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### **Execution steps:**

1. At the beginning, run "server\_b.py" to have Port 55555 open to communicate with incoming connection.

Command: **"python server\_b.py"**

2. Then run `server\_a.py` and type a port number so Therefore, PORTID is performed differently than 55556. Internally connect the socket to 5000 Get the data from `directory\_b`.

Command: **"python server\_a.py"**

3. Next we will execute file client.py all the data from server\_a and server\_b will be displayed in sorted form.

Command: **"python client.p"**

4. In next step we use commands to lock the file and unlock the file.

Lock the file Command: **`python client.py -lock -{file\_index}`**

Unlock the file Command: **python client.py -unlock -{file\_index}`**

The execution is done

### **Reference Links:**

WATCHDOG: <https://xiaoouwang.medium.com/create-a-watchdog-in-python-to-look-for-filesystem-changes-aaabefd14de4>

<https://xiaoouwang.medium.com/create-a-watchdog-in-python-to-look-for-filesystem-changes-aaabefd14de4>

<https://thepythoncorner.com/posts/2019-01-13-how-to-create-a-watchdog-in-python-to-look-for-filesystem-changes/>

<https://docs.oracle.com/javase/tutorial/networking/sockets/clientServer.html#later>

<https://realpython.com/python-sockets/>

**List of libraries:**

For multiple threading <threading> std-lib

For request listening from client to socket <socket> std-lib

Acess to files and directories<os> std-lib

To process <json> std-lib

list of files from a directory <gt\_list> function from <myutils> custom-lib

observer to capture file-system events <Observer> from

<watchdog.observers>

event-handler <FileSystemEventHandler> from <watchdog.events>

Deleting a file <remove> function from <os> std-lib

Coping a file <copyfile> function from <shutil> std-lib