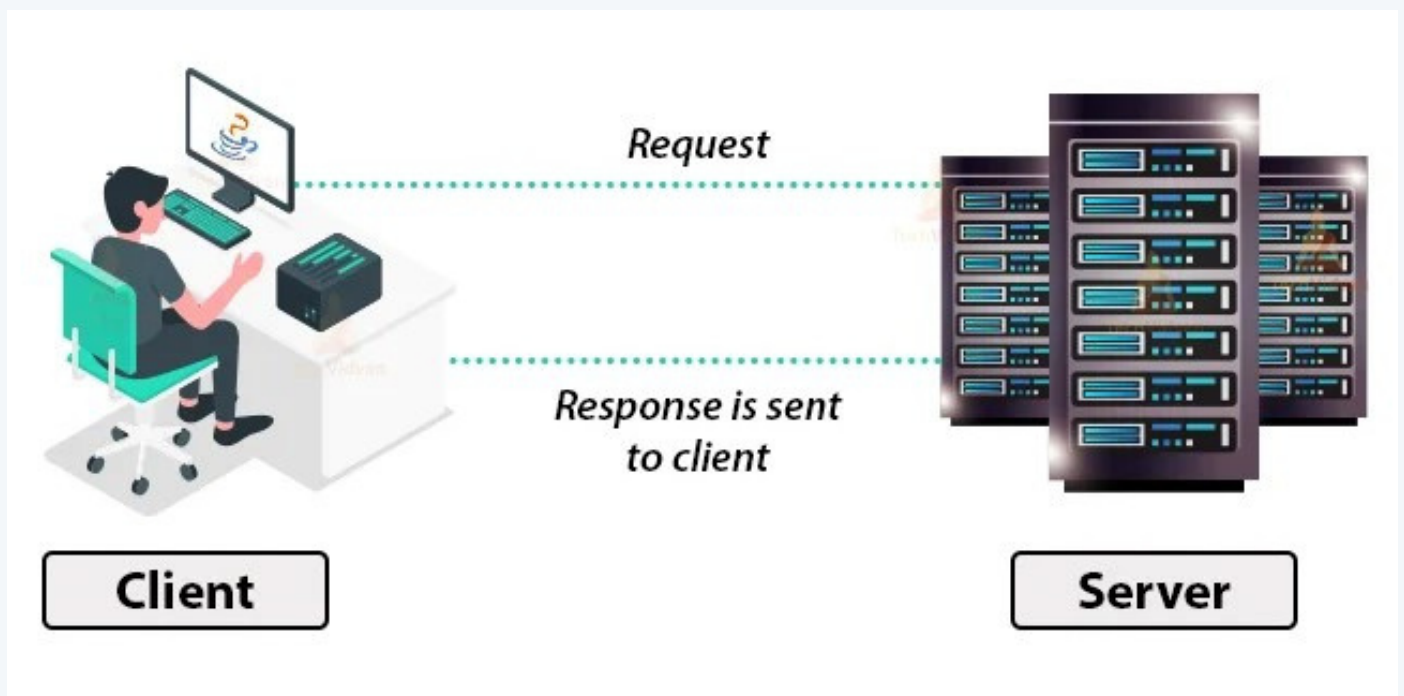


Simple Chat Application Using Socket Programming in C



Prepared By:
K.A.S. Lakshan
(CS/2020/054)

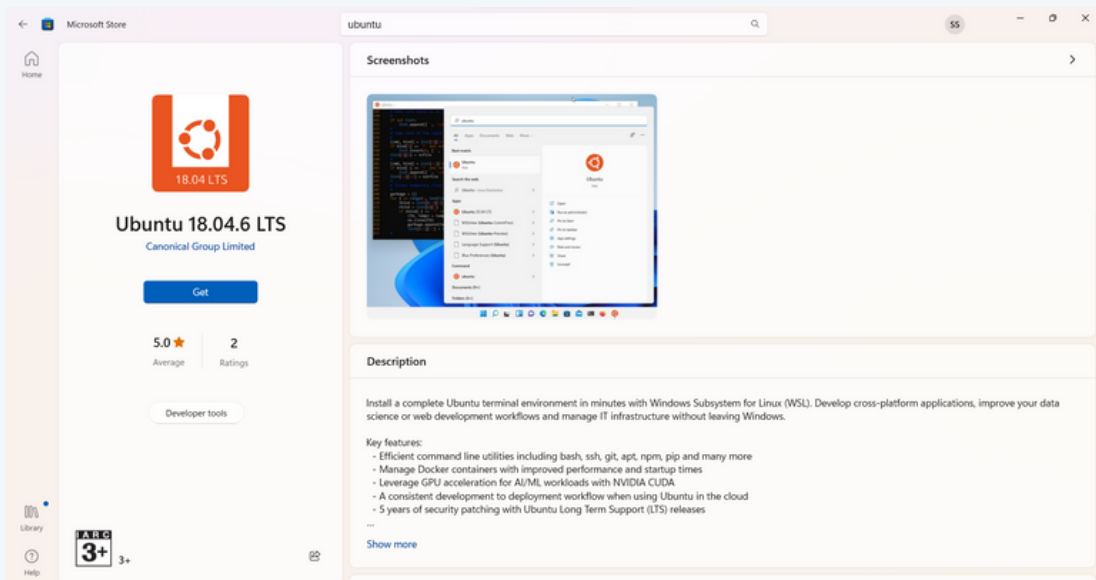
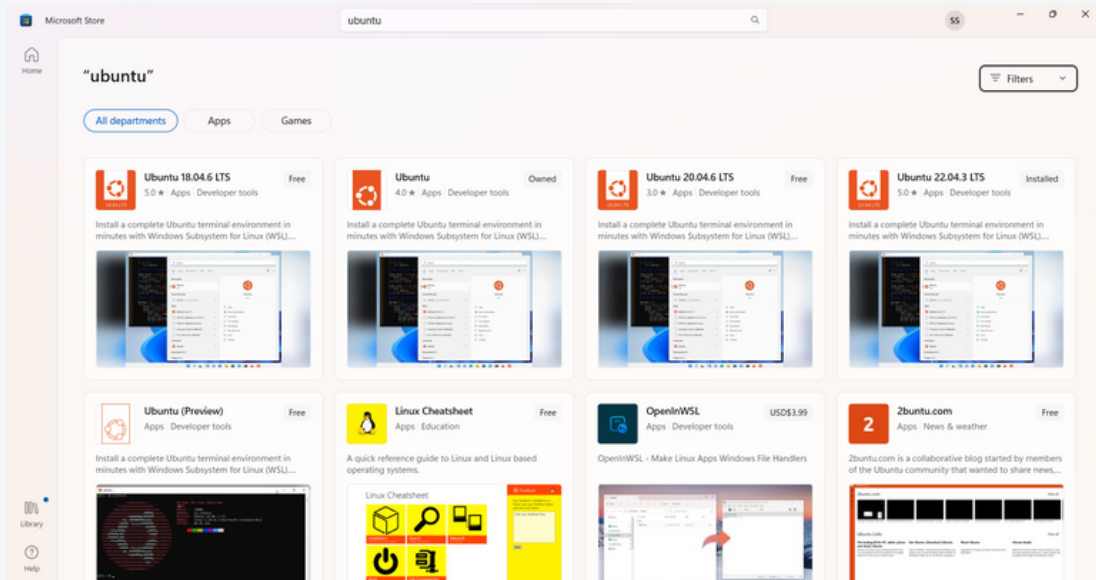
Prepared By:
Sandiru Samarakoon
(CS/2020/032)

19/12/2023

Instructions

Step 01 :

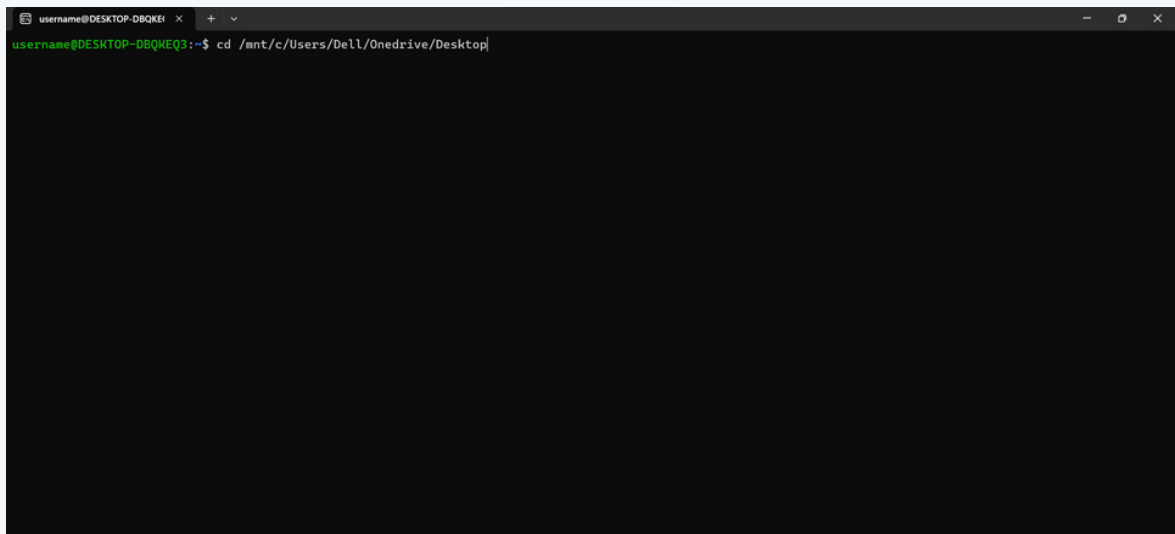
To run this program you want to Linux based system, If you are windows user you must either download and install Linux subsystem for windows(via windows features) or use another method to create Linux environment.



Instructions

Step 02 :

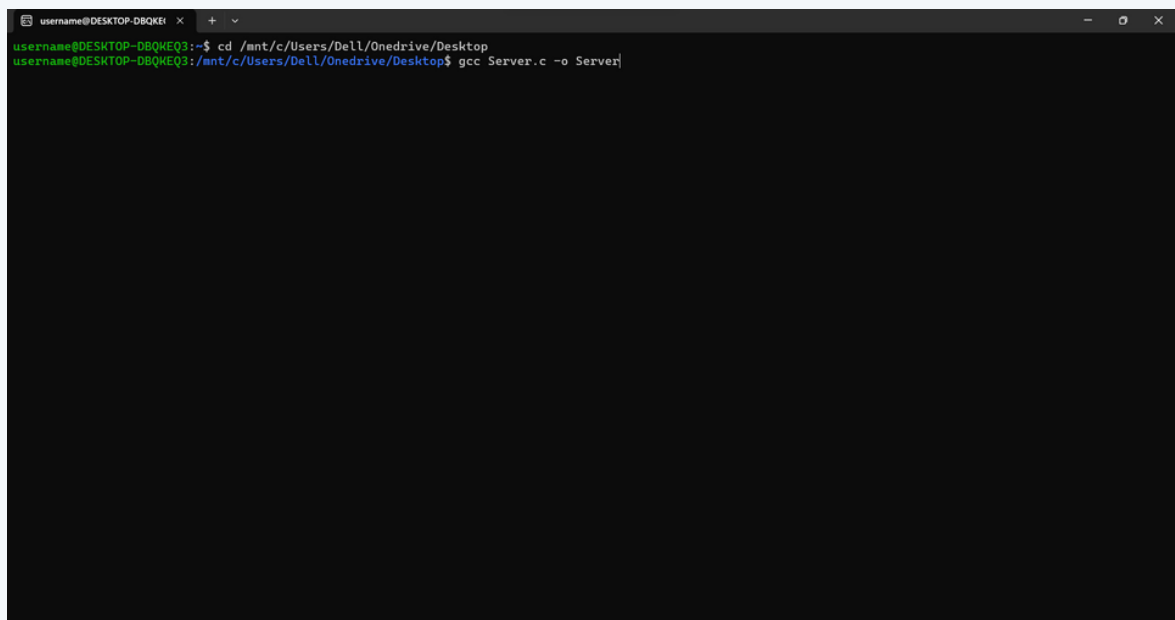
Open the linux terminal and select the file directory which the program files are stored, then press the “Enter” button.



```
username@DESKTOP-DBQKEI: ~  
username@DESKTOP-DBQKEI:~$ cd /mnt/c/Users/Dell/Onedrive/Desktop
```

Step 03 :

Start the server program by entering the command “gcc Server.c -o Server”

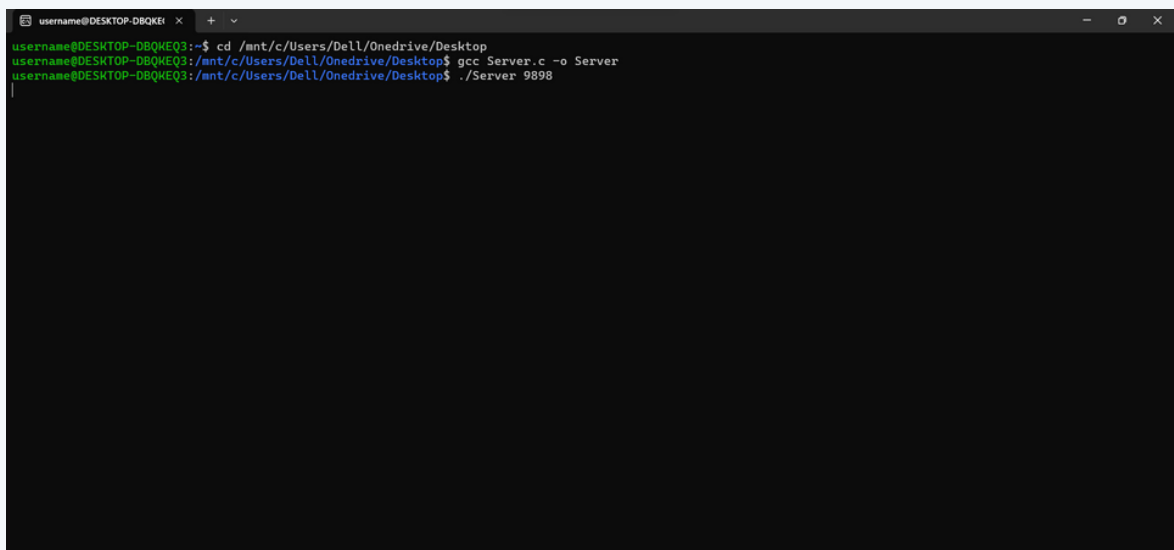


```
username@DESKTOP-DBQKEI: ~  
username@DESKTOP-DBQKEI:~$ cd /mnt/c/Users/Dell/Onedrive/Desktop  
username@DESKTOP-DBQKEI:/mnt/c/Users/Dell/Onedrive/Desktop$ gcc Server.c -o Server
```

Instructions

Step 04 :

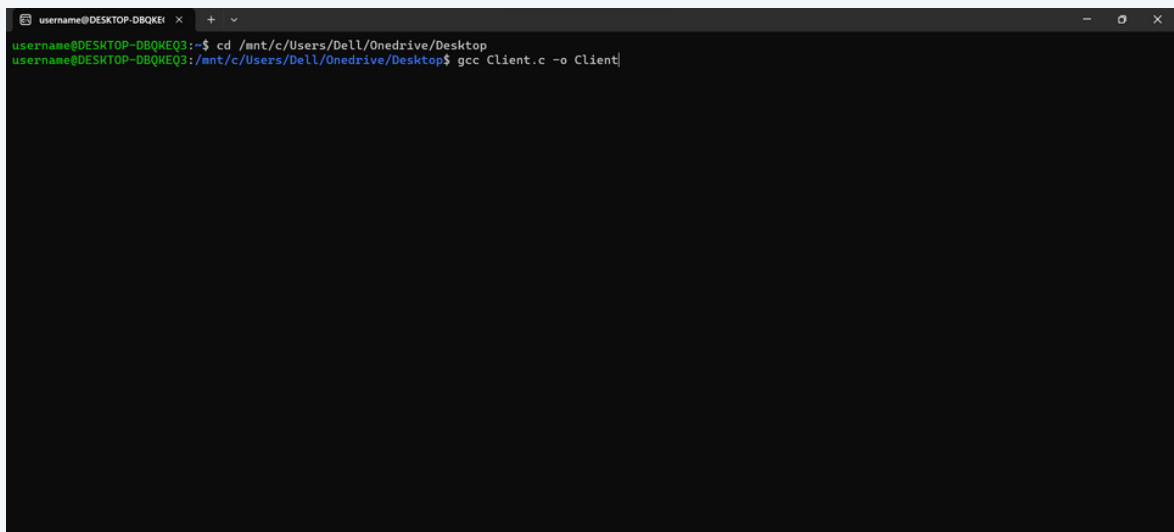
Give a port number(as you wish) for server to communicate with the client by entering the command “./Server port number”

A terminal window with a dark background and light green text. The window title is 'username@DESKTOP-DBQKEI'. The prompt is 'username@DESKTOP-DBQKEI:~\$'. The user enters 'cd /mnt/c/Users/Dell/Onedrive/Desktop' and presses enter. The prompt changes to 'username@DESKTOP-DBQKEI:/mnt/c/Users/Dell/Onedrive/Desktop\$'. The user enters 'gcc Server.c -o Server' and presses enter. The prompt changes to 'username@DESKTOP-DBQKEI:/mnt/c/Users/Dell/Onedrive/Desktop\$'. The user enters './Server 9898' and presses enter. The prompt changes to 'username@DESKTOP-DBQKEI:/mnt/c/Users/Dell/Onedrive/Desktop\$' and the cursor is on a new line.

```
username@DESKTOP-DBQKEI:~$ cd /mnt/c/Users/Dell/Onedrive/Desktop
username@DESKTOP-DBQKEI:/mnt/c/Users/Dell/Onedrive/Desktop$ gcc Server.c -o Server
username@DESKTOP-DBQKEI:/mnt/c/Users/Dell/Onedrive/Desktop$ ./Server 9898
username@DESKTOP-DBQKEI:/mnt/c/Users/Dell/Onedrive/Desktop$
```

Step 05 :

Open another terminal window and repeat the step 02, then start the client program by entering the command “gcc Client.c -o Client”

A terminal window with a dark background and light green text. The window title is 'username@DESKTOP-DBQKEI'. The prompt is 'username@DESKTOP-DBQKEI:~\$'. The user enters 'cd /mnt/c/Users/Dell/Onedrive/Desktop' and presses enter. The prompt changes to 'username@DESKTOP-DBQKEI:/mnt/c/Users/Dell/Onedrive/Desktop\$'. The user enters 'gcc Client.c -o Client' and presses enter. The prompt changes to 'username@DESKTOP-DBQKEI:/mnt/c/Users/Dell/Onedrive/Desktop\$' and the cursor is on a new line.

```
username@DESKTOP-DBQKEI:~$ cd /mnt/c/Users/Dell/Onedrive/Desktop
username@DESKTOP-DBQKEI:/mnt/c/Users/Dell/Onedrive/Desktop$ gcc Client.c -o Client
username@DESKTOP-DBQKEI:/mnt/c/Users/Dell/Onedrive/Desktop$
```

Instructions

Step 06 :

Give ip address and port number of the server you previously started server by entering the command
“./Client server_ip_address<space>port_number”

```
username@DESKTOP-DBQKE1 x + v
username@DESKTOP-DBQKE1:~$ cd /mnt/c/Users/Dell/Onedrive/Desktop
username@DESKTOP-DBQKE1:~/mnt/c/Users/Dell/Onedrive/Desktop$ gcc Client.c -o Client
username@DESKTOP-DBQKE1:~/mnt/c/Users/Dell/Onedrive/Desktop$ ./Client 127.0.0.1 9898
```

Step 07 :

Now you can start messaging with each other

```
username@DESKTOP-DBQKE: ~$ cd /mnt/c/Users/Dell/Onedrive/Desktop
username@DESKTOP-DBQKE: /mnt/c/Users/Dell/Onedrive/Desktop$ gcc Server.c -o
Server
username@DESKTOP-DBQKE: /mnt/c/Users/Dell/Onedrive/Desktop$ ./Server 9898
Client : Hello

Hi, What are you want?
Client : 10/5

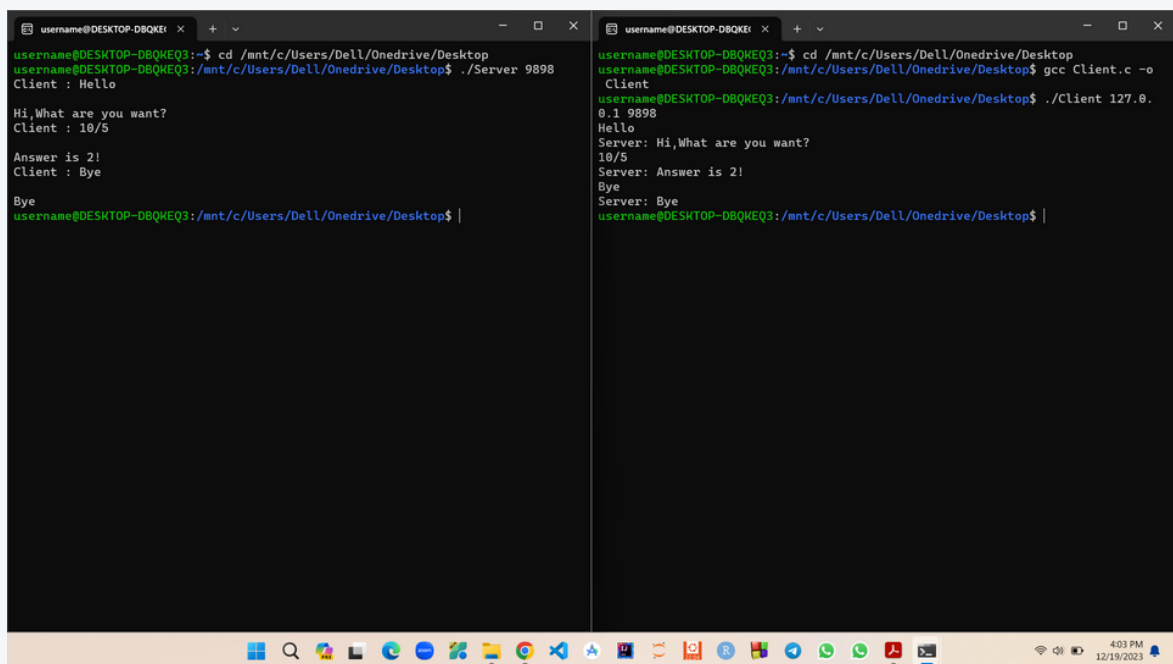
Answer is 2!
```

```
username@DESKTOP-DBQKE: ~$ cd /mnt/c/Users/Dell/Onedrive/Desktop
username@DESKTOP-DBQKE: /mnt/c/Users/Dell/Onedrive/Desktop$ gcc Client.c -o
Client
username@DESKTOP-DBQKE: /mnt/c/Users/Dell/Onedrive/Desktop$ ./Client 127.0.
0.1 9898
Hello
Server: Hi, What are you want?
10/5
Server: Answer is 2!
```

Instructions

Step 08 :

Finally, you can stop the application by entering the command “Bye” in both client and server programs.



```
username@DESKTOP-DBQKE3:~$ cd /mnt/c/Users/Dell/Onedrive/Desktop
username@DESKTOP-DBQKE3:/mnt/c/Users/Dell/Onedrive/Desktop$ ./Server 9898
Client : Hello
Hi,What are you want?
Client : 10/5
Answer is 2!
Client : Bye
Bye
username@DESKTOP-DBQKE3:/mnt/c/Users/Dell/Onedrive/Desktop$ |

username@DESKTOP-DBQKE3:~$ cd /mnt/c/Users/Dell/Onedrive/Desktop
username@DESKTOP-DBQKE3:/mnt/c/Users/Dell/Onedrive/Desktop$ gcc Client.c -o
Client
username@DESKTOP-DBQKE3:/mnt/c/Users/Dell/Onedrive/Desktop$ ./Client 127.0.
0.1 9898
Hello
Server: Hi,What are you want?
10/5
Server: Answer is 2!
Bye
Server: Bye
username@DESKTOP-DBQKE3:/mnt/c/Users/Dell/Onedrive/Desktop$ |
```



Thank
You



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