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Local\_Host

**Clan-Talks(v1.0)**

A Multi-Client chat server application

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# Introduction

As the name suggest this is an application that lets one communicate with other users via local server using terminals in multi platform. To elaborate a little the host system will act as a server to create a chat space in which other systems will join to communicate using minor terminal commands.

* Not only the clients but also the server can chat in the created chat room.
* The whole group will be notified when someone connects or disconnect from the chat group.
* Tested with host linux/windows server and client on different platforms.
* Tested and successfully worked on 6 client server including the host

## Getting Started

These instructions will get you a copy of the project up and running on your local machine for testing and further development. See deployment for notes on how to deploy the project on a live system.

* **Prerequisites**

There are not many requirements but a few basic things will definately be needed

* Windows OS/Linux
* Visual Studio community 2017 (windows)
* Any text editor(Linux) (I used Visual Studio Code)
* Netcat v1.1(only for windows)

### Installing

Follow the following steps and download all the necessary files to run the program :- *NOTE :- The port number is set to 12300, you can change it from inside the code by changing the port number inside the constructor declared in line 23, & only netcat is needed from the client side.*

**---FOR THE HOST TO BE ON WINDOWS PLATFORM---**

**---------SERVER SIDE-----------**

* Download all the files from the link below

https://github.com/SubCoder1/Clan-Talks.git

* All you need for the server code to run on windows is the folder named “Win-Clan-Talks”.
* Double click on SERVER\_SOCKET.sln (Visual Studio File), The project should open.
* If the project opens without the code being shown, click on solution explorer which you will find under the ‘view’ tab.
* Compile the code & run it (ctrl + F5).
* For different IDEs, open the SERVER\_SOCKET.cpp file inside the folder “SERVER\_SOCKET” & run it.
* Now open command prompt & enter “**ipconfig**“ & get the host’s ip-address, Make sure the server is connected to the same network as the client.
* Using cd [directory] to change the directory to where netcat folder is. (Put the netcat folder into desktop for your convenience)
* (Assuming the directory of netcat is in desktop) Enter cd desktop -> cd netcat v1.1 -> nc -> nc.exe -h.
* (In the host PC only) enter “**nc 127.0.0.1 12300**”. (**localhost -> 127.0.0.1**)
* Clan-Talks (v1.0) should be opened.

**--------CLIENT SIDE----------**

* Use the same procedure to access netcat via cmd till nc.exe -h, then enter

**“nc [host ip address] [port]”**, the Same Clan-Talks v1.0 should pop up.

**---FOR THE HOST TO BE ON LINUX PLATFORM---**

**--------SERVER SIDE----------**

* Download all the files from the link below

https://github.com/SubCoder1/Clan-Talks.git

* All you need for the server code to run on linux is the folder named “Linux-Clan-Talks”.
* Open the terminal of the server PC, type & enter “hostname -I” to get the host IP-Address.
* If you are using Visual Studio Code, Open the folder “Linux-Clan-Talks”.
* Open the .cpp file, press “**Ctrl+Shift+B**” to compile & run the program.
* Now open the terminal ,type & enter “**nc localhost 12300**”. Clan-Talks(v1.0) should be opened.
* Or follow the following instructions in the link given to run this code directly through the terminal.

<https://askubuntu.com/questions/61408/what-is-a-command-to-compile-and-run-c-programs>

**--------CLIENT SIDE----------**

* Open the Terminal, type & enter “**nc [host-IP-Address][PORT(12300)]**”, Clan-Talks(v1.0) should open.

### Running the tests

You can refer the steps by clicking the link below:

<https://youtu.be/MDwVR8zQ3bg>

In this video Host was on Linux platform and a single client was used on a Windows platform.

**Acknowledgement**

Beej’s Guide to Network Programming

<https://beej.us/guide/bgnet/html/single/bgnet.html>

Getting started with Winsock (Windows)

<https://docs.microsoft.com/en-us/windows/desktop/winsock/getting-started-with-winsock>