

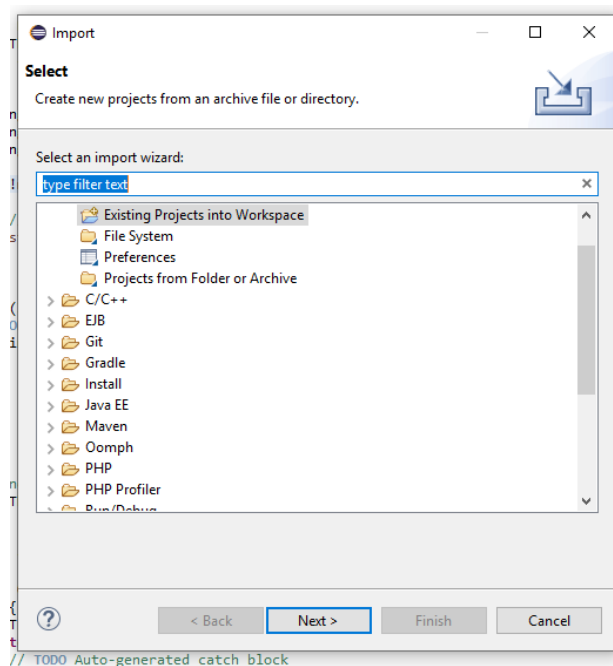
I. JDK version: JavaSE-1.8

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)

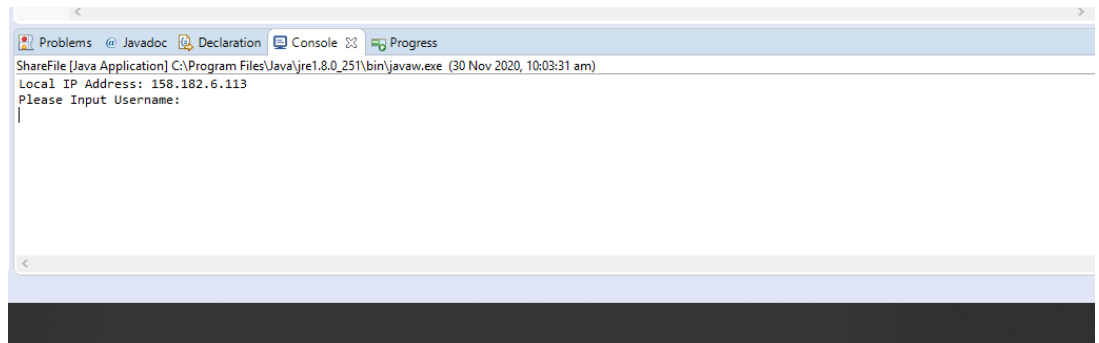
III. Method of running my app in the command prompt

- a. Open Eclipse
- b. Import the Project folder



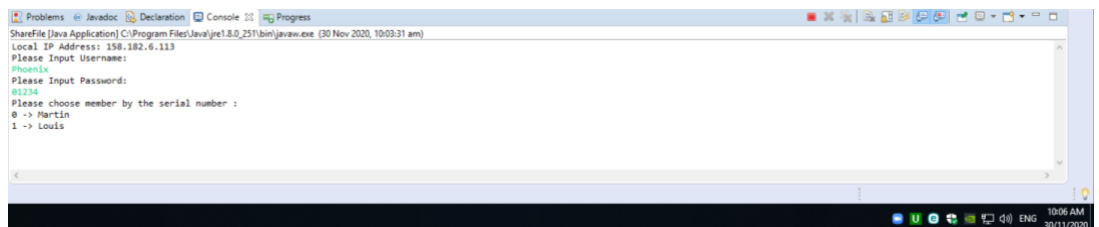
c. Run ShareFile.java

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.**



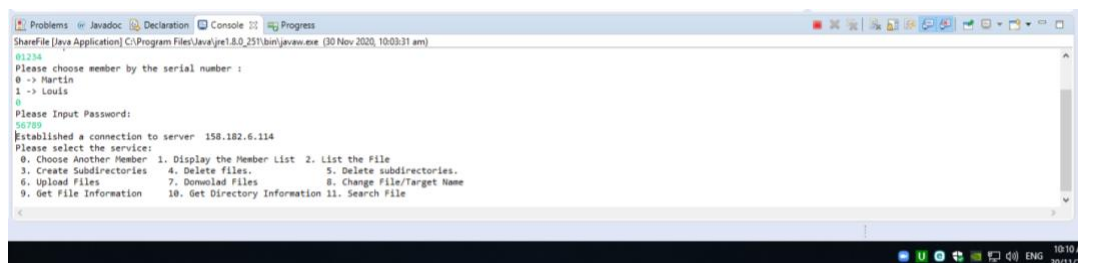
```
Problems Javadoc Declaration Console Progress
ShareFile [Java Application] C:\Program Files\Java\jre1.8.0_251\bin\javaw.exe (30 Nov 2020, 10:03:31 am)
Local IP Address: 158.182.6.113
Please Input Username:
|
```

- 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



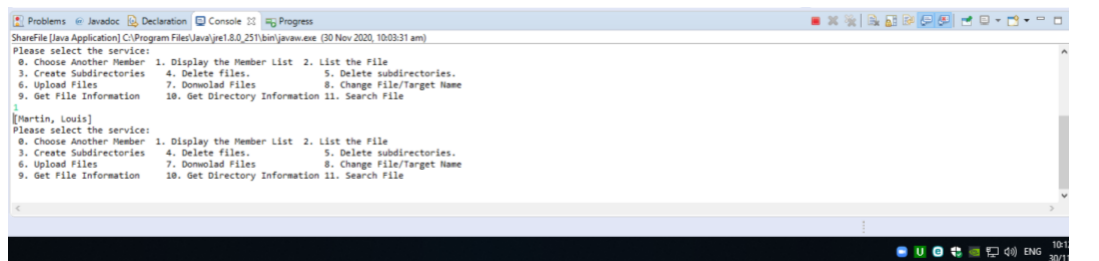
```
Problems Javadoc Declaration Console Progress
ShareFile [Java Application] C:\Program Files\Java\jre1.8.0_251\bin\javaw.exe (30 Nov 2020, 10:03:31 am)
Local IP Address: 158.182.6.113
Please Input Username:
Phoenix
Please Input Password:
@1234
Please choose member by the serial number :
0 -> Martin
1 -> Louis
```

- 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



```
Problems Javadoc Declaration Console Progress
ShareFile [Java Application] C:\Program Files\Java\jre1.8.0_251\bin\javaw.exe (30 Nov 2020, 10:03:31 am)
@1234
Please choose member by the serial number :
0 -> Martin
1 -> Louis
1
Please Input Password:
@1234
Established a connection to server 158.182.6.114
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. Download Files 8. Change File/Target Name
9. Get File Information 10. Get Directory Information 11. Search File
```

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



```
Problems Javadoc Declaration Console Progress
ShareFile [Java Application] C:\Program Files\Java\jre1.8.0_251\bin\javaw.exe (30 Nov 2020, 10:03:31 am)
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. Download Files 8. Change File/Target Name
9. Get File Information 10. Get Directory Information 11. Search File
1
[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. Download Files 8. Change File/Target Name
9. Get File Information 10. Get Directory Information 11. Search File
```

- 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. Download 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\ue251180\desktop
Cat.mp4 2817358 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\java.exe (30 Nov 2020, 10:02:51 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. Download 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\ue251180\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. Download 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.

```
ShareFile (Java Application) C:\Program Files\Java\jre1.8.0_251\bin\java.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. Download 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\ue251180\desktop\VMKCat.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. Download Files 8. Change File/Target Name
9. Get File Information 10. Get Directory Information 11. Search File
```

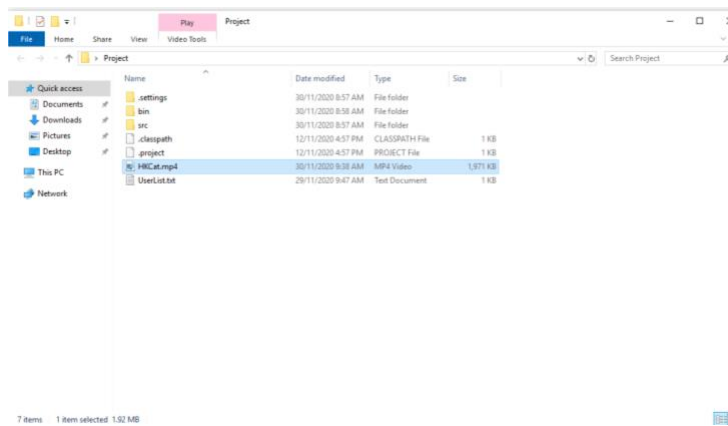
- k. Select service “5”, input the subdirectory address you want to delete.

```
ShareFile (Java Application) C:\Program Files\Java\jre1.8.0_251\bin\java.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. Download 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\ue251180\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. Download Files 8. Change File/Target Name
9. Get File Information 10. Get Directory Information 11. Search File
```

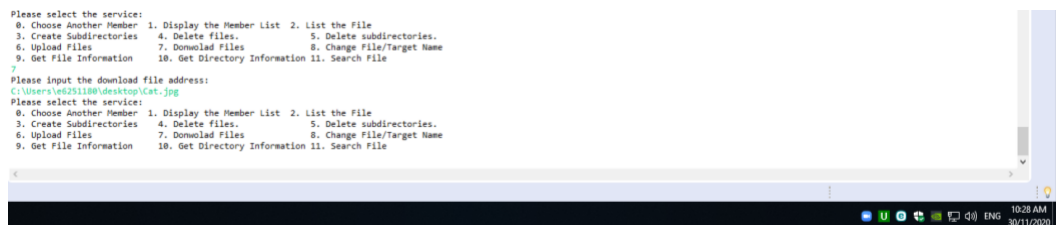
- l. Select service “6”, input the file address you want to upload

```
ShareFile (Java Application) C:\Program Files\Java\jre1.8.0_251\bin\java.exe (30 Nov 2020, 10:04:01 am)
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. Download 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\ue251180\desktop\VMKCat.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. Download Files 8. Change File/Target Name
9. Get File Information 10. Get Directory Information 11. Search File
```

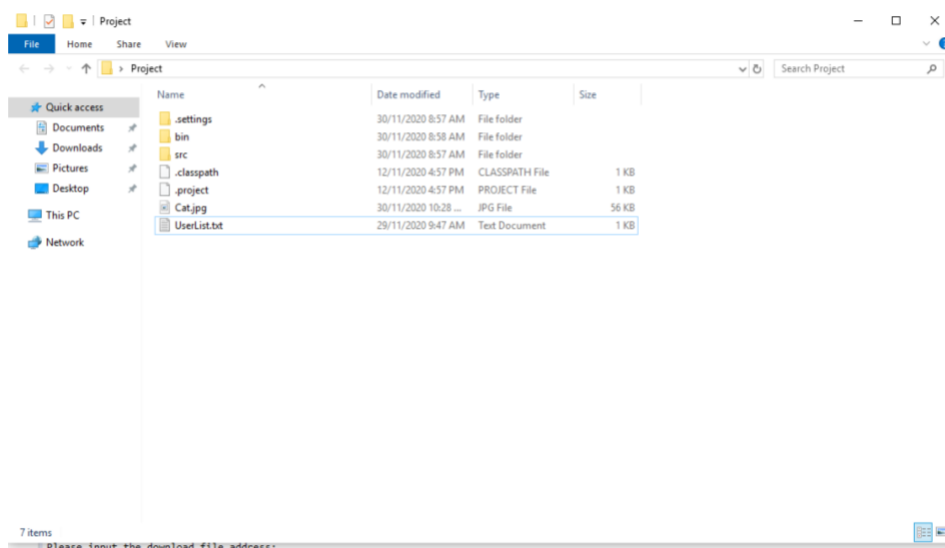
Pay attention that, the uploaded file is saved in the Project Folder default.



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

```
Problems | Javadoc | Declaration | Console | Progress
ShareFile [Java Application] C:\Program Files\Java\jre1.8.0_251\bin\javaw.exe (30 Nov 2020, 10:03:31 am)
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. Download Files 8. Change File/Target Name
9. Get File Information 10. Get Directory Information 11. Search File
Please input the original file/directory address:
C:\Users\es251188\Desktop\land.jpg
Please input the changed file/directory address:
C:\Users\es251188\Desktop\land.jpg
Target is renamed
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. Download Files 8. Change File/Target Name
9. Get File Information 10. Get Directory Information 11. Search File
Please input file address:
C:\Users\es251188\Desktop\land.jpg
File size: 57286 bytes Last Modified Time: Mon Nov 30 10:28:06 CST 2020
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. Download Files 8. Change File/Target Name
9. Get File Information 10. Get Directory Information 11. Search File
```

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

```
Problems | Javadoc | Declaration | Console | Progress
ShareFile [Java Application] C:\Program Files\Java\jre1.8.0_251\bin\javaw.exe (30 Nov 2020, 10:03:31 am)
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. Download Files 8. Change File/Target Name
9. Get File Information 10. Get Directory Information 11. Search File
Please input file address:
C:\Users\es251188\Desktop\land.jpg
File size: 57286 bytes Last Modified Time: Mon Nov 30 10:28:06 CST 2020
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. Download Files 8. Change File/Target Name
9. Get File Information 10. Get Directory Information 11. Search File
```

- 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

```
Problems | Javadoc | Declaration | Console | Progress
ShareFile [Java Application] C:\Program Files\Java\jre1.8.0_251\bin\javaw.exe (30 Nov 2020, 10:03:31 am)
File size: 57286 bytes Last Modified Time: Mon Nov 30 10:28:06 CST 2020
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. Download Files 8. Change File/Target Name
9. Get File Information 10. Get Directory Information 11. Search File
Please input directory address:
C:\Users\es251188\Desktop
Directory size: 623340 bytes Last Modified Time: Mon Nov 30 10:31:42 CST 2020
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. Download Files 8. Change File/Target Name
9. Get File Information 10. Get Directory Information 11. Search File
```

- 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

```
Problems | Javadoc | Declaration | Console | Progress
ShareFile [Java Application] C:\Program Files\Java\jre1.8.0_251\bin\javaw.exe (30 Nov 2020, 10:03:31 am)
Please input filename:
land.jpg
Please input searched range (if empty, will search under C:\Users) :
C:\Users\es251188
File:C:\Users\es251188\Desktop\land.jpg
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. Download Files 8. Change File/Target Name
9. Get File Information 10. Get Directory Information 11. Search File
```

- r. Select service “0”, you can choose another member to connect

```
.....
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. Download Files 8. Change File/Target Name
9. Get File Information 10. Get Directory Information 11. Search File

Please choose member by the serial number :
0 -> Martin
1 -> Louis
```

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

```
Problems Javadoc Declaration Console Progress
ShareFile [Java Application] C:\Program Files\Java\jre1.8.0_251\bin\javaw.exe (30 Nov 2020, 9:22:34 am)
56789
Please choose member by the serial number :
0 -> Phoenix
1 -> Louis
0
Please Input Password:
01234
Established a connection to server 158.182.6.113
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.
```

Louis's computer

```
Problems Javadoc Declaration Console Progress
ShareFile [Java Application] C:\Program Files\Java\jre1.8.0_251\bin\javaw.exe (30 Nov 2020, 9:22:23 am)
Please Input Username:
Louis
Please Input Password:
13579
Please choose member by the serial number :
0 -> Phoenix
1 -> Martin
0
Please Input Password:
01234
Established a connection to server 158.182.6.113
```