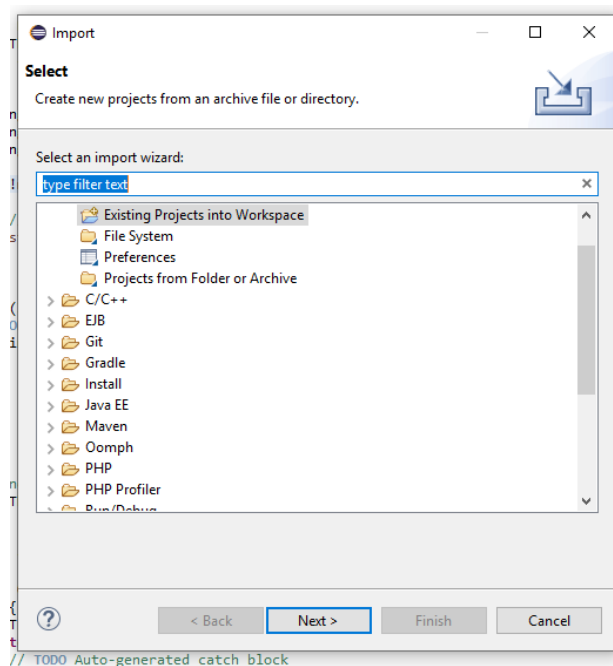I. JDK version: JavaSE-1.8

II. Introduction:
    a. Implement individually
    b. Implement Version 3
    c. Run in the command prompt inside eclipse
    d. I have put the sample user-password files called **UserList** inside Project folder, thus you do not need to relocate it when testing.
    e. Additional features:
        i. Get directory information: size (calculating each file and directory size inside the directory with recursive method) and last modified time
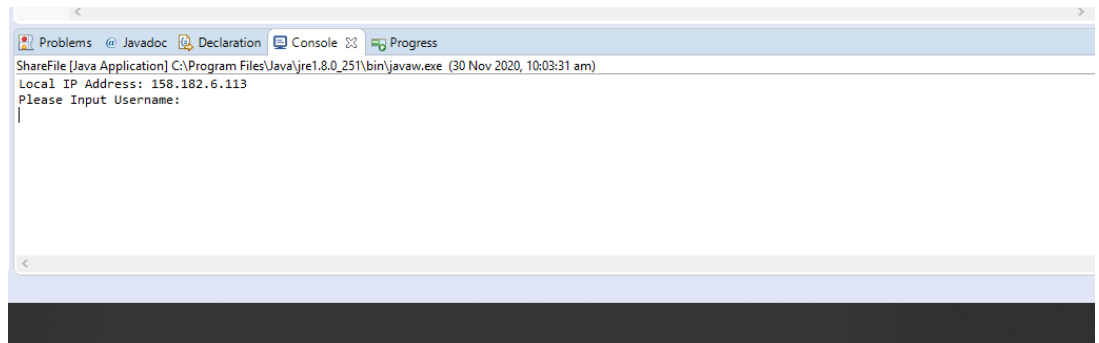   ii. Search file (with recursive method)

III. Method of running my app in the command prompt
    a. Open Eclipse
    b. Import the Project folder

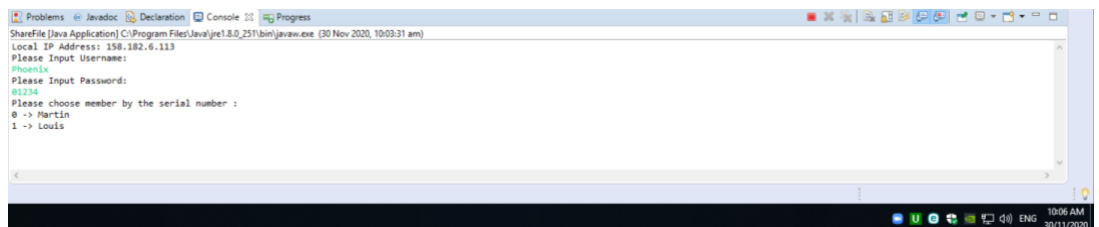   c. Run ShareFile.java

    d. Login the computer according to the UserList under *src* folder with username and password. **You have to login multiple computer by username and password according to UserList information used for testing version 3**.
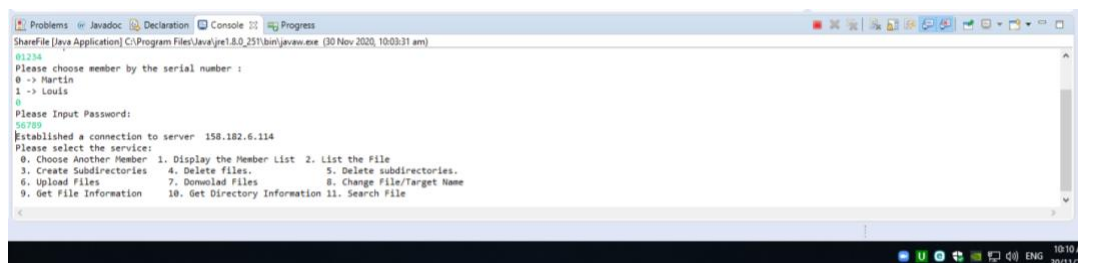
e. Wait for 30 seconds and you can see the member list and choose the member to connect by inputting the number before the name

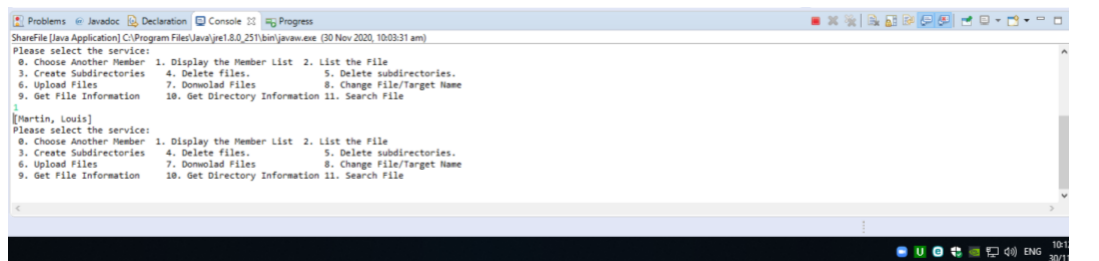f. After inputting the number, you have to input the password of the chosen computer according to the UserList. And after that, you can select the service by the number before it

g. Select service "1", you can see the member list received by UDP which could connect.

h. Select service"2", input the file address to see the file list.

```
[Martin, Louis]
Please select the service:
0. Choose Another Member  1. Display the Member List  2. List the File
3. Create Subdirectories     4. Delete files.           5. Delete subdirectories.
6. Upload Files              7. Donwolad Files          8. Change File/Target Name
9. Get File Information      10. Get Directory Information 11. Search File
2
Please input the File address:
C:\Users\e6251180\desktop
Cat.mp4 2017358 bytes
desktop.ini 282 bytes
Google Chrome.lnk 2337 bytes
Project: [dir]
Project.zip 2088052 bytes
Please select the service:
```

i. Select service "3", input the directory address you want to create.


```
ShareFile [Java Application] C:\Program Files\Java\jre1.8.0_251\bin\javaw.exe (30 Nov 2020, 10:03:31 am)
Project.zip 2088052 bytes
Please select the service:
0. Choose Another Member  1. Display the Member List  2. List the File
3. Create Subdirectories     4. Delete files.           5. Delete subdirectories.
6. Upload Files              7. Donwolad Files          8. Change File/Target Name
9. Get File Information      10. Get Directory Information 11. Search File
3
Please input the subdirectory address:
C:\Users\e6251180\desktop\Testing
Create Subdirectory Successfully
Please select the service:
0. Choose Another Member  1. Display the Member List  2. List the File
3. Create Subdirectories     4. Delete files.           5. Delete subdirectories.
6. Upload Files              7. Donwolad Files          8. Change File/Target Name
9. Get File Information      10. Get Directory Information 11. Search File
```

j. Select service "4", input the file address you want to delete.


```
Please select the service:
0. Choose Another Member  1. Display the Member List  2. List the File
3. Create Subdirectories     4. Delete files.           5. Delete subdirectories.
6. Upload Files              7. Donwolad Files          8. Change File/Target Name
9. Get File Information      10. Get Directory Information 11. Search File
4
Please input the file address:
C:\Users\e6251180\desktop\HKCat.jpg
File deleted successfully
Please select the service:
0. Choose Another Member  1. Display the Member List  2. List the File
3. Create Subdirectories     4. Delete files.           5. Delete subdirectories.
6. Upload Files              7. Donwolad Files          8. Change File/Target Name
9. Get File Information      10. Get Directory Information 11. Search File
```
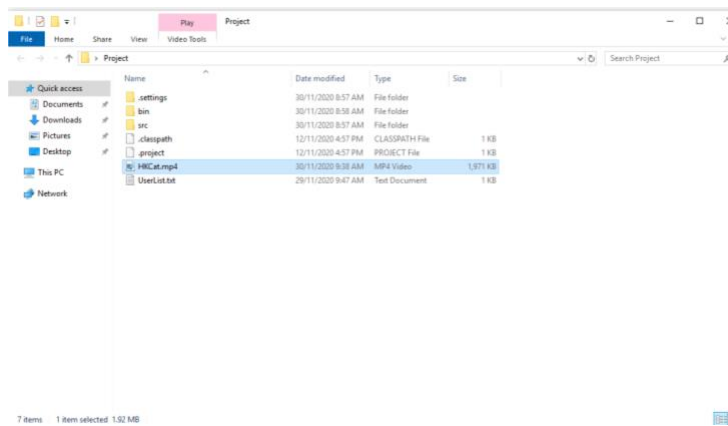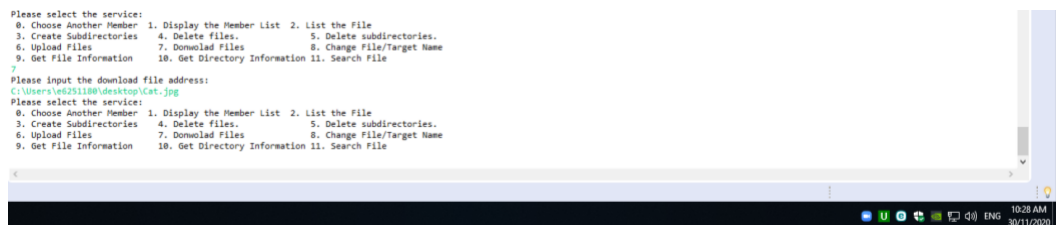
k. Select service "5", input the subdirectory address you want to delete.


```
ShareFile [Java Application] C:\Program Files\Java\jre1.8.0_251\bin\javaw.exe (30 Nov 2020, 10:03:31 am)
File deleted successfully
Please select the service:
0. Choose Another Member  1. Display the Member List  2. List the File
3. Create Subdirectories     4. Delete files.           5. Delete subdirectories.
6. Upload Files              7. Donwolad Files          8. Change File/Target Name
9. Get File Information      10. Get Directory Information 11. Search File
5
Please input the directory address:
C:\Users\e6251180\desktop\Testing
Directory deleted successfully
Please select the service:
0. Choose Another Member  1. Display the Member List  2. List the File
3. Create Subdirectories     4. Delete files.           5. Delete subdirectories.
6. Upload Files              7. Donwolad Files          8. Change File/Target Name
9. Get File Information      10. Get Directory Information 11. Search File
```
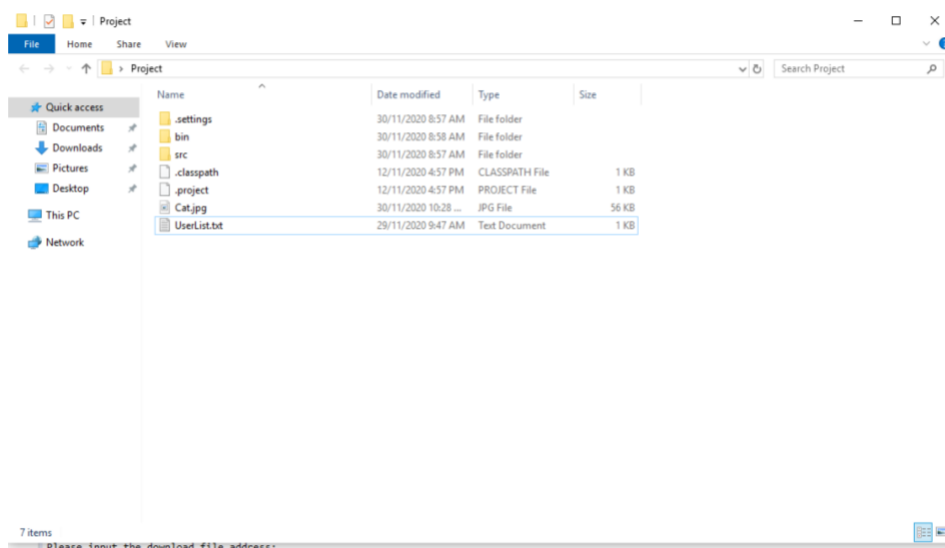
l. Select service "6", input the file address you want to upload


```
Please select the service:
0. Choose Another Member  1. Display the Member List  2. List the File
3. Create Subdirectories     4. Delete files.           5. Delete subdirectories.
6. Upload Files              7. Donwolad Files          8. Change File/Target Name
9. Get File Information      10. Get Directory Information 11. Search File
6
Please input the file address:
C:\Users\e6251180\desktop\HKCat.mp4
Please select the service:
0. Choose Another Member  1. Display the Member List  2. List the File
3. Create Subdirectories     4. Delete files.           5. Delete subdirectories.
6. Upload Files              7. Donwolad Files          8. Change File/Target Name
9. Get File Information      10. Get Directory Information 11. Search File
```

Pay attention that, the uploaded file is saved in the Project Folder default.

m. Select service "7", input the file address you want to download

Pay attention that, the downloaded file is saved in the Project Folder default.

n. Select service "8", input the current target address and the address after being renamed

o. Select service "9", input the file address you want to get information and you can see the file size and last modified time.

p. Select service "10", which is the additional feature I add for this project. Input the directory address you want to get information and you can see the directory size and last modified time. This function is implemented by calculating each directory and file size inside the directory according to the Java Recursion

q. Select service "11", which is the additional feature I add for this project. Input the file name and searched range. If the searched range is empty, the C:\Users will be applied default. This function is implemented by searching each directory according to the Java Recursion

r. Select service "0", you can choose another member to connect

IV.   Additional Information:

In demonstration video, the Martin's computer and Louis's computer has connected to the Phoenix's computer which could prove that the system could respond
to logins and serve the multiple users at the same time as requested in version 3

Martin's computer

Louis's computer