# Deliverables

For Peer to Peer File sharing system, we have integrated 8 java files into a jar file "**GnutellaP2P.jar**", external jar named "javax.ws.rs-api-2.0.jar" for implementing MultiValuedHashMap Data structure and we have created 3 Windows Executable batch files.

1. **SetupConfig.java**

This java file contains the main method for reading the hardcoded property file and use it initialize super peers, leaf nodes and their topology.

2. **SuperPeer.java**

This java file contains the main method for setting up the Super Server via property file and registering its service in the RMI naming registry and binds its address.

3. **SuperPeerInterface.java**

This java file extends Remote class and declares Super Peer's Remote methods (RegistryFiles, Search, Query, and queryHit)

4. **SuperPeerImpl.java**

This java file implements the "SuperPeerInterface" interface and defines the remote methods (RegistryFiles, Search, Query, and queryHit)

5. **LeafNode.java**

This java file contains the main method for setting up the leaf node via property file and registering its service in the RMI naming registry and binds its address.

6. **LeafNodeInterface.java**

This java file extends Remote class and declares Leaf node's Remote method (fileDownload & queryHit)

7. **LeafNodeImpl.java**

**7.1.** This java file implements the "LeafNodeInterface" interface and defines the remote method in it (fileDownload & queryHit).

7.2. The Leaf node gets the service from RMI and obtains target address (Super Peer's address).

8. **MultiClient.java**

This java file contains the main method for setting up multiple clients with the help of Multi-Threading and registering each of its service in the RMI naming registry and binds its address.

9. **AvgRespFileSearch.java**

This java file gets the service from RMI and obtains target address (Indexing server's address) and call Server's Remote methods concurrently via Multi-threading. This java file calculates Average Search Response Time observed by each client by hitting 200 sequential requests.

Windows Batch files:

1. **run_peer.bat**
   a. Setting the java path

```
set path=%PATH%;C:\Program Files\Java\jdk1.6.0_14\bin
```

   b. Executing the Peer class in the jar file by passing supporting jars as classpath

```
java -cp GnutellaP2P.jar;javax.ws.rs-api-2.0.jar com.gfiletransfer.LeafNode
```

2. **run_server.bat**
   a. Setting the java path

```
set path=%PATH%;C:\Program Files\Java\jdk1.6.0_14\bin
```

   b. Executing the Peer class in the jar file by passing supporting jars as classpath

```
java -cp GnutellaP2P.jar;javax.ws.rs-api-2.0.jar com.gfiletransfer.SuperPeer
```

3. **run_test.bat**
    a. Setting the java path

```
set path=%PATH%;C:\Program Files\Java\jdk1.6.0_14\bin
```

    b. Executing the Peer class in the jar file by passing supporting jars as classpath

```
java -cp GnutellaP2P.jar;javax.ws.rs-api-2.0.jar com.gfiletransfer.MultiClient
pause
```