

컴퓨터 네트워크 homework-채팅프로그램

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프로그램 구성

SERVER

- Login된 client list 관리
 - @table 로 확인 가능
- Client request처리
 - @등등..

CLIENT(CHATTER)

- Server접속
 - @login <name> <ip> <port>
- 채팅룸 생성/초대
 - @invite <client name>
- 초대 승락/거절
 - @yes/@no
- 채팅방 탈퇴
 - @leave
- ...

구현내용 – SERVER

*8080번 port사용

Keyboard 입력

- @table
 - active member list print
- @quit
 - send shutdown message to clients

Client로부터 msg

- @LOGIN <name> <ip>
<port>
 - port에 name 설정(list 관리)
- @GET <name>
 - 다른 client의 정보 요청.
@OK/@FAIL로 응답
- @QUIT
 - close client connection

구현내용 – CLIENT

<name> <ip> <port>는 키보드로부터 입력 받음

Keyboard 입력

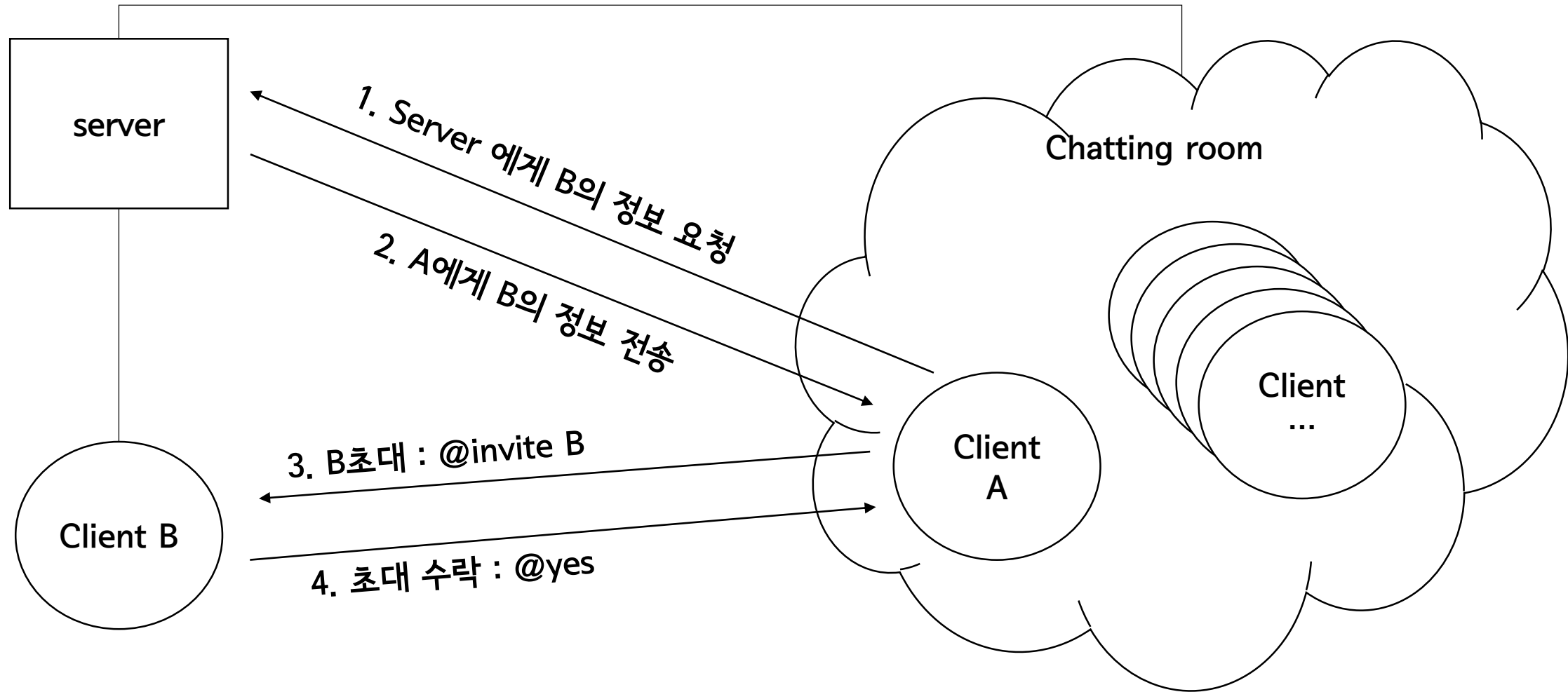
- @invite <client name>
 - client에게 초대 msg 보내기
- @yes/@no
 - 초대 수락/거절
- @leave
 - 채팅 방 나가기
- @quit
 - 프로그램 종료

Server로부터의 msg

- @OK
 - client 정보 수신 성공
- @FAIL
 - client 정보 수신 실패(client가 존재하지 않음)
- @BAD
 - WRONG REQUEST
- @SQUIT
 - SERVER SHUTDOWN

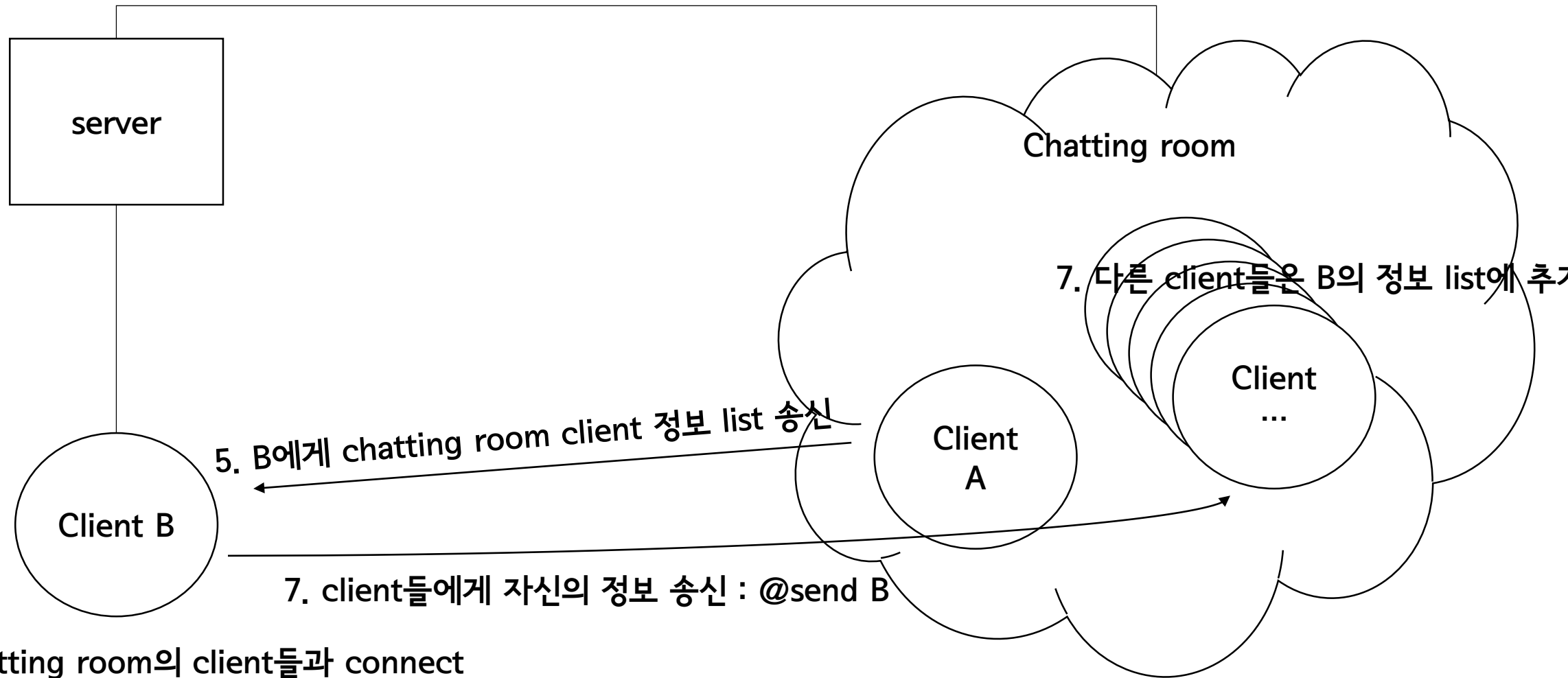
구현내용

ex_flow : client A가 client B에게 invite msg 송신(1)



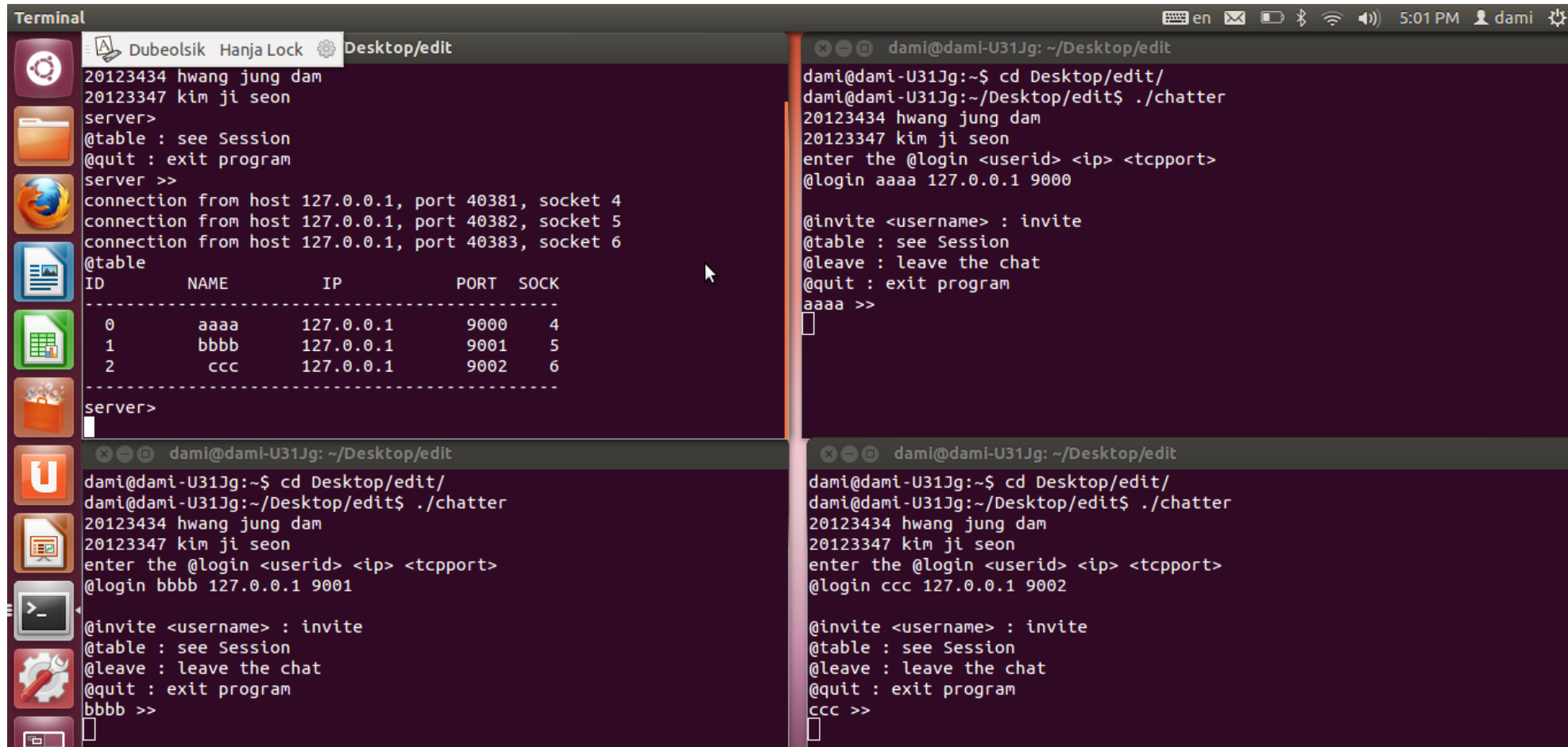
구현내용

ex_flow : client A가 client B에게 invite msg 송신(2)



사용방법-예시(1) :

connection to server



```
Terminal
Dubeolsik Hanja Lock Desktop/edit
20123434 hwang jung dam
20123347 kim ji seon
server>
@table : see Session
@quit : exit program
server >>
connection from host 127.0.0.1, port 40381, socket 4
connection from host 127.0.0.1, port 40382, socket 5
connection from host 127.0.0.1, port 40383, socket 6
@table
ID      NAME      IP      PORT  SOCK
-----
0       aaaa      127.0.0.1  9000   4
1       bbbb      127.0.0.1  9001   5
2       ccc       127.0.0.1  9002   6
-----
server>

dami@dami-U31Jg:~$ cd Desktop/edit/
dami@dami-U31Jg:~/Desktop/edit$ ./chatter
20123434 hwang jung dam
20123347 kim ji seon
enter the @login <userid> <ip> <tcpport>
@login aaaa 127.0.0.1 9000

@invite <username> : invite
@table : see Session
@leave : leave the chat
@quit : exit program
aaaa >>

dami@dami-U31Jg:~$ cd Desktop/edit/
dami@dami-U31Jg:~/Desktop/edit$ ./chatter
20123434 hwang jung dam
20123347 kim ji seon
enter the @login <userid> <ip> <tcpport>
@login bbbb 127.0.0.1 9001

@invite <username> : invite
@table : see Session
@leave : leave the chat
@quit : exit program
bbbb >>

dami@dami-U31Jg:~$ cd Desktop/edit/
dami@dami-U31Jg:~/Desktop/edit$ ./chatter
20123434 hwang jung dam
20123347 kim ji seon
enter the @login <userid> <ip> <tcpport>
@login ccc 127.0.0.1 9002

@invite <username> : invite
@table : see Session
@leave : leave the chat
@quit : exit program
ccc >>
```

실행 예시(2) :

client aaaa, bbbb, ccc join chatting room

```
Terminal
Dubeolsik Hanja Lock Desktop/edit
20123434 hwang jung dam
20123347 kim ji seon
server>
@table : see Session
@quit : exit program
server >>
connection from host 127.0.0.1, port 40381, socket 4
connection from host 127.0.0.1, port 40382, socket 5
connection from host 127.0.0.1, port 40383, socket 6
@table
ID      NAME      IP      PORT  SOCK
-----
0       aaaa      127.0.0.1  9000   4
1       bbbb      127.0.0.1  9001   5
2       ccc       127.0.0.1  9002   6
-----
server>

damid@damid-U31Jg: ~/Desktop/edit
Join the Session
bbbb >>
@table
ID  NAME      IP      PORT  SOCK
-----
0   aaaa      127.0.0.1  9000   5
1   ccc       127.0.0.1  9002   6
-----
bbbb >>
hello!
bbbb >>
@table
ID  NAME      IP      PORT  SOCK
-----
0   aaaa      127.0.0.1  9000   5
1   ccc       127.0.0.1  9002   6
-----
bbbb >>
ccc : hihi

damid@damid-U31Jg: ~/Desktop/edit
@invite cccc
aaaa >>
fail to find user : cccc

aaaa >>
@invite ccc
aaaa >>
Session Connected with ccc
@table
ID  NAME      IP      PORT  SOCK
-----
0   bbbb      127.0.0.1  9001   5
1   ccc       127.0.0.1  9002   6
-----
aaaa >>
ccc : hihi

damid@damid-U31Jg: ~/Desktop/edit
@invite <username> : invite
@table : see Session
@leave : leave the chat
@quit : exit program
ccc >>
Invitation From Host aaaa, Type @yes or @no : Write Correct Answer!(@yes
or @no)
@yes
Join the Session
ccc >>
@table
ID  NAME      IP      PORT  SOCK
-----
0   aaaa      127.0.0.1  9000   5
1   bbbb      127.0.0.1  9001   6
-----
ccc >>
hihi
ccc >>
```


실행 예시(3) :

client aaaa leaves chatting room

```
Terminal
Dubeolsik Hanja Lock Desktop/edit
20123434 hwang jung dam
20123347 kim ji seon
server>
@table : see Session
@quit : exit program
server >>
connection from host 127.0.0.1, port 40381, socket 4
connection from host 127.0.0.1, port 40382, socket 5
connection from host 127.0.0.1, port 40383, socket 6
@table
ID NAME IP PORT SOCK
-----
0 aaaa 127.0.0.1 9000 4
1 bbbb 127.0.0.1 9001 5
2 ccc 127.0.0.1 9002 6
-----
server>

damid@damid-U31Jg: ~/Desktop/edit
bbbb >>
hello!
bbbb >>
@table
ID NAME IP PORT SOCK
-----
0 aaaa 127.0.0.1 9000 5
1 ccc 127.0.0.1 9002 6
-----
bbbb >>
ccc : hihi

aaaa leaves the chatting room
@table
ID NAME IP PORT SOCK
-----
0 ccc 127.0.0.1 9002 6
-----
bbbb >>

damid@damid-U31Jg: ~/Desktop/edit
fail to find user : cccc

aaaa >>
@invite ccc
aaaa >>
Session Connected with ccc
@table
ID NAME IP PORT SOCK
-----
0 bbbb 127.0.0.1 9001 5
1 ccc 127.0.0.1 9002 6
-----
aaaa >>
ccc : hihi

@leave
aaaa >>

damid@damid-U31Jg: ~/Desktop/edit
@yes
Join the Session
ccc >>
@table
ID NAME IP PORT SOCK
-----
0 aaaa 127.0.0.1 9000 5
1 bbbb 127.0.0.1 9001 6
-----
ccc >>
hihi
ccc >>
aaaa leaves the chatting room
@table
ID NAME IP PORT SOCK
-----
0 bbbb 127.0.0.1 9001 6
-----
ccc >>
```