CMP 2204 Network Project

A simple command line application for data sharing over local network.

Requirements

You need to update the broadcast IP in Chunk Announcer (default is 25.255.255.255).

> *You can calculate your broadcast ip using the link below*
> [*https://www.youtube.com/watch?v=1pZNjRZLNqI&ab_channel=SystemEngineer*](https://www.youtube.com/watch?v=1pZNjRZLNqI&ab_channel=SystemEngineer)

Usage and General Info

- **Chunk Announcer**

Chunk Announcer splits the file you desire to share into five chunks and broadcasts chunk names using UDP until terminated by user.

> **Enter name of file to be hosted (with extension):** *example: file.png*

- **Content Discovery**

Upon execution automatically starts listening for UDP broadcasts on port 5001 and notes chunks along with their IP to *km_files.txt* in JSON format.

- **Chunk Uploader**

Chunk uploader listens on TCP port 8000 for a request and transfers requested file. Also saves records of uploads in *km_ulog.txt* and stays active until terminated by user.

- **Chunk Downloader**

Chunk downloader asks user for desired file then checks files.txt for hosts that have chunks of the file. Tries to download each chunk and if the host is unavailable tries another until successful. If unsuccessful displays error stating the file cannot be downloaded. Saves records of successful chunk downloads into *km_dlog.txt*.

> **Enter name of desired file (File must be in the same folder as the program)**
> *example: file.png*

Limitations

- If file host user deletes a chunk file it will not be recreated nor will the downloader be aware of it (the download will simply fail stating the deleted chunk could not be downloaded from any known sources)

- To host more than one file from one host chunk announcer must be run once for each file.

Contributors

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