Verification

Test results:

- **Registering files to each peer:**
  - As soon as peer starts, server check for local files in share folder, and index them into that peer itself.
  - And it is tested. This automatically index all files in the share folder.

- **Search and downloading file:**
  - File requested by user is searched with neighboring peers and there neighboring and so on, depending on topology used. And then, the peer who has that file returns it to the requesting peer. And ask user whether he want to retrieve that file or not.
  - Searching file is tested on multiple peers (10 peers) concurrently with files with different sizes on both linear and star topology. And everything works properly.
  - It gives list of peers where the file is located, otherwise gives message – "File Not Found!!"
  - After confirming and selecting peer from which file is used to download, download starts, and within few milliseconds, file get downloaded into download folder of that peer.

- **Search files by increasing number of operations:**
  - Files are searched by increasing number of operations, 200, 500, 1000, 2000 and 5000 from single requesting peer.
  - Time to execute is decreasing as number of operations are increasing.

- **Search files by increasing number of requesting clients:**
  - Files are searched by increasing number of number of clients from 1- 10 with constant number of operations 200.
  - Time to execute is decreasing as number of operations are increasing.

Things going wrong in the code:

- While searching file on the indexing server, you must enter full name of that file, code does not give partial searches or intelligent search which will predict file name.