

Group 25:

Michael Norris

Priyam Patel

Gurpreet Pannu

Phase 3 Write-up

Github repository link: <https://github.com/priyam10/RUBTClient>

Overview:

Tools package - contains all the given files including Bencoder2, BencodingException, Toolkit, TorrentInfo.

default package - contains all the java files we worked on.

Class descriptions:

RUBTClient.java

It contains the main method. The program takes two arguments: the torrent file and the output file. RUBTClient connects to the tracker, gets the RUBT peers and stores them into a arraylist of peers, and starts a thread for each peer. RUBTClient contains its own client thread which regularly announces its status to the tracker as well as takes messages from and to the peers.

Peer.java

This class contains the run method for a peer thread which is called for each RUBT peer. In the run method, we perform handshake rituals take incoming messages from the peer and process them.

Message.java

This class contains the message types and methods which create the properly formatted message and perform tasks for dealing with the messages received from peers.

Gui.java

This class is called by RUBTClient.java in the beginning to load up the GUI that is shown. It includes the status of the file being downloaded, name, and size. It also contains a table of peers' IP and port along with download/upload rates associated with them. There is an option to save at the bottom and to pause the execution.

Request.java

This class is used for sending different client status updates to the tracker.

Response.java

This class is used to represent the different response types that the tracker sends to the client.

MyTools.java

Contains utility methods that are used by other classes such as to get a TorrentInfo object from the torrent file, perform bit operations on the data from/to peers, and converting downloaded file into byte array.

Feedback:

We were fairly successful in this 3rd phase as we got times where we got the file to download with the audio. Uploading also seems to work and we have a GUI set up for a fresh new look to our project.