

Assignment 2: Scenario Testing

Course ISE 431: Distributed Information Systems

Semester 1 5770

Due to problems with the Java installation in the Kinneret, I have put together a testing scenario set for students to attempt at home. The scenarios must be performed on at least 3 computers which can communicate over a single network. Ideally, five or more should be used. For home documentation, each step must be documented with a screen shot, before and after the command to show success.

I will call the computers A, B, and C for clarity during the course of the testing. Ideally, there should be computers D and E to help with the testing too.

Please send your screen shots accompanied by a report explaining what is happening in each screen shot. Give explanations as necessary. Please send your report in **one file** in either MS Word or PDF format containing the following information:

1. The names of the students in the group
2. All relevant screen shots and explanations
3. An explanation of what is needed for me to install and run the code myself on multiple computers.
4. A screen shot of the interface and an explanation of its options.

Other requirements:

- Please send a full copy of all source code if you have not already submitted it.
- Please send the report `ise431@gmail` **before March 1, 2010 at 11:59:59pm** so that I can submit your grades before the beginning of the semester.

1 Scenario 1: Setup

Perform the following steps:

1. Start a new Chord ring with computer A.
2. Computer A adds at least 10 distinct files to its file store.
3. Computer B uses its web browser to send two requests to A to deliver files which A has in its local store.
4. Computer C joins A's Chord network. It should receive at least two files from A. If it does not, add more files to the Chord network until C receives at least two.
5. Computer B uses its web browser to send two requests to A to deliver files which A has in its local store.
6. Computer B uses its web browser to send two requests to A to deliver files which C has in its local store.

7. Computer B uses its web browser to send two requests to C to deliver files which C has in its local store.
8. Computer B uses its web browser to send two requests to C to deliver files which A has in its local store.
9. Computer B joins A's Chord network. It should receive at least two files from A or C. If it does not, add more files to the Chord network until B receives at least two.
10. Computer A uses its web browser to send two requests to B to deliver files which B has in its local store.
11. Computer A uses its web browser to send two requests to B to deliver files which A or C have in its local store.

You may close the network down at this point or leave it up for the next scenario.

2 Scenario 2: Joining/Leaving

Perform the following steps:

1. Start a new Chord ring with computer A.
2. Computer A adds at least 10 distinct files to its file store.
3. Computer B joins A's Chord network. B should receive at least two files each. If it does not, add more files to the Chord network until B receives at least two files.
4. Computer C uses its web browser to send two requests to A to deliver files which B has in its local store.
5. Computer B leaves the Chord network. The files should return to A.
6. Computer C uses its web browser to send two requests to A to deliver files which B **had in its local store** (Those files should be at A now).
7. Computer C joins A's Chord network. It should receive at least two files from A. If it does not, add more files to the Chord network until C receives at least two.
8. Computer B uses its web browser to send two requests to A to deliver files which C has in its local store.
9. Computer B uses its web browser to send two requests to C to deliver files which A has in its local store.
10. Computer B rejoins A's Chord network. It should receive at least two files from A or C. If it does not, add more files to the Chord network until B receives at least two. Did B receive the same files it had before? Why?

You may close the network down at this point or leave it up for the next scenario.

3 Scenario 3: Addition

Perform the following steps:

1. Start a new Chord ring with computers A, B, C.
2. Computer A adds at least 5 distinct files to the network. At least one of the files should be sent to a computer other than A. If not, add more files at A until a file is sent to either B or C.
3. Computer B adds at least 5 distinct files to the network. At least one of the files should be sent to a computer other than B. If not, add more files at B until a file is sent to either A or C.
4. Computer C adds at least 5 distinct files to the network. At least one of the files should be sent to a computer other than C. If not, add more files at C until a file is sent to either A or B.