



CS 550: Advanced Operating Systems

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P2P File Sharing System: Verification Document

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Contents

1	See the list of local files	3
2	Change files and check that the Index is updated	3
3	Download a file from a peer	3
4	Search for a non-existent file	4
5	Download a file present on multiple peers	4

Test case 1 See the list of local files

For this test case, you will need to set up **one peer** and **one index server**. Please refer to the manual.

1. Make sure that the **share** folder contains at least one file.
2. Start the peer.
3. Type **1** to see the list of local files.
4. Verify that the list of files corresponds to the files present in the **share** folder.

Test case 2 Change files and check that the Index is updated

For this test case, you will need to set up **one peer** and **one index server**. Please refer to the manual.

1. Start the peer.
2. Type **1** to see the list of local files.
3. Verify that the list of files corresponds to the files present in the **share** folder.
4. Add or delete a file in the **share** folder.
5. Verify that a registry request corresponding to this change was made by looking in the index server logs.

Test case 3 Download a file from a peer

For this test case, you will need to set up **two peers** and **one index server**. Please refer to the manual.

1. Make sure that the **share** folder of the peers contain different files.
2. Start the first peer.
3. Start the second peer.
4. On the second peer, type **2** to download a file.
5. On the second peer, type the name of a file only present on the first peer.
6. Verify that the index server returns the right peer information for this file.
7. Type **1** to download this file.
8. Verify that the download was successful and that the downloaded file is now present in the **share** folder.

Test case 4 Search for a non-existent file

For this test case, you will need to set up **multiple peers** and **one index server**. Please refer to the manual.

1. Make sure that the **share** folder of the peers contain different files.
2. Start one of the peers.
3. Type 2 to download a file.
4. Type the name of a file that doesn't exist on any peer.
5. Verify that the index server doesn't return any peer information for this file.

Test case 5 Download a file present on multiple peers

For this test case, you will need to set up **three peers** and **one index server**. Please refer to the manual.

1. Make sure that the **share** folder of the peers contain different files and that two of the peers have one file in common but not the third peer.
2. Start all the peers.
3. On the third peer, type 2 to download a file.
4. On the third peer, type the name of a file present on the two other peers.
5. Verify that the index server returns one file with two peers. The peers must be presented in random order.
6. Type 1 to download this file.
7. Verify that the download was successful and that the downloaded file is now present in the **share** folder.