Uploading a file:
- Client uses curl command to invoke a POST API call and inputs a JSON, including the filepath of the file to be uploaded
- Adds file to list (txt file) of all uploaded files
- Generates a unique file identifier based on the line number the file is on within the uploaded files list
- Renames the original file in the case of a filename collision (if hello.txt already exists in the uploaded files list, uploading it again would rename the newly uploaded file to hello_1.txt)
- Returns fileID prior to processing zipping in the background
- File is zipped using the Lempel-Ziv-Markov-Chain (LZMA) Lossless Compression Algorithm, as part of the ZipFile Python module
- example command: curl -H "Content-Type: application/json" -d '{"file name": **"hw.pdf"**}' http://127.0.0.1:5000
  - This command uploads "hw.pdf" (adds it to the uploaded file list, checks for name collisions, generates a unique fileID for it, and zips it, storing it in a folder called "zipped/")

Retrieving a file:
- Client uses curl command to invoke a GET API call and inputs a fileID in order to retrieve the filepath of the corresponding file
- If there is no file associated with the fileID / if the file has not yet been zipped, an error message is returned
- example command (returns the zip file with fileID=1): curl http://127.0.0.1:5000/**get/1**

Listing files:
- Client uses curl command (ending "/files") to invoke a GET API call that returns the list of all uploaded files
- The list is updated after every upload
- The list contains each file's name, file size, and date uploaded
- command: curl http://127.0.0.1:5000/**files**

Tests:
- **File Size function**
  - Checks to see that the file size for the zipped file is lower than that of the original file (assuming the file is greater than 118.0 bytes, which is the size of the ZipFile module wrapper)
  - In the case that the original file size is less than 118.0 bytes, the zipped file will be of greater size than the original
- **Zip function**
  - Checks to see that the proper output, including filename and fileID, is returned
- **Index (ind) function**
  - Checks to see that the proper index of the start of the file's extension is returned

- For instance, "testing.jpeg" would return an index value of 7, since the file's extension begins at that index
- Similarly, "shree.phadke.png" would return an index value of 12
- **Duplicate Name function**
  - Checks to see that filename collisions have been handled
    - For instance, "hw.pdf" would be renamed to "hw_2.pdf" in the event that both hw.pdf and hw_1.pdf were already in the uploaded files list
    - Similarly, "lecture.pdf" would be renamed to "lecture_1.pdf" in the case that lecture.pdf was already in the list
- **File ID Generation function**
  - Checks to see that fileID corresponds with the name and line number the file is on