**Source Code and Program list**

1).ServerInterface.java------> here three functions are declared i.e.

(i)Register(String peer\_id,String File\_Name,String Port\_No,String Src\_Dir)

(ii) Search(String File\_Name,int TTL,int ID)

(iii) DeRegister(String peer\_id,String File\_Name,String Port\_No,String Src\_Dir)

(IV) SearchLinear(String File\_Name, int TTL,int ID)

2). ServerImpl.java-------> Here I have implemented all the functions declared in ServerInterface.java

3). Server.java(Super Peer)-----------> This is the one which contains the main function, and we just need to run this to start the server.

4). FileDetails.java------> I have created this just to get new data type ,when we create an object of this class then it contains all the file details like PeerID,fileName,portNo,sourceDir.

5). Client.java(Peersor leaf nodes)------> This is the one which has the main function and since there is only one function for client or Peer(i.e. downloading) I have implemented everything in this file itself.

The function implemented here is “dwnldFrmPeer(String pp, ArrayList<FileDetails> ar)”.

6). ClientInterface.java and ClientImpl.java-----> I have created these two for future purposes so that I can move the dwnldFrmPeer(String pp, ArrayList<FileDetails> ar) function to ClientImpl.java.

7). Concurrent.java--------> This is the independent file which you can run after running Server.java and then register PEER5 and register file 100.txt with the Super Peer 5. This file concurrently runs 4 PEERS which request the search for the file 100.txt and then all three peers download files from the same PEER5.