Coordinator-based Distributed Locking

```
🔞 🖨 📵 dozer@dozer-VirtualBox: ~/os/proj2/bonus
                                                                       🔞 🖯 📵 dozer@dozer-VirtualBox: ~/os/proj2/bonus
Listener unlocking service queue
                                                                      Iteration = 997
Coor Listening
                                                                      Sent release to server - closing socket
Worker locked service queue
                                                                      Iteration = 996
Worker got request 6 237657118, unlocking service queue
                                                                      Sent request to server
Sending grant to client
Recieved release from client
Listener locked service queue
                                                                      Sent request to server
Received grant from server
                                                                      sum is 4994
Listener unlocking service queue
                                                                      Received grant from server
Coor Listening
                                                                      sum is 4995
Worker loop started
Worker locked service queue
                                                                      Sent release to server - closing socket
                                                                      Sent release to server - closing socket
Worker got request 4 356485673, unlocking service queue
                                                                      Iteration = 998
Sending grant to client
                                                                      Iteration = 997
Recieved release from client
                                                                      Sent request to server
Worker loop started
                                                                      Sent request to server
Worker locked service queue
                                                                      Received grant from server
Worker got request 6 237657118, unlocking service queue
                                                                      sum is 4996
Sending grant to client
Recieved release from client
                                                                      Sent release to server - closing socket
                                                                      Iteration = 998
Worker loop started
                                                                      Sent request to server
Listener locked service queue
                                                                      Received grant from server
Listener unlocking service queue
                                                                      sum is 4997
Coor Listening
                                                                      Sent release to server - closing socket
Listener locked service queue
                                                                      Iteration = 999
Listener unlocking service queue
                                                                      Received grant from server
Coor Listening
                                                                      sum is 4998
Worker locked service queue
                                                                      Sent release to server - closing socket
Worker got request 4 356485673, unlocking service queue
Sending grant to client
                                                                      Iteration = 999
                                                                      Sent request to server
Recieved release from client
                                                                      Sent request to server
Worker loop started
Worker locked service queue
                                                                      Received grant from server
                                                                      sum is 4999
Worker got request 6 237657118, unlocking service queue
                                                                      Sent release to server - closing socket
Sending grant to client
                                                                      Received grant from server
Recieved release from client
                                                                      sum is 5000
Worker loop started
                                                                      Sent release to server - closing socket
dozer@dozer-VirtualBox:~/os/proj2/bonus$
```

All incoming client requests are put in a service queue by the server. The clients on the right terminal are concurrently sending requests to the server. The server on the left terminal responds with sequential access grants. The server waits until the granted client replies with a release, after which the server pops another request from the service queue and grants another client access to the shared file.