

BIRLA INSTITUTE OF TECHNOLOGY & SCIENCE, PILANI (RAJASTHAN)

I SEMESTER 2019-2020

ASSIGNMENT-1

Advanced Operating System (CS G623)

Start Date: 10-Oct-2019

Deadline: 20-Oct-2019

Note -

- Maximum of two students per group.
 - Upload code in <http://nalanda.bits-pilani.ac.in> Name your file idno1_idno2_assignment1.tar. (source code should be commented.)
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Problem Statement

This assignment will get you familiarize with sockets/RPCs/RMIs, processes, threads. In this assignment, you will be developing peer-to-peer(p2p) file system like DC++. Let's talk about the features that you need to implement,

Features

- There will be a shared folder.
- Other peers can request a file which is in shared folder.
- Peer A will **request** "file list" from peer B. peer B will **reply** to A's request with a **list of all files** inside shared folder.
- Then, peer A will choose a name of the file that it want to download, and it will send name to B.
- Peer B will **send file** to A.
- File can be of any format. [text, audio, video, zip, .etc.]
- There will be a **list of friends with ip addresses**. So you just have to enter the name of the friend to request a file. You should be able to add more friends(name and ip address) dynamically.
- Your program should support **multiple peer connections** to download files and request files from other peer.
- No GUIs are required. Simple command line interfaces are fine.
- Your program should handle large file downloads. (~10MB)

Evaluation

You will bring your laptop(both teammates). There will be shared folder in both laptop with at least one text, audio, video and zip file. Your program will be running on other machine that will request for files.
