1. In order to verify the program, there are several integration tests written in the integration_test.py file also copied into test.txt and all the tests PASS.
2. The program works because one of the tests and *'test_a_file_gets_downloaded_on_different_cluster'* does successfully download the file on another cluster. It asserts before downloading the file was present on the matching super peer and that not present on the requesting super peer and that following the download there is no difference in the two files. Other scenarios were also tested such as time to live being 0'd out. This was tested by having a linear topology of 10 servers and then setting the TTL to 8 . Next, having the 1st server request for a file that only exists on the 10th server, it was not possible to request for this file because the TTL had expired and hence, file would never be forwarded back.

3. Following, is the schematic for 4 SuperPeers and it clearly shows that if 1 was requesting from the 4th SuperPeer a file that only the 4th SuperPeer it must have a MAX_TTL set to more than 3.
    a. 1 <-> 2 <-> 3 <-> 4
4. The other tests were for files that don't exist in the system and for this case, the TTL' simply expired or the message was already seen on a super peer and so future query messages were not sent out.