

# Verification Result

## 1. Test case 1: Register peers

### Test Steps:

Run peer1 program at: src\P2Pfile\Peer1\peer1.java

```
Peer1 [Java Application] C:\Program Files\Java\jre7\bin\javaw.exe (Sep 27, 2014, 3:43:41 PM)
```

```
Peer1Server Start  
Connection accepted from remote server!  
Need to register this Peer!
```

```
Enter the main menu, Please select  
Register  
Exit
```

We need register it first, type "Register":

```
Peer1 [Java Application] C:\Program Files\Java\jre7\bin\javaw.exe (Sep 27, 2014, 3:43:41 PM)
```

```
Peer1Server Start  
Connection accepted from remote server!  
Need to register this Peer!
```

```
Enter the main menu, Please select  
Register  
Exit
```

```
Register  
Register a Peer!  
Connection accepted from remote server!  
Register Peer Successfully!
```

```
Connection accepted from remote server!
```

```
Enter the main menu, Please select  
AddFile  
SearchFile  
DownloadFile  
DeleteFile  
UpdateFile  
Exit
```

Then we need add files to index serve, type "AddFile":

Peer1 [Java Application] C:\Program Files\Java\jre7\bin\javaw.exe (Sep 27, 2014, 3:43:41 PM)

```
Enter the main menu, Please select
AddFile
SearchFile
DownloadFile
DeleteFile
UpdateFile
Exit
AddFile
Adding a File
Connection accepted from remote server!
File Adding to Peer
File Created on the server successfully
[p1t1.txt, p1t10.txt, p1t2.txt, p1t3.txt, p1t4.txt, p1t5.txt, p1t6.txt, p1t7.txt, p1t8.txt, p1t9.txt, test1.jpg, test1.txt, test2.jpg]
Connection accepted from remote server!

Enter the main menu, Please select
AddFile
SearchFile
DownloadFile
DeleteFile
UpdateFile
Exit
```

Run peer2 program at: src\P2Pfile\Peer2\peer2.java. Register and add files same as peer1:

Peer2 [Java Application] C:\Program Files\Java\jre7\bin\javaw.exe (Sep 27, 2014, 3:49:50 PM)

```
Peer2Server Start
Connection accepted from remote server!
Need to register this Peer!

Enter the main menu, Please select
Register
Exit
Register
Register a Peer!
Connection accepted from remote server!
Register Peer Successfully!

Connection accepted from remote server!
```

```
Enter the main menu, Please select
AddFile
SearchFile
DownloadFile
DeleteFile
UpdateFile
Exit
AddFile
Adding a File
Connection accepted from remote server!
File Adding to Peer
File Created on the server successfully
[p1t1.txt, p1t10.txt, p1t2.txt, p1t3.txt, p1t4.txt, p1t5.txt, p1t6.txt, p1t7.txt, p1t8.txt, p1t9.txt, test1.jpg, test1.txt, test2.jpg]
Connection accepted from remote server!
```

Run peer3 program at: src\P2Pfile\Peer3\peer3.java. Register and add files same as peer1:

Peer3 [Java Application] C:\Program Files\Java\jre7\bin\javaw.exe (Sep 27, 2014, 3:50:58 PM)

```
Peer3Server Start
Connection accepted from remote server!
Need to register this Peer!

Enter the main menu, Please select
Register
Exit
Register
Register a Peer!
Connection accepted from remote server!
Register Peer Successfully!

Connection accepted from remote server!
```

```
Enter the main menu, Please select
AddFile
SearchFile
DownloadFile
DeleteFile
UpdateFile
Exit
AddFile
Adding a File
Connection accepted from remote server!
File Adding to Peer
File Created on the server successfully
[p3t1.txt, p3t10.txt, p3t2.txt, p3t3.txt, p3t4.txt, p3t5.txt, p3t6.txt, p3t7.txt, p3t8.txt, p3t9.txt, test1.txt, test2.jpg, test3.jpg]
Connection accepted from remote server!
```

### **Test Results:**

All peers with more than ten files can register correctly.

## **2. Test case 2: Search a file in multiple peers:**

### **Test Steps:**

In main menu, type "SearchFile", then type "test1.txt" (The file is in peer1, 2 and 3):

```
Enter the main menu, Please select
AddFile
SearchFile
DownloadFile
DeleteFile
UpdateFile
Exit
SearchFile
Search File, Please Input a name:
test1.txt
Connection accepted from remote server!
File Found, Peer Found:
Peer name: peer1
Location: /src/P2Pfile/Peer1/filefolder
IP: 127.0.0.1
Listening port peer1
peer1 contains:
p1t1.txt
p1t10.txt
p1t2.txt
p1t3.txt
p1t4.txt
p1t5.txt
p1t6.txt
p1t7.txt
p1t8.txt
p1t9.txt
test1.jpg
test1.txt
test2.jpg
Peer name: peer2
Location: /src/P2Pfile/Peer2/filefolder
IP: 127.0.0.1
Listening port peer2
peer2 contains:
p2t1.txt
p2t10.txt
p2t2.txt
p2t3.txt
p2t4.txt
p2t5.txt
p2t6.txt
p2t7.txt
p2t8.txt
p2t9.txt
test1.txt
test2.jpg
test3.jpg
Peer name: peer3
Location: /src/P2Pfile/Peer3/filefolder
IP: 127.0.0.1
Listening port peer3
peer3 contains:
p3t1.txt
p3t10.txt
p3t2.txt

p3t3.txt
p3t4.txt
p3t5.txt
p3t6.txt
p3t7.txt
p3t8.txt
p3t9.txt
test1.txt
test2.jpg
test3.jpg
Peers contain this file are:
peer1
peer2
peer3
Connection accepted from remote server!
```

**Test Result:**

The program can find the file test1.txt in peer1, 2 and 3 correctly.

### 3. Test case 3: Download a file

**Precondition:**

All peers are registered and all files are added. Run server, peer1 and peer3.

Before download a file, we must search the file first.

Now we are in peer3 program, type "SearchFile", then type "test1.jpg" (The file is in peer1, we need download it to peer3):

```
Enter the main menu, Please select
AddFile
SearchFile
DownloadFile
DeleteFile
UpdateFile
Exit
SearchFile
Search File, Please Input a name:
test1.jpg
Connection accepted from remote server!
File Found, Peer Found:
Peer name: peer1
Location: /src/P2Pfile/Peer1/filefolder
IP: 127.0.0.1
Listening port peer1
peer1 contains:
plt1.txt
plt10.txt
plt2.txt
plt3.txt
plt4.txt
plt5.txt
plt6.txt
plt7.txt
plt8.txt
plt9.txt
test1.jpg
test1.txt
test2.jpg
Peers contain this file are:
peer1
Connection accepted from remote server!
```

**Test Steps:**

Then type "DownloadFile", after prompt "Which node you want to reach?", type "peer1" since the file is in peer1:

```

Enter the main menu, Please select
AddFile
SearchFile
DownloadFile
DeleteFile
UpdateFile
Exit
DownloadFile
Which node you want to reach?
peer1
You are choosing node: peer1
Donwloading File
Connection accepted from remote server!
Save to C:\Users\fan zhang\Desktop\CS550PA1.6\src\P2Pfile\Peer3\filefolder\test1.jpg
Connection accepted from remote server!

```

```

Enter the main menu, Please select
AddFile
SearchFile
DownloadFile
DeleteFile
UpdateFile
Exit

```

#### Test Result:

The file downloaded to peer3 successfully.

## 4. Test case 4: Download a file which is already in the peer

#### Precondition:

Peer1 has file test1.txt with 1kb size. Peer 3 has file test1.txt with 0kb size. Start server, peer1 and peer3.

Now we are in peer3 program, type "SearchFile", then type "test1.txt" (The file is in peer 3 already):

```

Enter the main menu, Please select
AddFile
SearchFile
DownloadFile
DeleteFile
UpdateFile
Exit
SearchFile
Search File, Please Input a name:
test1.txt
Connection accepted from remote server!
File Found, Peer Found:
Peer name: peer1
Location: /src/P2Pfile/Peer1/filefolder
IP: 127.0.0.1
Listening port peer1
peer1 contains:
p1t1.txt
p1t10.txt
p1t2.txt
p1t3.txt
p1t4.txt
p1t5.txt
p1t6.txt
p1t7.txt
p1t8.txt
p1t9.txt
test1.jpg
test1.txt
test2.jpg
Peer name: peer2
Location: /src/P2Pfile/Peer2/filefolder
IP: 127.0.0.1
Listening port peer2
peer2 contains:
p2t1.txt
p2t10.txt
p2t2.txt
p2t3.txt
p2t4.txt
p2t5.txt
p2t6.txt
p2t7.txt
p2t8.txt
p2t9.txt
test1.txt
test2.jpg
test3.jpg

```

```

Peer name: peer3
Location: /src/P2Pfile/Peer3/filefolder
IP: 127.0.0.1
Listening port peer3
peer3 contains:
p3t1.txt
p3t10.txt
p3t2.txt
p3t3.txt
p3t4.txt
p3t5.txt
p3t6.txt
p3t7.txt
p3t8.txt
p3t9.txt
test1.txt
test2.jpg
test3.jpg
Peers contain this file are:
peer1
peer2
peer3
Connection accepted from remote server!

```

#### Test Steps:

Then type "DownloadFile", after prompt "Which node you want to reach?", type "peer1"

```

Enter the main menu, Please select
AddFile
SearchFile
DownloadFile
DeleteFile
UpdateFile
Exit
DownloadFile
Which node you want to reach?
peer1
You are choosing node: peer1
Downloading File
Connection accepted from remote server!
Save to C:\Users\fan zhang\Desktop\CS550PA1.6\src\P2Pfile\Peer3\filefolder\test1.txt
Connection accepted from remote server!

```

#### Test Results:

The file did not download. Test1.txt in peer3 remains 0kb.

## 5. Test case 5: Update files:

#### Precondition:

Delete all the files in peer1.

#### Test Steps:

Type "UpdateFile" in main menu:

```

Enter the main menu, Please select
AddFile
SearchFile
DownloadFile
DeleteFile
UpdateFile
Exit
UpdateFile
Update a File
Connection accepted from remote server!
New File Adding to Peer
File test1.jpg Updating on the Server Successfully
Connection accepted from remote server!

```

#### Test Result:

Check src\P2Pfile\IndexServer\filefolder\peer1.d. There is no file name in the list. Update successfully.

## 6. Delete a file:

#### Test Step:

Type "DeleteFile" in main menu:

```

Enter the main menu, Please select
AddFile
SearchFile
DownloadFile
DeleteFile
UpdateFile
Exit
DeleteFile
Delete a File
Connection accepted from remote server!
Connection accepted from remote server!
Please input the file name you want to delete

```

Type "test1.jpg" after the prompt:

```

Enter the main menu, Please select
AddFile
SearchFile
DownloadFile
DeleteFile
UpdateFile
Exit
DeleteFile
Delete a File
Connection accepted from remote server!
Connection accepted from remote server!
Please input the file name you want to delete
test1.jpg
File Delete Successfully!
Delete Complete!
Connection accepted from remote server!

```

#### Test Result:

Check src\P2Pfile\IndexServer\filefolder\peer1.d. Test1.jpg is no longer in the list. Check src\P2Pfile\Peer1\filefolder there is not test1.jpg. Delete successfully.