Testing Screenshots
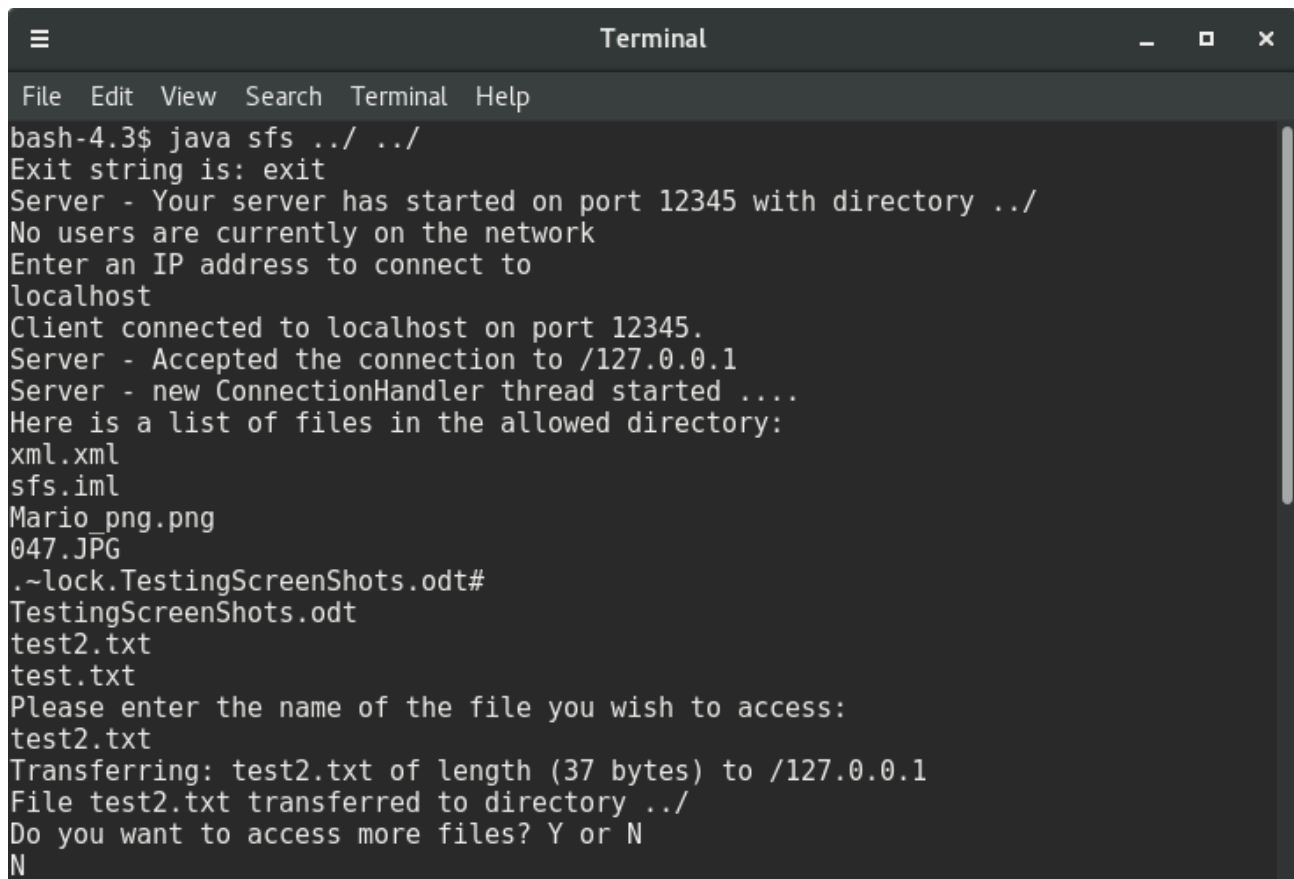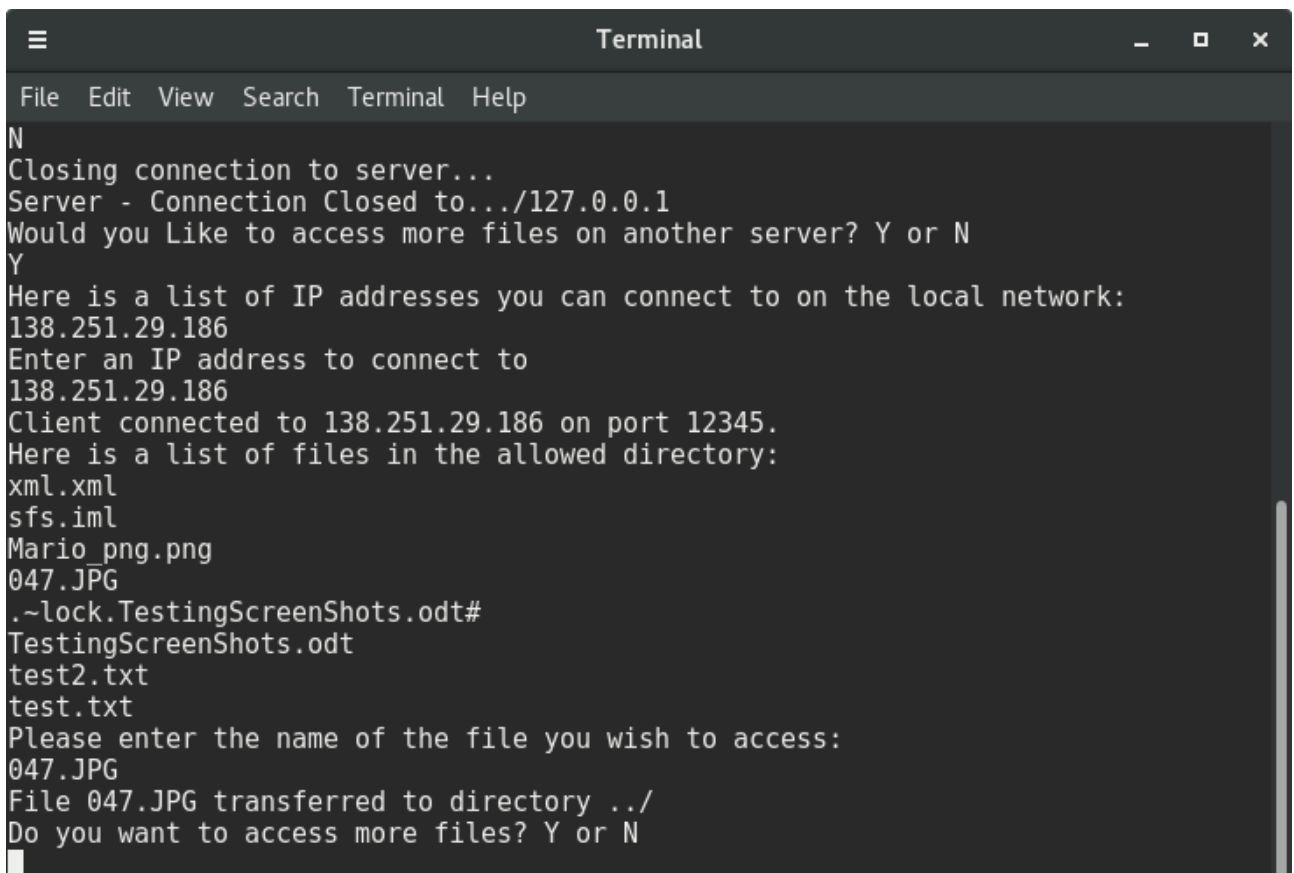
Screenshots of the program working as expected, this is the first user:

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≡                              Terminal                    _  □  ×

File  Edit  View  Search  Terminal  Help

bash-4.3$ java sfs ../ ../
Exit string is: exit
Server - Your server has started on port 12345 with directory ../
No users are currently on the network
Enter an IP address to connect to
localhost
Client connected to localhost on port 12345.
Server - Accepted the connection to /127.0.0.1
Server - new ConnectionHandler thread started ....
Here is a list of files in the allowed directory:
xml.xml
sfs.iml
Mario_png.png
047.JPG
.~lock.TestingScreenShots.odt#
TestingScreenShots.odt
test2.txt
test.txt
Please enter the name of the file you wish to access:
test2.txt
Transferring: test2.txt of length (37 bytes) to /127.0.0.1
File test2.txt transferred to directory ../
Do you want to access more files? Y or N
N
```

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≡                              Terminal                    _  □  ×

File  Edit  View  Search  Terminal  Help

N
Closing connection to server...
Server - Connection Closed to.../127.0.0.1
Would you Like to access more files on another server? Y or N
Y
Here is a list of IP addresses you can connect to on the local network:
138.251.29.186
Enter an IP address to connect to
138.251.29.186
Client connected to 138.251.29.186 on port 12345.
Here is a list of files in the allowed directory:
xml.xml
sfs.iml
Mario_png.png
047.JPG
.~lock.TestingScreenShots.odt#
TestingScreenShots.odt
test2.txt
test.txt
Please enter the name of the file you wish to access:
047.JPG
File 047.JPG transferred to directory ../
Do you want to access more files? Y or N
```

This is the second user:

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Activities    LibreOffice Writer

File  Edit  View  Search  Terminal  Help
bash-4.3$ java sfs ../ ../
Server - Your server has started on port 12345 with directory ../
Exit string is: exit
No users are currently on the network
Enter an IP address to connect to
localhost
Client connected to localhost on port 12345.
Server - Accepted the connection to /127.0.0.1
Server - new ConnectionHandler thread started ....
Here is a list of files in the allowed directory:
xml.xml
sfs.iml
Mario_png.png
047.JPG
.~lock.TestingScreenShots.odt#
TestingScreenShots.odt
test2.txt
test.txt
Please enter the name of the file you wish to access:
test.txt
Transferring: test.txt of length (13 bytes) to /127.0.0.1
File test.txt transferred to directory ../
Do you want to access more files? Y or N
N
Closing connection to server...
Server - Connection Closed to.../127.0.0.1
Would you Like to access more files on another server? Y or N
y
Invalid input please re-enter
Y
Here is a list of IP addresses you can connect to on the local network:
138.251.29.163
Enter an IP address to connect to
Server - Accepted the connection to /138.251.29.163
Server - new ConnectionHandler thread started ....
Transferring: 047.JPG of length (1307163 bytes) to /138.251.29.163
Server - Connection Closed to.../138.251.29.163
138.251.29.163
Errors: Connection to 138.251.29.163 on port 12345. Connection refused
Would you Like to access more files on another server? Y or N
Y
No users are currently on the network
Enter an IP address to connect to
```

If the server is not connected, then a suitable error message is shown, and the program also updates the list of IP users, when the first computer goes offline, and gives an error message when the user attempts to connect to them.

Initially in user 1, the program does not show the IP as the UDP packets have not circulated, however after a few seconds and operations, it does show the other IP address on the network and connects to it and get files off both the LocalHost and the other directory.

If the file does not exists, a suitable message arrives for the user, along with input validation if the user does not enter the correct thing into the program. The program also gives the list of files in the directory and allows the user to transfer different types of files into the directory:


```
047.JPG
File 047.JPG transferred to directory ../
Do you want to access more files? Y or N
N
Closing connection to server...
Would you Like to access more files on another server? Y or N
Y
Here is a list of IP addresses you can connect to on the local network:
138.251.29.186
Enter an IP address to connect to
localhost
Client connected to localhost on port 12345.
Server - Accepted the connection to /127.0.0.1
Server - new ConnectionHandler thread started ....
Here is a list of files in the allowed directory:
xml.xml
sfs.iml
Mario_png.png
047.JPG
.~lock.TestingScreenShots.odt#
TestingScreenShots.odt
test2.txt
test.txt
Please enter the name of the file you wish to access:
hello world
File hello world not found.
Do you want to access more files? Y or N

Invalid String Re-enter Y or N

Invalid String Re-enter Y or N

Invalid String Re-enter Y or N

Invalid String Re-enter Y or N

Invalid String Re-enter Y or N
Y
Here is a list of files in the allowed directory:
xml.xml
sfs.iml
Mario_png.png
047.JPG
.~lock.TestingScreenShots.odt#
TestingScreenShots.odt
test2.txt
test.txt
Please enter the name of the file you wish to access:

File  not found.
Do you want to access more files? Y or N
```
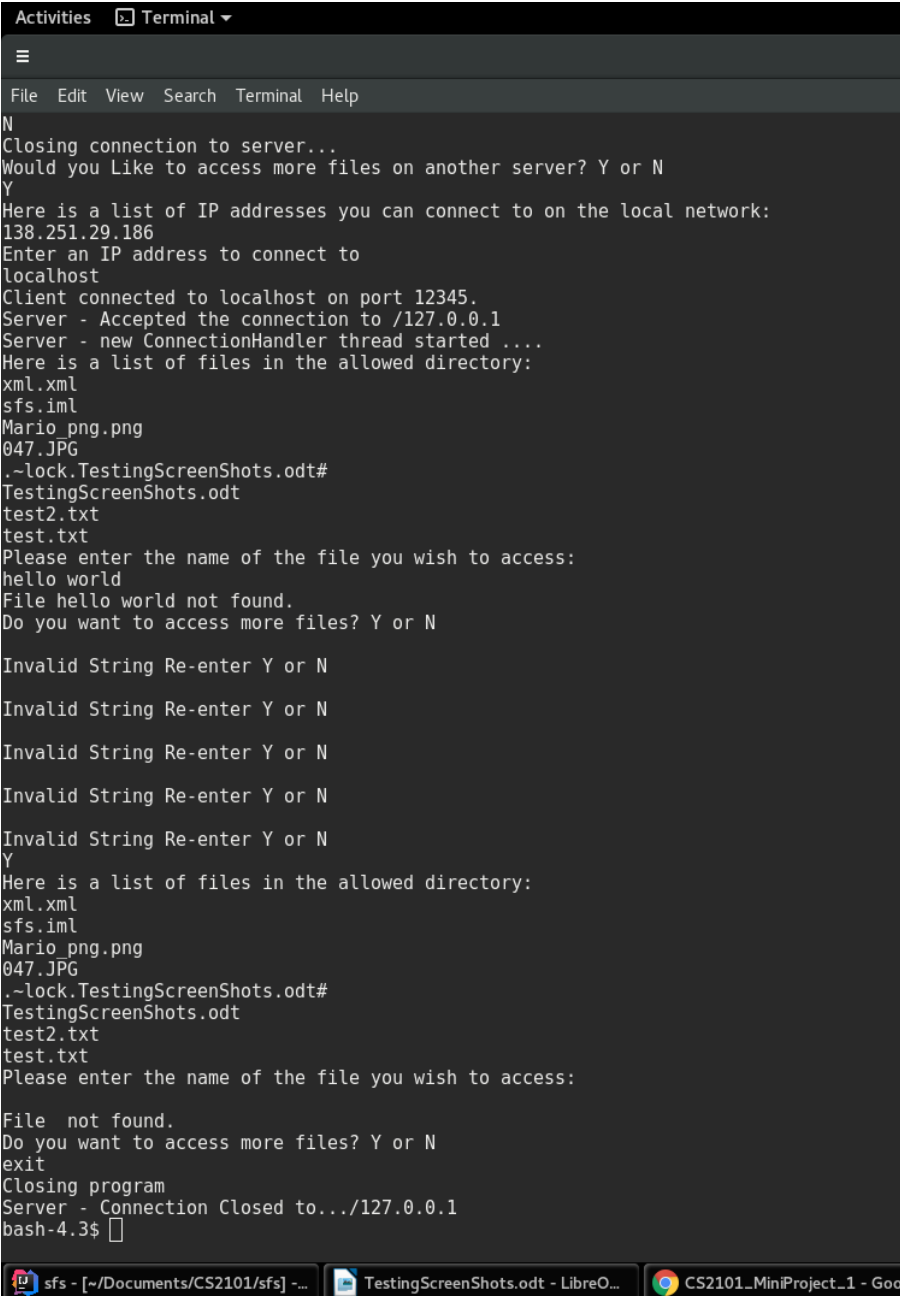
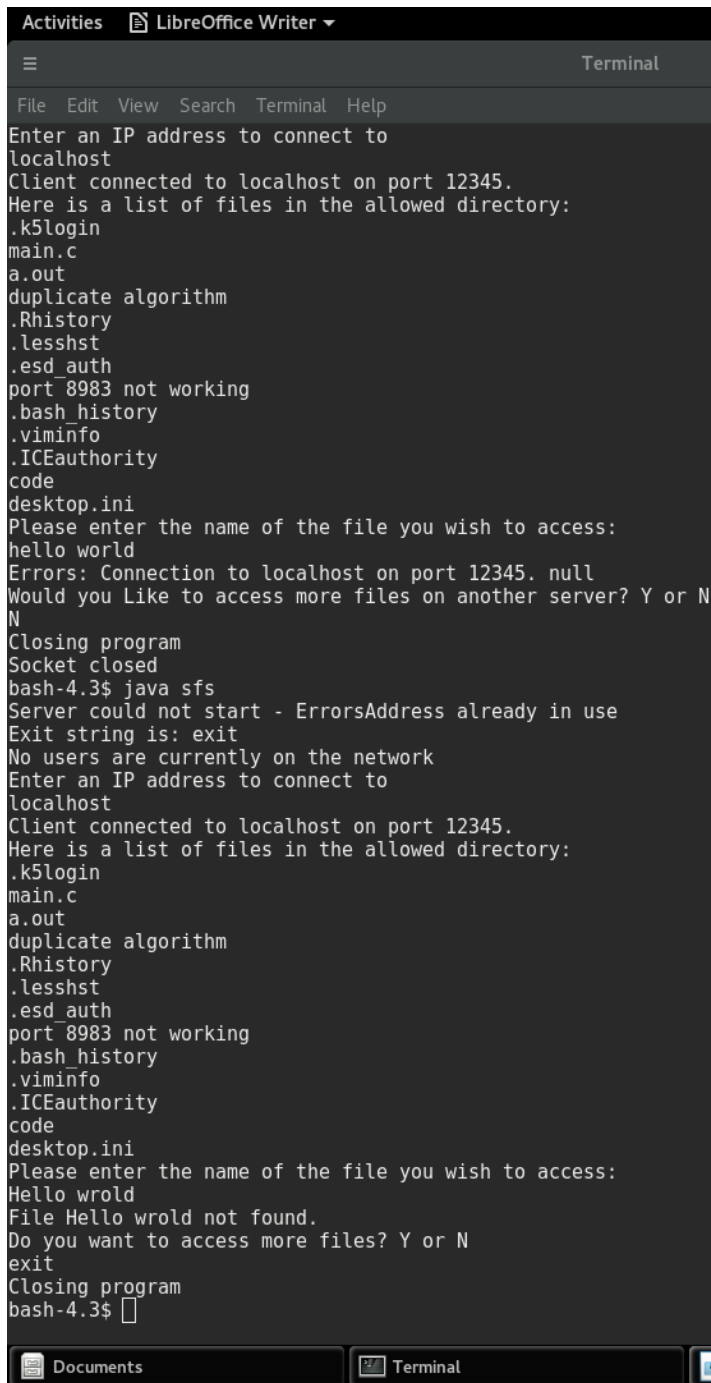The exit string also worked as expected:

If the server shuts off before the client is done, an error message is thrown, and the user is given the option of connecting to another server.:


```
138.251.29.163
Enter an IP address to connect to
Server - Accepted the connection to /138.251.29.163
Server - new ConnectionHandler thread started ....
Transferring: 047.JPG of length (1307163 bytes) to /138.251.29.163
Server - Connection Closed to.../138.251.29.163
138.251.29.163
Errors: Connection to 138.251.29.163 on port 12345. Connection refused
Would you Like to access more files on another server? Y or N
Y
No users are currently on the network
Enter an IP address to connect to
localhost
Client connected to localhost on port 12345.
Server - Accepted the connection to /127.0.0.1
Server - new ConnectionHandler thread started ....
Here is a list of files in the allowed directory:
xml.xml
sfs.iml
Mario_png.png
047.JPG
.~lock.TestingScreenShots.odt#
TestingScreenShots.odt
test2.txt
test.txt
Please enter the name of the file you wish to access:
^Cbash-4.3$ java sfs
Exit string is: exit
Server could not start - ErrorsAddress already in use
No users are currently on the network
Enter an IP address to connect to
localhost
Client connected to localhost on port 12345.
Here is a list of files in the allowed directory:
.k5login
main.c
a.out
duplicate algorithm
.Rhistory
.lesshst
.esd_auth
port 8983 not working
.bash_history
.viminfo
.ICEauthority
code
desktop.ini
Please enter the name of the file you wish to access:
hello world
Errors: Connection to localhost on port 12345. null
Would you Like to access more files on another server? Y or N
```



```
18:40

bash-4.3$ java sfs ../ ../
Exit string is: exit
Server - Your server has started on port 12345 with directory ../
No users are currently on the network
Enter an IP address to connect to
Server - Accepted the connection to /127.0.0.1
Server - new ConnectionHandler thread started ....
^Cbash-4.3$
```

If the client shuts down halfway through, then the server also shuts off that connection handler for that client:

Left terminal:

```
Activities    LibreOffice Writer ▾

≡                                    Terminal

File  Edit  View  Search  Terminal  Help
Enter an IP address to connect to
localhost
Client connected to localhost on port 12345.
Here is a list of files in the allowed directory:
.k5login
main.c
a.out
duplicate algorithm
.Rhistory
.lesshst
.esd_auth
port 8983 not working
.bash_history
.viminfo
.ICEauthority
code
desktop.ini
Please enter the name of the file you wish to access:
hello world
Errors: Connection to localhost on port 12345. null
Would you Like to access more files on another server? Y or N
N
Closing program
Socket closed
bash-4.3$ java sfs
Server could not start - ErrorsAddress already in use
Exit string is: exit
No users are currently on the network
Enter an IP address to connect to
localhost
Client connected to localhost on port 12345.
Here is a list of files in the allowed directory:
.k5login
main.c
a.out
duplicate algorithm
.Rhistory
.lesshst
.esd_auth
port 8983 not working
.bash_history
.viminfo
.ICEauthority
code
desktop.ini
Please enter the name of the file you wish to access:
Hello wrold
File Hello wrold not found.
Do you want to access more files? Y or N
exit
Closing program
bash-4.3$ ▯

📄 Documents          💻 Terminal
```
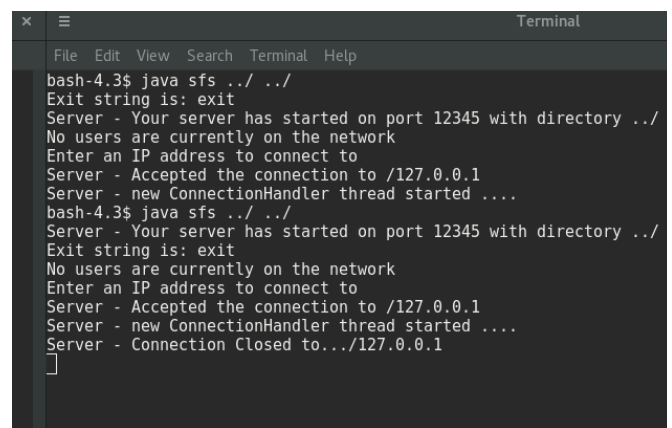
Right terminal:

```
×    ≡                              Terminal

File  Edit  View  Search  Terminal  Help
bash-4.3$ java sfs ../ ../
Exit string is: exit
Server - Your server has started on port 12345 with directory ../
No users are currently on the network
Enter an IP address to connect to
Server - Accepted the connection to /127.0.0.1
Server - new ConnectionHandler thread started ....
bash-4.3$ java sfs ../ ../
Server - Your server has started on port 12345 with directory ../
Exit string is: exit
No users are currently on the network
Enter an IP address to connect to
Server - Accepted the connection to /127.0.0.1
Server - new ConnectionHandler thread started ....
Server - Connection Closed to.../127.0.0.1
▯
```