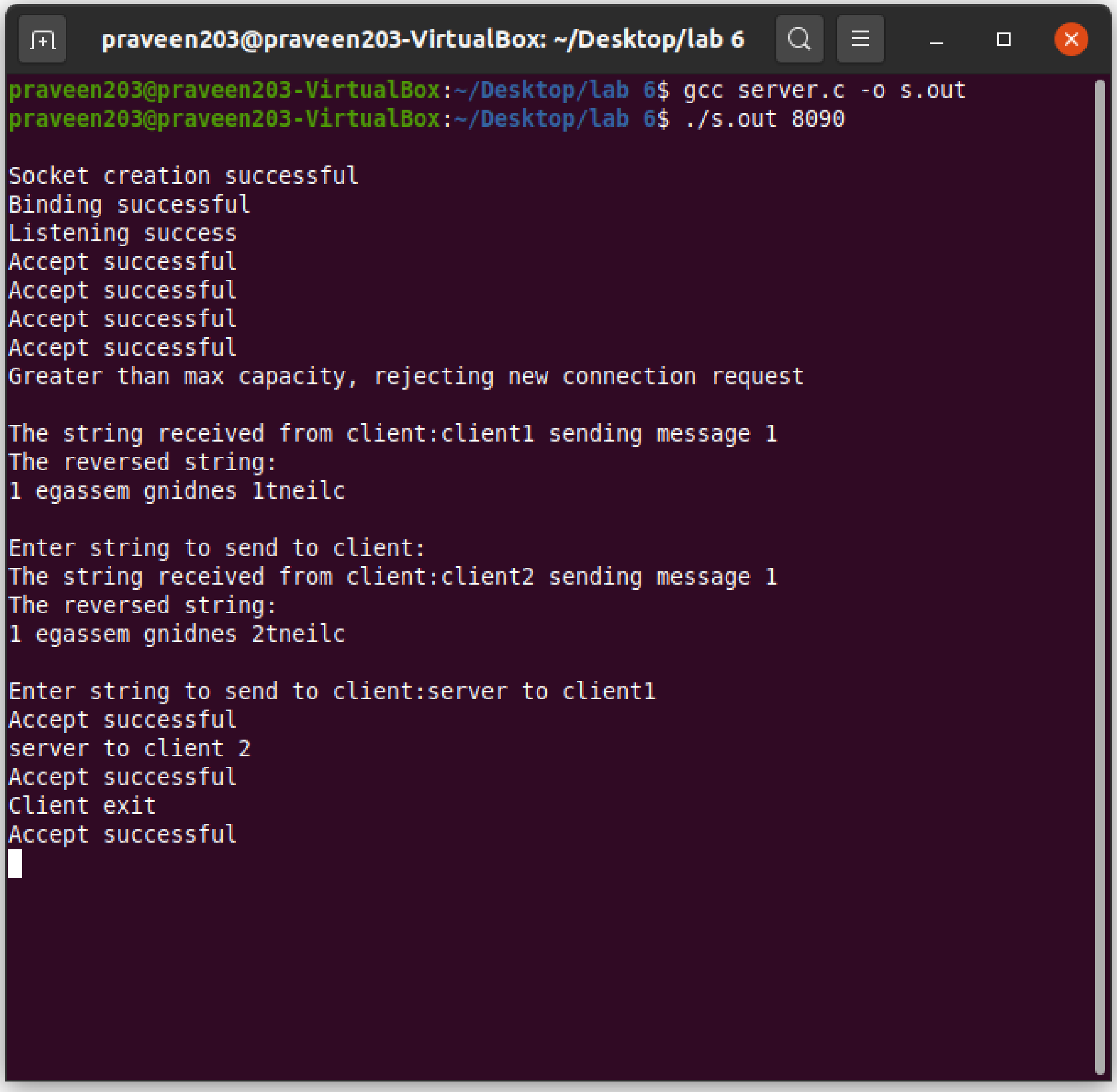
```
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ gcc server.c -o s.out
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ ./s.out 8090

Socket creation successful
Binding successful
Listening success
Accept successful
Accept successful
Accept successful
Accept successful
Greater than max capacity, rejecting new connection request

The string received from client:client1 sending message 1
The reversed string:
1 egassem gnidnes 1tneilc

Enter string to send to client:
The string received from client:client2 sending message 1
The reversed string:
1 egassem gnidnes 2tneilc

Enter string to send to client:server to client1
Accept successful
server to client 2
Accept successful
Client exit
```

19. New client 5 joining the server:



```
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ ./c.out 127.0.0.1 8090

Socket creation successful
Connection successful

Enter contents to send to server:hello
Waiting for server response...
No content received, connection to server lost
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ ./c.out 127.0.0.1 8090

Socket creation successful
Connection successful

Enter contents to send to server:
```

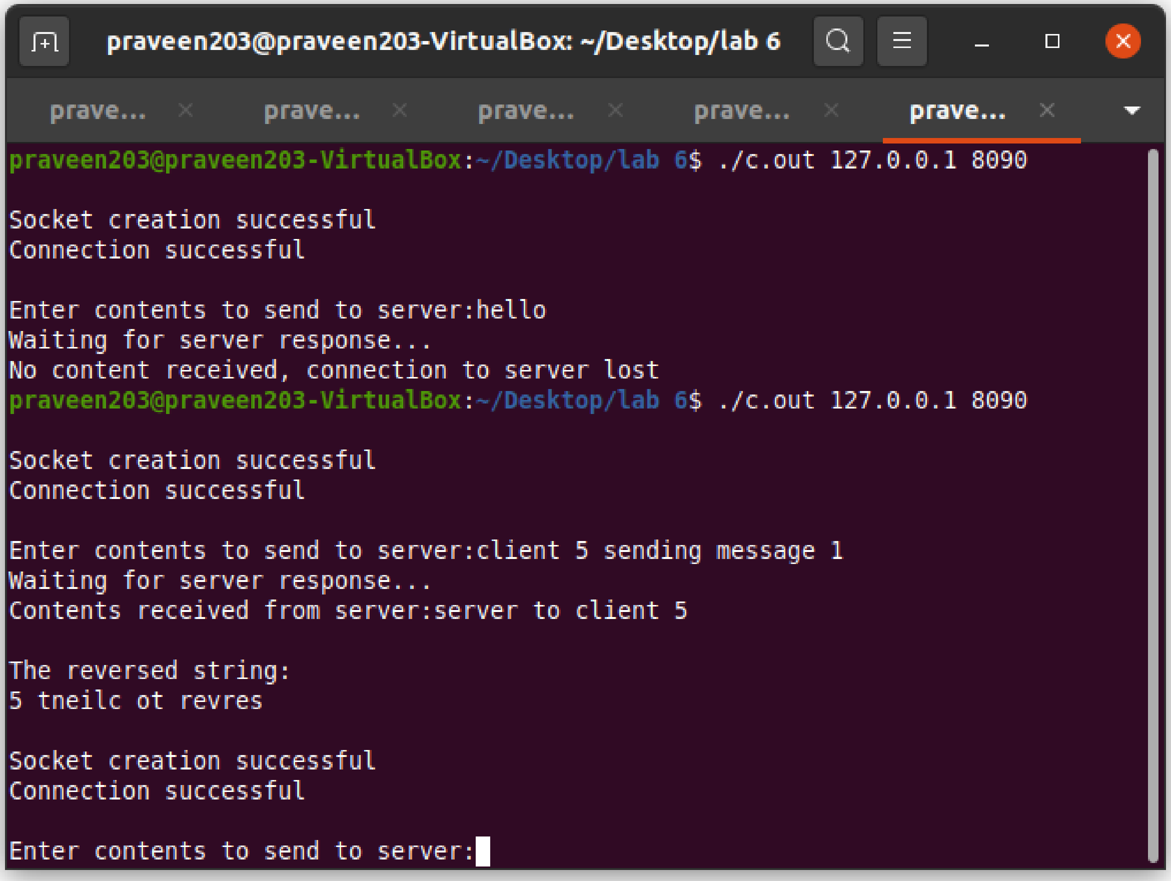
20. Server accepting the new client:



praveen203@praveen203-VirtualBox: ~/Desktop/lab 6

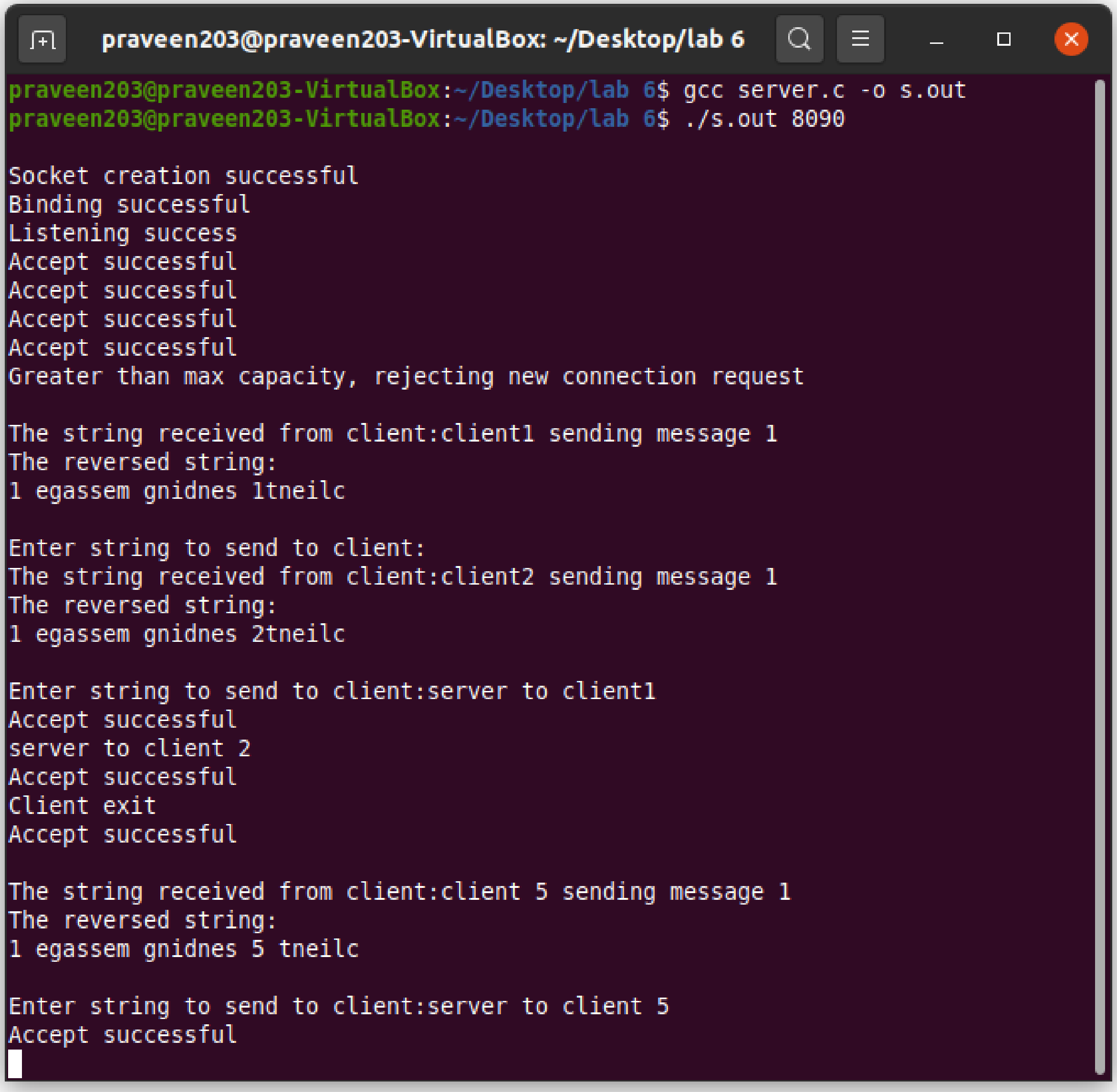
```
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ gcc server.c -o s.out
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ ./s.out 8090

Socket creation successful
Binding successful
Listening success
Accept successful
Accept successful
Accept successful
Accept successful
Greater than max capacity, rejecting new connection request

The string received from client:client1 sending message 1
The reversed string:
1 egassem gnidnes 1tneilc

Enter string to send to client:
The string received from client:client2 sending message 1
The reversed string:
1 egassem gnidnes 2tneilc

Enter string to send to client:server to client1
Accept successful
server to client 2
Accept successful
Client exit
Accept successful
```

21. Client 5 sending message and receiving response from the server:



```
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ ./c.out 127.0.0.1 8090

Socket creation successful
Connection successful

Enter contents to send to server:hello
Waiting for server response...
No content received, connection to server lost
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ ./c.out 127.0.0.1 8090

Socket creation successful
Connection successful

Enter contents to send to server:client 5 sending message 1
Waiting for server response...
Contents received from server:server to client 5

The reversed string:
5 tneilc ot revres

Socket creation successful
Connection successful

Enter contents to send to server:
```

22. Server receiving message from client 5 and sending response back:



```
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ gcc server.c -o s.out
praveen203@praveen203-VirtualBox:~/Desktop/lab 6$ ./s.out 8090

Socket creation successful
Binding successful
Listening success
Accept successful
Accept successful
Accept successful
Accept successful
Greater than max capacity, rejecting new connection request

The string received from client:client1 sending message 1
The reversed string:
1 egassem gnidnes 1tneilc

Enter string to send to client:
The string received from client:client2 sending message 1
The reversed string:
1 egassem gnidnes 2tneilc

Enter string to send to client:server to client1
Accept successful
server to client 2
Accept successful
Client exit
Accept successful

The string received from client:client 5 sending message 1
The reversed string:
1 egassem gnidnes 5 tneilc

Enter string to send to client:server to client 5
Accept successful
```

Praveen Sridhar
2018A7PS0166G