(1) 打开 Linux（我默认是 Ubuntu）的终端，进入 build 目录，依次执行 cmake 和 make
指令

```
fangchen@fangchen-virtual-machine:~/instant_messaging_utility/build$ cmake ..

-- The C compiler identification is GNU 4.8.5
-- The CXX compiler identification is GNU 4.8.5
-- Check for working C compiler: /usr/bin/cc
-- Check for working C compiler: /usr/bin/cc -- works
-- Detecting C compiler ABI info
-- Detecting C compiler ABI info - done
-- Detecting C compile features
-- Detecting C compile features - done
-- Check for working CXX compiler: /usr/bin/c++
-- Check for working CXX compiler: /usr/bin/c++ -- works
-- Detecting CXX compiler ABI info
-- Detecting CXX compiler ABI info - done
-- Detecting CXX compile features
-- Detecting CXX compile features - done
-- Configuring done
-- Generating done
-- Build files have been written to: /home/fangchen/instant_messaging_utility/bu
ild
```

```
fangchen@fangchen-virtual-machine:~/instant_messaging_utility/build$ make
Scanning dependencies of target chatroom_client
[ 16%] Building CXX object CMakeFiles/chatroom_client.dir/src/Client.cpp.o
/home/fangchen/instant_messaging_utility/src/Client.cpp: In member function 'voi
d Client::Start()':
/home/fangchen/instant_messaging_utility/src/Client.cpp:108:44: warning: ignorin
g return value of 'char* fgets(char*, int, FILE*)', declared with attribute warn
_unused_result [-Wunused-result]
           fgets(message, BUF_SIZE, stdin);
                                           ^
[ 33%] Building CXX object CMakeFiles/chatroom_client.dir/src/ClientMain.cpp.o
[ 50%] Linking CXX executable ../bin/chatroom_client
[ 50%] Built target chatroom_client
Scanning dependencies of target chatroom_server
[ 66%] Building CXX object CMakeFiles/chatroom_server.dir/src/Server.cpp.o
[ 83%] Building CXX object CMakeFiles/chatroom_server.dir/src/ServerMain.cpp.o
[100%] Linking CXX executable ../bin/chatroom_server
[100%] Built target chatroom_server
```

(2) 然后进入 bin 目录，首先运行 chatroom_server

```
fangchen@fangchen-virtual-machine:~/instant_messaging_utility/bin$ ./chatroom_se
rver
Init Server...
Start to listen: 127.0.0.1
fd added to epoll!
```
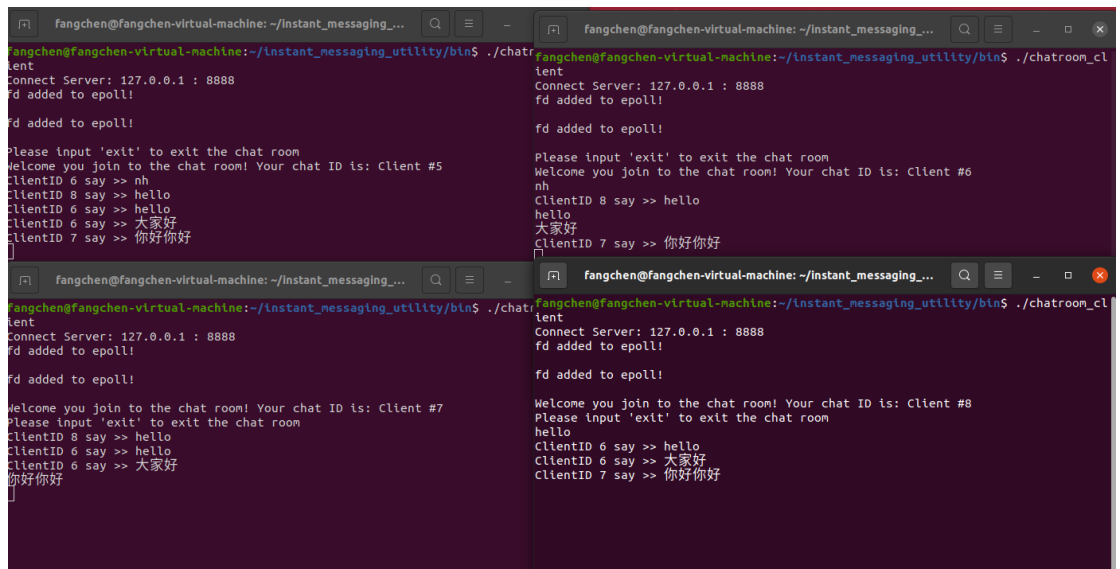
(3) 之后打开新的终端运行 chatroom_client

```
fangchen@fangchen-virtual-machine:~/instant_messaging_utility/bin$ ./chatroom_cl
ient
Connect Server: 127.0.0.1 : 8888
fd added to epoll!

fd added to epoll!

Please input 'exit' to exit the chat room
Welcome you join to the chat room! Your chat ID is: Client #5
```

(4) 可以看到服务端和客户端分别有一些日志输出，客户端也会收到欢迎信息。为了加
入更多的客户，可以打开新的终端，启动新的客户，每个客户的 clientfd 是不同的，
发出去的消息在其他客户界面都可以看到来源。

(5) 在不同的客户端界面发送信息，结果如下