

PROJECT TITLE :

Napster-style Peer-To-Peer File Sharing System

Output File

Name : Karthik Krishnamurthy

CWID : A20344464

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Project Title: Napster-Style Peer-to-Peer File Sharing System

OUTPUT FILE:

Step-by-Step Execution:

On Machine-A, CentralIndxServer is Run.

The CIS starts listening for incoming connections from the Peers.

Screenshot when CentralIndxServer is Running:

```
Raghavans-MacBook-Pro:P2P_File_Sharing_System Raghavan$ java CentralIndxServer
||=====||
||                PEER-TO-PEER FILE SHARING SYSTEM                ||
||                =====||
||=====||
<CENTRAL INDEX SERVER IS UP AND RUNNING....>
=====
```

On Machine-B, Peer_1 is Run.

Peer_1 is allowed to Register its files with the CentralIndxServer, Search the CIS for required files or Download from other peers.

Screenshot when Peer_1 is Run:

```
Karthik-Ks-MacBook-Pro:Peer_1 karthikk$ java PeerServer
IndexServer IP is:10.0.0.13
||=====||
||              PEER-TO-PEER FILE SHARING SYSTEM              ||
||              =====||
||                      MENU:||
||=====||
=====
Enter The Option :
=====
1. Registering the File
2. Searching On CentralIndxServer
3. Downloading From Peer Server
4. Exit
█
```

Registration Process:

Peer_1:

Peer_1 is Registering the File “testfile.txt” with the CentralIdxServer.

Screenshot when Peer_1 Registers the file on the CentralIdxServer:

```
Karthik-Ks-MacBook-Pro:Peer_1 karthikk$ java PeerServer
IndexServer IP is:10.0.0.13
||=====||
||                PEER-TO-PEER FILE SHARING SYSTEM                ||
||                =====                                           ||
||                                MENU:                                ||
||=====||
=====

Enter The Option :
=====
1. Registering the File
2. Searching On CentralIdxServer
3. Downloading From Peer Server
4. Exit

1
Enter the String in Format: 4Digit id and File Names separated by Space
3001 testfile.txt

Connected to Register on CentralIdxServer on port 2001

Registered Successfully!!

=====
```

CentralIdxServer:

Register Request received on the CentralIdxServer from Peer_1 and the CIS registers the filename and the ID in the Index Catalogue.

Screenshot for Register Request from Peer_1 on the IndexServer:

```
Raghavans-MacBook-Pro:P2P_File_Sharing_System Raghavan$ java CentralIdxServer
||=====||
||                PEER-TO-PEER FILE SHARING SYSTEM                ||
||                =====||
||=====||

<CENTRAL INDEX SERVER IS UP AND RUNNING....>
=====

Connection Received From 10.0.0.18 For Registration
3001 testfile.txt
<====Registered====>
```

Search Process:

Peer 2:

On Machine-C, Peer_2 is Run.

Peer_2 is allowed to Register its files with the CentralIndxServer, Search the CIS for required files or Download from other peers.

Peer_2 issues a Search Request for the file “testfile.txt” which was registered by Peer_1

The Search result returned will be the Peer ID of the peer and the IP Address of the Peer which contains the file.

Screenshot for the Search Result returned from the CentralIndxServer for the file “testfile.txt”:

```
ajith@ajith-VirtualBox:~/Desktop/P2P_File_Sharing_System/Peer_2$ java PeerServer
IndexServer IP is:10.0.0.13
||=====||
||                PEER-TO-PEER FILE SHARING SYSTEM                ||
||=====||
||                        MENU:                        ||
||=====||
Enter The Option :
=====
1. Registering the File
2. Searching On CentralIndxServer
3. Downloading From Peer Server
4. Exit
2
Enter the File Name to Search
testfile.txt

Connected to Search on CentralIndxServer on port 2002

File:'testfile.txt' found at peers:3001(10.0.0.18)

=====
```

CentralIndxServer:

Search Request received on the CentralIndxServer from Peer_2 and the CIS Searches the Filename in the Index Catalogue.

Screenshot for Search Request from Peer_2 on the IndexServer:

```
Raghavans-MacBook-Pro:CentralIndxServer Raghavan$ java CentralIndxServer
||=====||
||                PEER-TO-PEER FILE SHARING SYSTEM                ||
||=====||
<CENTRAL INDEX SERVER IS UP AND RUNNING....>
=====
Connection Received From 10.0.0.18 For Registration
3001 testfile.txt
<===Registered===>
Connection Received From 10.0.0.20 For Search
3001(10.0.0.18)
<===Searched===>
```

Download Process:

Peer 3:

On Machine-D, Peer_3 is Run.

Peer_3 is allowed to Register its files with the CentralIdxServer, Search the CIS for required files or Download from other peers.

Peer_3 issues a Search Request for the file “testfile.txt” which was registered by Peer_1

The Search result returned will be the Peer ID of the peer and the IP Address of the Peer which contains the file.

Then It issues a Download Request for the file “testfile.txt” which was registered by Peer_1

Screenshot for the Search Result returned from the CentralIdxServer for the file
“testfile.txt”

```
karthik@karthik-Studio-1558:~/Desktop/P2P_File_Sharing_System/Peer_3$ java PeerServer
IndexServer IP is:10.0.0.13
||=====||
||                PEER-TO-PEER FILE SHARING SYSTEM                ||
||=====||
||                        MENU:                        ||
||=====||
Enter The Option :
=====
1. Registering the File
2. Searching On CentralIdxServer
3. Downloading From Peer Server
4. Exit
2
Enter the File Name to Search
testfile.txt

Connected to Search on CentralIdxServer on port 2002
File:'testfile.txt' found at peers:3001(10.0.0.18)

=====
```

:

Screenshot: Download Request from Peer_3 to Peer_1 for downloading the File “testfile.txt”

```
=====
Enter The Option :
=====
1. Registering the File
2. Searching On CentralIndxServer
3. Downloading From Peer Server
4. Exit
Connection Received From 10.0.0.14 For Download
█
```

Screenshot: Peer_3 Downloads the File “testfile.txt” from Peer_1

```
=====
Enter The Option :
=====
1. Registering the File
2. Searching On CentralIndxServer
3. Downloading From Peer Server
4. Exit
3
Enter Peer id:
3001
Enter peer IP Address to download file:
10.0.0.18
Enter the File Name to be Downloaded:
testfile.txt
Connected to peerid : 3001
testfile.txt: Downloaded
=====
```