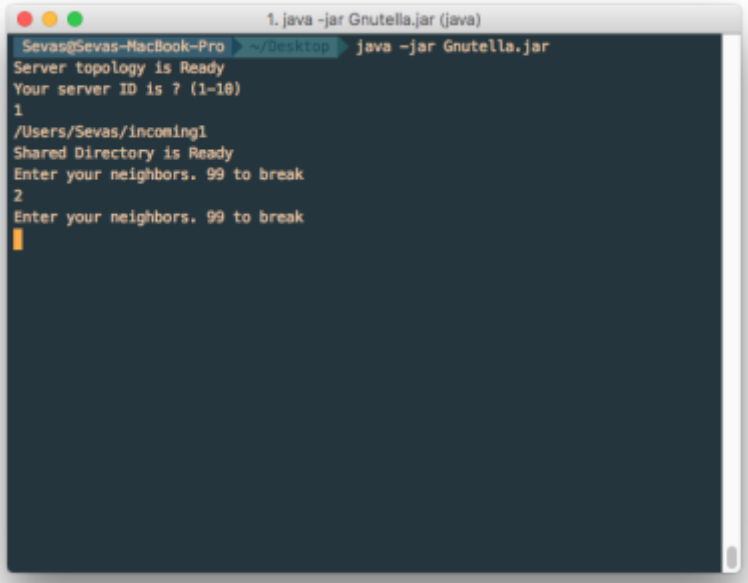
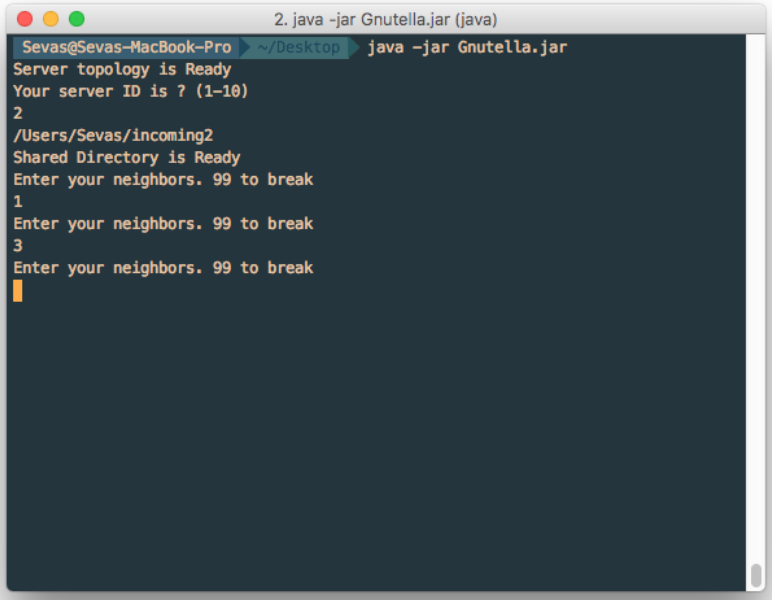
1. Initial State

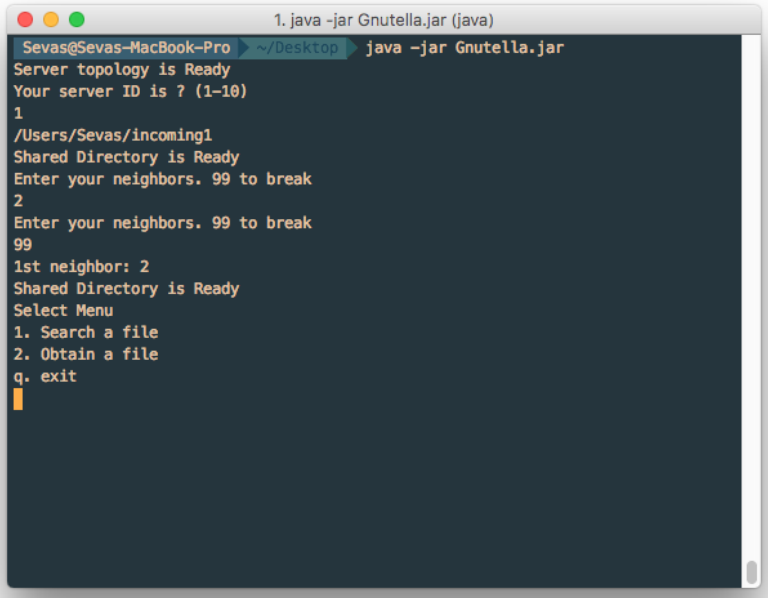


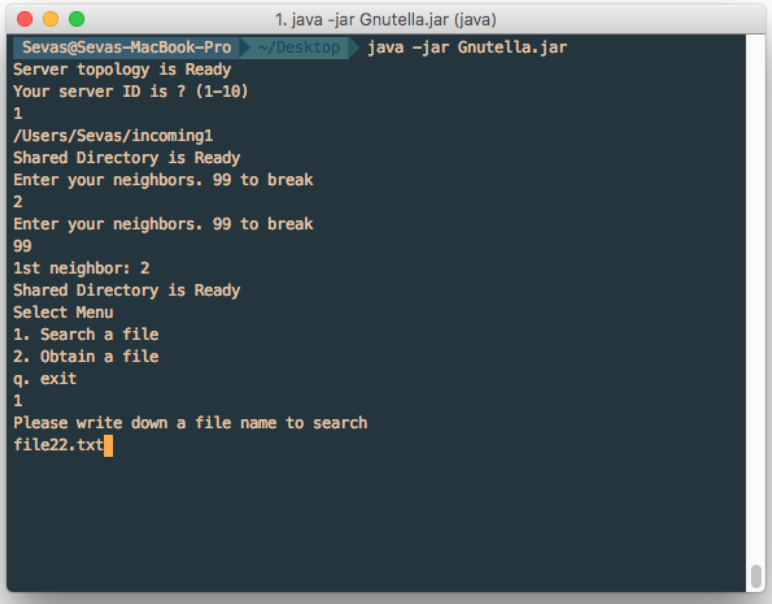


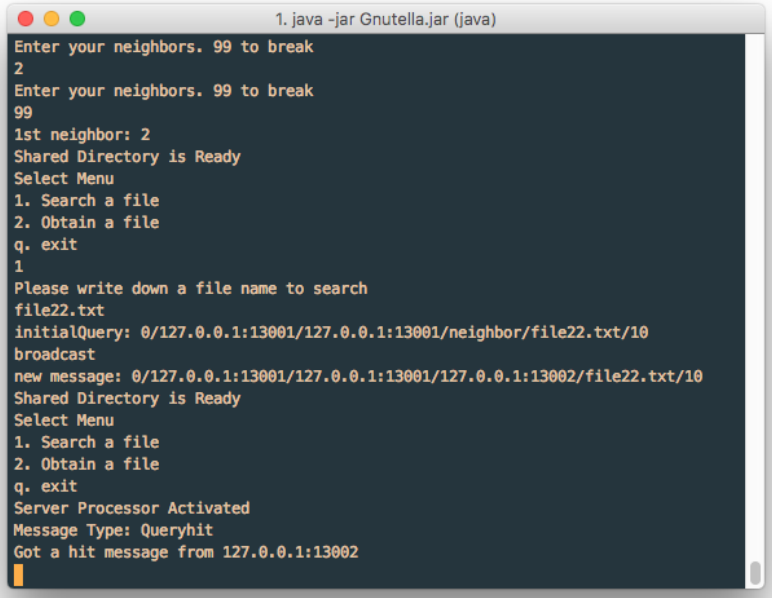
At first, it is supposed to enter server id and the neighbors of this servent. To finish entering neighbors please enter ‘99’. In this screenshot, I assumed that there are only 3 servents in this network linearly. Maximum value is limited to 10 but it can be changed according to the size of network topology.

2. Search

When the server id and its neighbors are set, user can choose the menu. There are 3 options. First, user can search a file with the file name in the entire network. Secondly, according to the result of searching, user can download the file from the servents that hold the file.
(Currently, servent 1 is holding file11, file12, file13, … , file 20 and servent 2 is holding file21, file 22, …, file30 and it is same for servent 3 as well.

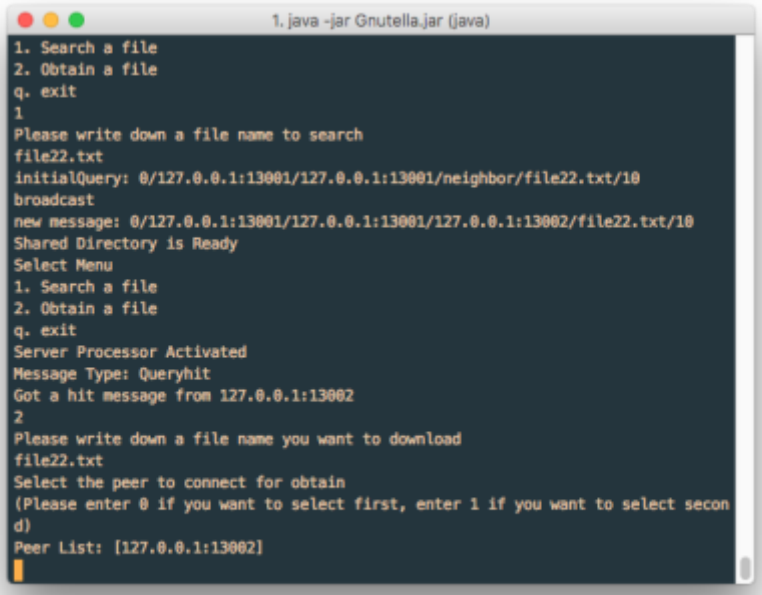


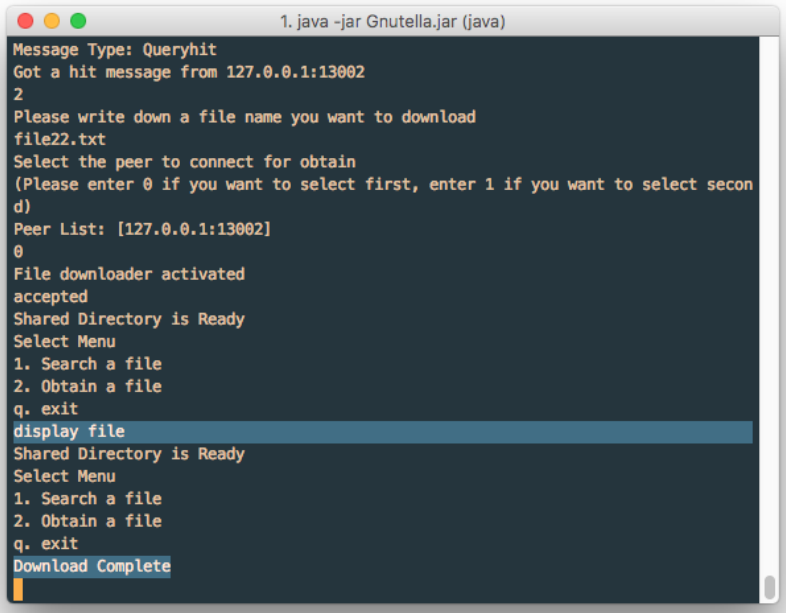




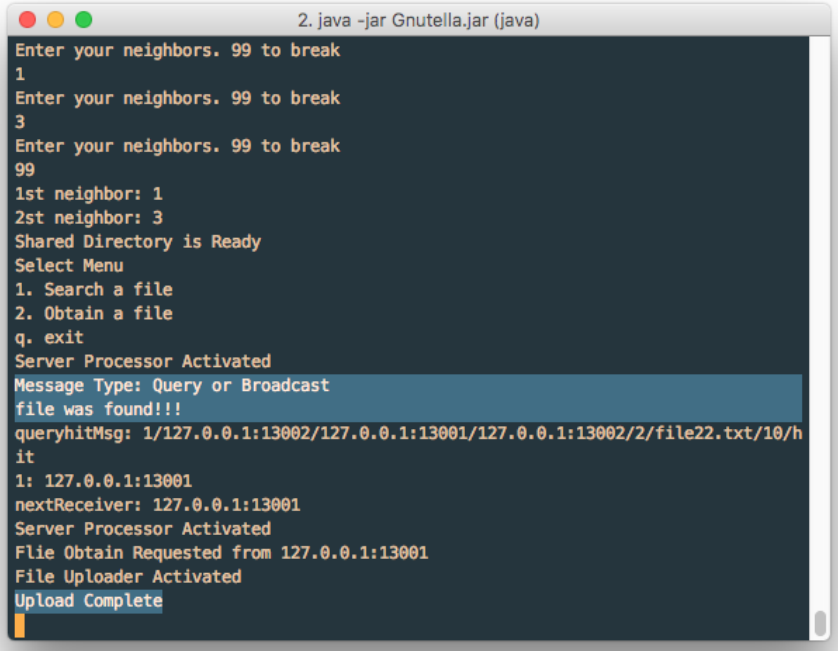
Since 2nd servent is holding 'file22.txt', the 1st servent got a query hit message after invoking a query by broadcast. To download the file, we can select 2nd menu, obtain a file. Then user supposed to select the servent that hold the file. The following screenshot shows that 2nd servent is holding the file. Let's enter '0' (the 1st servent of the list) so that we can start downloading the file.

3. Obtain

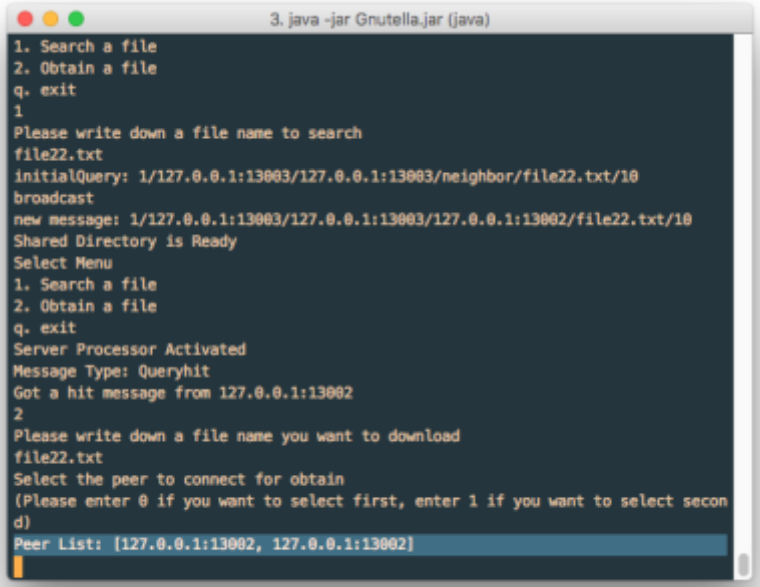


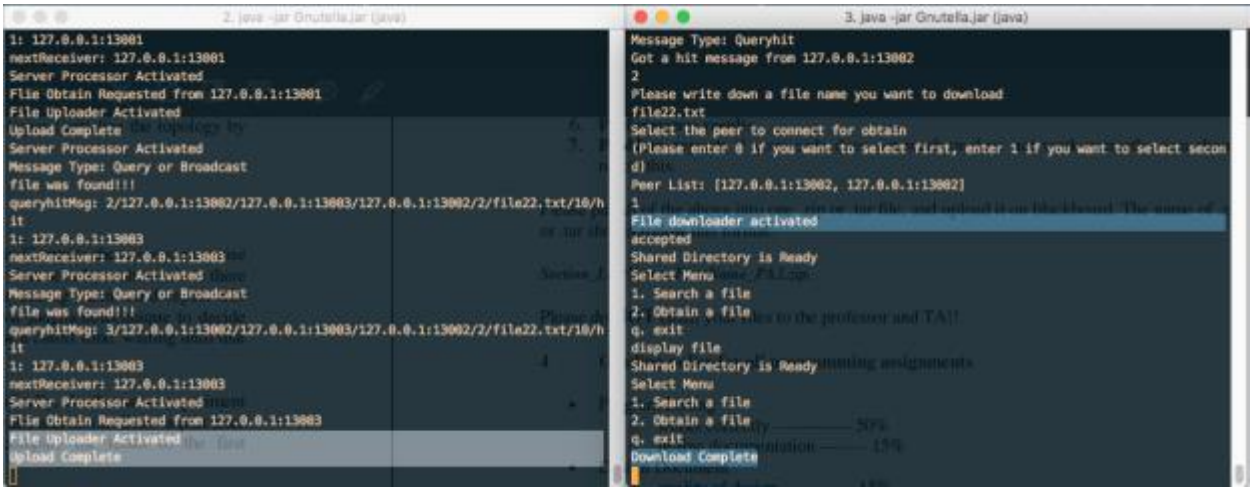


Then the servent starts downloading the file and the target server starts uploading. Below screen shot indicates the uploading of 2nd servent.



Now, since 1st servent downloaded 'file22.txt', 3rd servent can find 'file22.txt' from both 1st and 2nd servents. Then 3rd servent can select the servent to download (0 or 1)




2. java -jar Gnutella.jar (java)
1: 127.0.0.1:13001
nextReceiver: 127.0.0.1:13001
Server Processor Activated
File Obtain Requested from 127.0.0.1:13001
File Uploader Activated
Upload Complete
Server Processor Activated
Message Type: Query or Broadcast
file was found!!!
queryhitMsg: 2/127.0.0.1:13002/127.0.0.1:13003/127.0.0.1:13002/2/file22.txt/10/h
it
1: 127.0.0.1:13003
nextReceiver: 127.0.0.1:13003
Server Processor Activated
Message Type: Query or Broadcast
file was found!!!
queryhitMsg: 3/127.0.0.1:13002/127.0.0.1:13003/127.0.0.1:13002/2/file22.txt/10/h
it
1: 127.0.0.1:13003
nextReceiver: 127.0.0.1:13003
Server Processor Activated
File Obtain Requested from 127.0.0.1:13003
File Uploader Activated
Upload Complete
3. java -jar Gnutella.jar (java)
Message Type: Queryhit
Got a hit message from 127.0.0.1:13002
2
Please write down a file name you want to download
file22.txt
Select the peer to connect for obtain
(Please enter 0 if you want to select first, enter 1 if you want to select secon
d)
Peer List: [127.0.0.1:13002, 127.0.0.1:13002]
1
File downloader activated
accepted
Shared Directory is Ready
Select Menu
1. Search a file
2. Obtain a file
q. exit
display file
Shared Directory is Ready
Select Menu
1. Search a file
2. Obtain a file
q. exit
Download Complete