

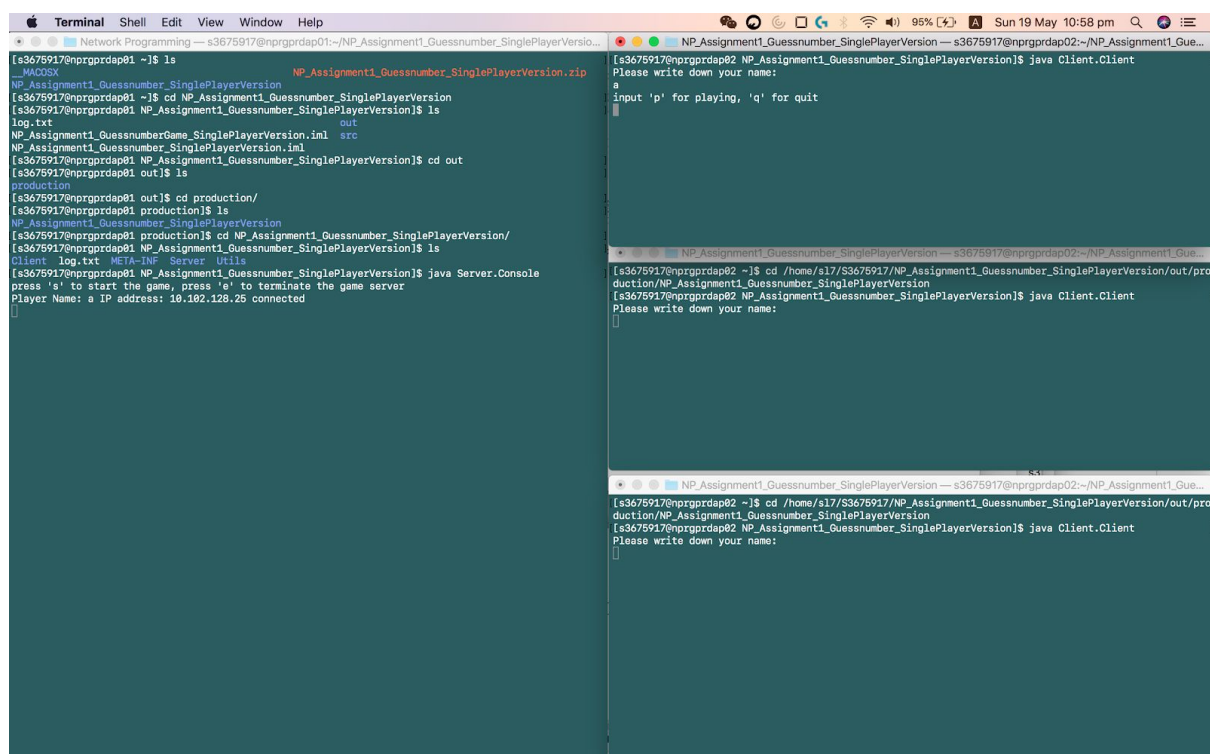
```
[s3675917@nprgprdap01 ~]$ ls
_MADOSX
NP_Assignment1_Guessnumber_SinglePlayerVersion.zip
NP_Assignment1_Guessnumber_SinglePlayerVersion
[s3675917@nprgprdap01 ~]$ cd NP_Assignment1_Guessnumber_SinglePlayerVersion
[s3675917@nprgprdap01 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ ls
log.txt
out
NP_Assignment1_GuessnumberGame_SinglePlayerVersion.iml
src
NP_Assignment1_Guessnumber_SinglePlayerVersion.iml
[s3675917@nprgprdap01 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ cd out
[s3675917@nprgprdap01 out]$ ls
production
[s3675917@nprgprdap01 out]$ cd production/
[s3675917@nprgprdap01 production]$ ls
NP_Assignment1_Guessnumber_SinglePlayerVersion
[s3675917@nprgprdap01 production]$ cd NP_Assignment1_Guessnumber_SinglePlayerVersion/
[s3675917@nprgprdap01 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ ls
Client log.txt META-INF Server Utils
[s3675917@nprgprdap01 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ java Server.Console
press 's' to start the game, press 'e' to terminate the game server

[s3675917@nprgprdap02 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ java Client.Client
Please write down your name:

[s3675917@nprgprdap02 ~]$ cd /home/s17/S3675917/NP_Assignment1_Guessnumber_SinglePlayerVersion/out/pro
duction/NP_Assignment1_Guessnumber_SinglePlayerVersion
[s3675917@nprgprdap02 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ java Client.Client
Please write down your name:

[s3675917@nprgprdap02 ~]$ cd /home/s17/S3675917/NP_Assignment1_Guessnumber_SinglePlayerVersion/out/pro
duction/NP_Assignment1_Guessnumber_SinglePlayerVersion
[s3675917@nprgprdap02 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ java Client.Client
Please write down your name:
```

The left window is the server console, the left three are client consoles. Server shows the instruction about how to control the server side either press 's' to start or 'e' to terminate.



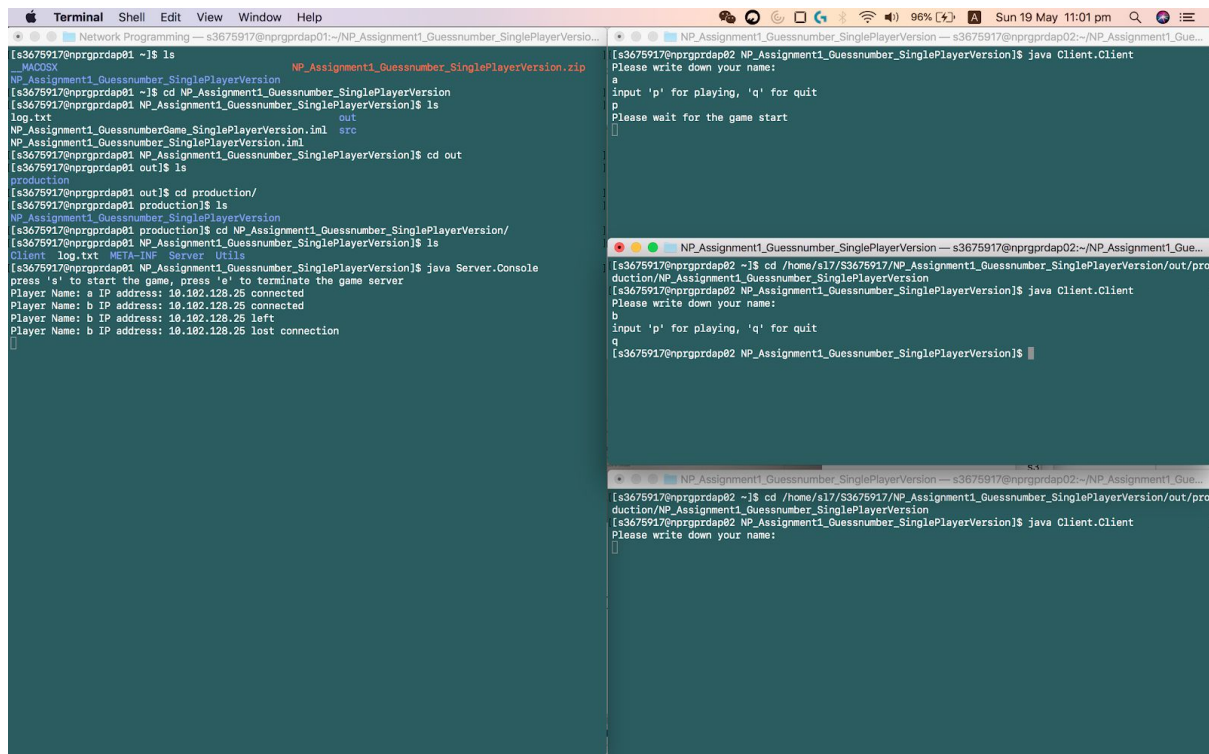
```
[s3675917@nprgprdap01 ~]$ ls
_MADOSX
NP_Assignment1_Guessnumber_SinglePlayerVersion.zip
NP_Assignment1_Guessnumber_SinglePlayerVersion
[s3675917@nprgprdap01 ~]$ cd NP_Assignment1_Guessnumber_SinglePlayerVersion
[s3675917@nprgprdap01 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ ls
log.txt
out
NP_Assignment1_GuessnumberGame_SinglePlayerVersion.iml
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NP_Assignment1_Guessnumber_SinglePlayerVersion.iml
[s3675917@nprgprdap01 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ cd out
[s3675917@nprgprdap01 out]$ ls
production
[s3675917@nprgprdap01 out]$ cd production/
[s3675917@nprgprdap01 production]$ ls
NP_Assignment1_Guessnumber_SinglePlayerVersion
[s3675917@nprgprdap01 production]$ cd NP_Assignment1_Guessnumber_SinglePlayerVersion/
[s3675917@nprgprdap01 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ ls
Client log.txt META-INF Server Utils
[s3675917@nprgprdap01 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ java Server.Console
press 's' to start the game, press 'e' to terminate the game server
Player Name: a IP address: 10.102.128.25 connected

[s3675917@nprgprdap02 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ java Client.Client
Please write down your name:
a
input 'p' for playing, 'q' for quit

[s3675917@nprgprdap02 ~]$ cd /home/s17/S3675917/NP_Assignment1_Guessnumber_SinglePlayerVersion/out/pro
duction/NP_Assignment1_Guessnumber_SinglePlayerVersion
[s3675917@nprgprdap02 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ java Client.Client
Please write down your name:

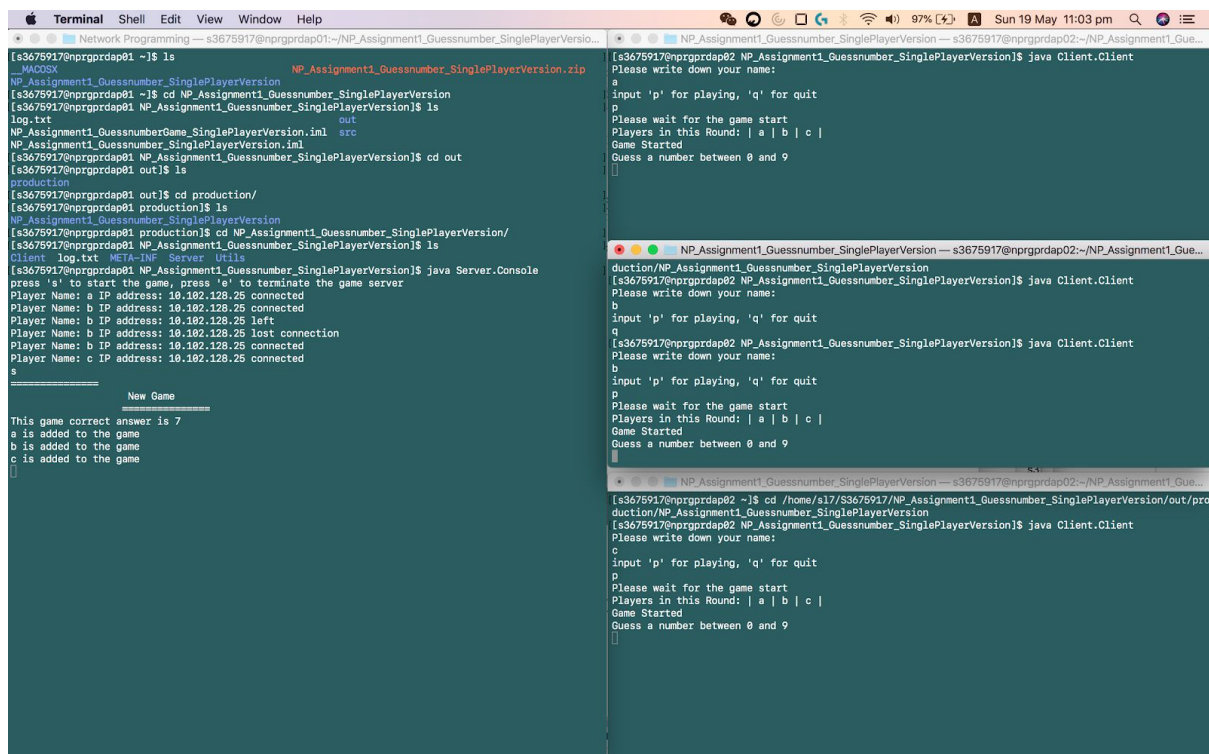
[s3675917@nprgprdap02 ~]$ cd /home/s17/S3675917/NP_Assignment1_Guessnumber_SinglePlayerVersion/out/pro
duction/NP_Assignment1_Guessnumber_SinglePlayerVersion
[s3675917@nprgprdap02 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ java Client.Client
Please write down your name:
```

When client top insert its name 'a', server will show it's name and ip address. The instruction then is showing on client screen that input 'p' to play or 'q' to quit.



```
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_MADOSX
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NP_Assignment1_Guessnumber_SinglePlayerVersion
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[s3675917@nprgprdap01 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ ls
log.txt
out
NP_Assignment1_GuessnumberGame_SinglePlayerVersion.iml
NP_Assignment1_Guessnumber_SinglePlayerVersion.iml
[s3675917@nprgprdap01 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ cd out
[s3675917@nprgprdap01 out]$ ls
production
[s3675917@nprgprdap01 out]$ cd production/
[s3675917@nprgprdap01 production]$ ls
NP_Assignment1_Guessnumber_SinglePlayerVersion
[s3675917@nprgprdap01 production]$ cd NP_Assignment1_Guessnumber_SinglePlayerVersion/
[s3675917@nprgprdap01 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ ls
Client log.txt META-INF Server Utils
[s3675917@nprgprdap01 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ java Server.Console
press 'a' to start the game, press 'e' to terminate the game server
Player Name: a IP address: 10.102.128.25 connected
Player Name: b IP address: 10.102.128.25 connected
Player Name: b IP address: 10.102.128.25 left
Player Name: b IP address: 10.102.128.25 lost connection
[s3675917@nprgprdap02 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ java Client.Client
Please write down your name:
a
input 'p' for playing, 'q' for quit
p
Please wait for the game start
[s3675917@nprgprdap02 NP_Assignment1_Guessnumber_SinglePlayerVersion]$
[s3675917@nprgprdap02 ~]$ cd /home/s17/S3675917/NP_Assignment1_Guessnumber_SinglePlayerVersion/out/production/NP_Assignment1_Guessnumber_SinglePlayerVersion
[s3675917@nprgprdap02 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ java Client.Client
Please write down your name:
b
input 'p' for playing, 'q' for quit
q
[s3675917@nprgprdap02 NP_Assignment1_Guessnumber_SinglePlayerVersion]$
```

When client insert 'p', it will be put to the queue for the game(top client). While if 'q' is inserted, the client will be terminated, and a lost connection message will be showed on server by the keep alive thread.



```
[s3675917@nprgprdap01 ~]$ ls
_MADOSX
NP_Assignment1_Guessnumber_SinglePlayerVersion.zip
NP_Assignment1_Guessnumber_SinglePlayerVersion
[s3675917@nprgprdap01 ~]$ cd NP_Assignment1_Guessnumber_SinglePlayerVersion
[s3675917@nprgprdap01 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ ls
log.txt
out
NP_Assignment1_GuessnumberGame_SinglePlayerVersion.iml
NP_Assignment1_Guessnumber_SinglePlayerVersion.iml
[s3675917@nprgprdap01 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ cd out
[s3675917@nprgprdap01 out]$ ls
production
[s3675917@nprgprdap01 out]$ cd production/
[s3675917@nprgprdap01 production]$ ls
NP_Assignment1_Guessnumber_SinglePlayerVersion
[s3675917@nprgprdap01 production]$ cd NP_Assignment1_Guessnumber_SinglePlayerVersion/
[s3675917@nprgprdap01 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ ls
Client log.txt META-INF Server Utils
[s3675917@nprgprdap01 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ java Server.Console
press 'a' to start the game, press 'e' to terminate the game server
Player Name: a IP address: 10.102.128.25 connected
Player Name: b IP address: 10.102.128.25 connected
Player Name: b IP address: 10.102.128.25 left
Player Name: b IP address: 10.102.128.25 lost connection
Player Name: b IP address: 10.102.128.25 connected
Player Name: c IP address: 10.102.128.25 connected
s
=====
New Game
=====
This game correct answer is 7
a is added to the game
b is added to the game
c is added to the game
[s3675917@nprgprdap02 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ java Client.Client
Please write down your name:
a
input 'p' for playing, 'q' for quit
p
Please wait for the game start
Players in this Round: | a | b | c |
Game Started
Guess a number between 0 and 9
[s3675917@nprgprdap02 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ java Client.Client
Please write down your name:
b
input 'p' for playing, 'q' for quit
p
Please wait for the game start
Players in this Round: | a | b | c |
Game Started
Guess a number between 0 and 9
[s3675917@nprgprdap02 ~]$ cd /home/s17/S3675917/NP_Assignment1_Guessnumber_SinglePlayerVersion/out/production/NP_Assignment1_Guessnumber_SinglePlayerVersion
[s3675917@nprgprdap02 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ java Client.Client
Please write down your name:
c
input 'p' for playing, 'q' for quit
p
Please wait for the game start
Players in this Round: | a | b | c |
Game Started
Guess a number between 0 and 9
```

When all the clients are ready for the game, if server presses 's' the game will start.

```
[s3675917@nprgrdp01 ~]$ ls
./MACOSX
NP_Assignment1_Guessnumber_SinglePlayerVersion.zip
[s3675917@nprgrdp01 ~]$ cd NP_Assignment1_Guessnumber_SinglePlayerVersion
[s3675917@nprgrdp01 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ ls
log.txt
NP_Assignment1_GuessnumberGame_SinglePlayerVersion.iml  src
NP_Assignment1_Guessnumber_SinglePlayerVersion.iml
[s3675917@nprgrdp01 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ cd out
[s3675917@nprgrdp01 out]$ ls
production
[s3675917@nprgrdp01 out]$ cd production/
[s3675917@nprgrdp01 production]$ ls
NP_Assignment1_Guessnumber_SinglePlayerVersion
[s3675917@nprgrdp01 production]$ cd NP_Assignment1_Guessnumber_SinglePlayerVersion/
[s3675917@nprgrdp01 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ ls
Client log.txt  META-INF  Server  Utils
[s3675917@nprgrdp01 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ java Server.Console
press 'a' to start the game, press 'e' to terminate the game server
Player Name: a IP address: 10.102.128.25 connected
Player Name: b IP address: 10.102.128.25 connected
Player Name: b IP address: 10.102.128.25 left
Player Name: b IP address: 10.102.128.25 lost connection
Player Name: b IP address: 10.102.128.25 connected
Player Name: c IP address: 10.102.128.25 connected
s

New Game

This game correct answer is 7
a is added to the game
b is added to the game
c is added to the game
a inputs null, 3 attempts left
a lost Connection or quit the game
c inputs null, 3 attempts left
c lost Connection or quit the game
b inputs null, 3 attempts left
b lost Connection or quit the game
Ranking: [a lose] [b lose] [c lose]

Game over, press 's' to start the game, press 'e' to terminate the game server
Player Name: a IP address: 10.102.128.25 time out
Player Name: c IP address: 10.102.128.25 time out
Player Name: b IP address: 10.102.128.25 time out
Player Name: a IP address: 10.102.128.25 lost connection
Player Name: c IP address: 10.102.128.25 lost connection
Player Name: b IP address: 10.102.128.25 lost connection

[s3675917@nprgrdp02 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ java Client.Client
Please write down your name:
a
input 'p' for playing, 'q' for quit
p
Please wait for the game start
Players in this Round: | a | b | c |
Game Started
Guess a number between 0 and 9
Time Out, please relaunch the game
[s3675917@nprgrdp02 NP_Assignment1_Guessnumber_SinglePlayerVersion]$

[s3675917@nprgrdp02 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ java Client.Client
Please write down your name:
b
input 'p' for playing, 'q' for quit
p
Please wait for the game start
Players in this Round: | a | b | c |
Game Started
Guess a number between 0 and 9
Time Out, please relaunch the game
[s3675917@nprgrdp02 NP_Assignment1_Guessnumber_SinglePlayerVersion]$

[s3675917@nprgrdp02 NP_Assignment1_Guessnumber_SinglePlayerVersion]$ java Client.Client
Please write down your name:
c
input 'p' for playing, 'q' for quit
p
Please wait for the game start
Players in this Round: | a | b | c |
Game Started
Guess a number between 0 and 9
Time Out, please relaunch the game
[s3675917@nprgrdp02 NP_Assignment1_Guessnumber_SinglePlayerVersion]$
```

After 60 seconds if client don't finish its game, a timeout will be caused and the connection will be terminated.

About The Queue:

I was doing this screenshot at home. The queue works but only four connections to the netprog2 were allowed through private connection, so I couldn't do the demo here.

The Log:

The Log will be stored in the log.txt when the server input 'e' to exit. The new log will be appended to the old data.