

# Output

## PUSH based Approach – Modifying ‘file1’ in Peer 1

Peer 1:

```
➔ P2PGnutella git:(master) ✗ ant run ant -Darg0=1 -Darg1=8001 run
Buildfile: /Users/Kunal/Documents/workspace/P2PGnutella/build.xml

run:
[java] Peer 1 acting as server on 127.0.0.1:8001
[java]
[java]
[java] *****
[java] **** Maintaining File Consistency in your Gnutella Style P2P System ****
[java] *****
[java] 1. Search and Download File
[java] 2. Modify File
[java] 0. Exit
[java] Select your choice:
[java] ENTRY_CREATE: file4
[java] Incoming Request to peer 1: From - 2 Search locally and send request to neighbours for msg id- 1490052704584-4-1
[java] Local Search: File Found in the current peer
[java] Incoming Request to peer 1: From - 2 Search locally and send request to neighbours for msg id- 1490052792330-2-1
[java] Local Search: File Found in the current peer
[java]
2
[java] Enter file name to search:
file1
[java]
[java]
[java] *****
[java] **** Maintaining File Consistency in your Gnutella Style P2P System ****
[java] *****
[java] 1. Search and Download File
[java] 2. Modify File
[java] 0. Exit
[java] Select your choice:
[java] ENTRY_MODIFY: file1
[java] Invalidating cached copy of file1 from peer 1
[java]
```

Peer 2:

```
→ P2PGnutella git:(master) ✗ ant run ant -Darg0=2 -Darg1=8002 run
Buildfile: /Users/Kunal/Documents/workspace/P2PGnutella/build.xml

run:
[java] Peer 2 acting as server on 127.0.0.1:8002
[java]
[java]
[java] *****
[java] **** Maintaining File Consistency in your Gnutella Style P2P System ****
[java] *****
[java] 1. Search and Download File
[java] 2. Modify File
[java] 0. Exit
[java] Select your choice:
[java] Incoming Request to peer 2: From - 3 Search locally and send request to neighbours for msg id- 1490052704584-4-1
[java] Local Search: File Found in the current peer
[java]
1
[java] Enter file name to search:
file1
[java]
[java]
[java]
[java]
[java] 'file1 found in the network at below peers
[java] 1. Peer1 running on 127.0.0.1:8001
[java] 2. Peer3 running on 127.0.0.1:8003
[java]
[java] Do you wish to download the file? (Y/N):
Y
[java] Enter from which peer you want to download the file:
1
[java]
[java]
[java] *****
[java] **** Maintaining File Consistency in your Gnutella Style P2P System ****
[java] *****
[java] 1. Search and Download File
[java] 2. Modify File
[java] 0. Exit
[java] Select your choice:
[java] Invalidating cached copy of file1 from peer 2
[java]
```

Peer 3:

```
→ P2PGnutella git:(master) ✗ ant run ant -Darg0=3 -Darg1=8003 run
Buildfile: /Users/Kunal/Documents/workspace/P2PGnutella/build.xml

run:
[java] Peer 3 acting as server on 127.0.0.1:8003
[java]
[java]
[java] *****
[java] **** Maintaining File Consistency in your Gnutella Style P2P System ****
[java] *****
[java] 1. Search and Download File
[java] 2. Modify File
[java] 0. Exit
[java] Select your choice:
[java] Incoming Request to peer 3: From - 4 Search locally and send request to neighbours for msg id- 1490052704584-4-1
[java] Local Search: File Found in the current peer
[java]
[java] Incoming Request to peer 3: From - 2 Search locally and send request to neighbours for msg id- 1490052792330-2-1
[java] Local Search: File Found in the current peer
[java]
[java] Invalidating cached copy of file1 from peer 3
[java]
```

Peer 4:

```
➔ P2PGnutella git:(master) ✗ ant run ant -Darg0=4 -Darg1=8004 run
Buildfile: /Users/Kunal/Documents/workspace/P2PGnutella/build.xml

run:
[java] Peer 4 acting as server on 127.0.0.1:8004
[java]
[java]
[java] *****
[java] **** Maintaining File Consistency in your Gnutella Style P2P System ****
[java] *****
[java] 1. Search and Download File
[java] 2. Modify File
[java] 0. Exit
[java] Select your choice:
[java] Incoming Request to peer 4: From - 3 Search locally and send request to neighbours for msg id- 1490052792330-2-1
[java] Local Search: File Found in the current peer
[java]
[java] Invalidating cached copy of file1 from peer 4
[java]
```

Peer 5:

```
➔ P2PGnutella git:(master) ✗ ant run ant -Darg0=5 -Darg1=8005 run
Buildfile: /Users/Kunal/Documents/workspace/P2PGnutella/build.xml

run:
[java] Peer 5 acting as server on 127.0.0.1:8005
[java]
[java]
[java] *****
[java] **** Maintaining File Consistency in your Gnutella Style P2P System ****
[java] *****
[java] 1. Search and Download File
[java] 2. Modify File
[java] 0. Exit
[java] Select your choice:
[java] Incoming Request to peer 5: From - 4 Search locally and send request to neighbours for msg id- 1490052704584-4-1
[java] Local Search: File Found in the current peer
[java]
[java] Incoming Request to peer 5: From - 4 Search locally and send request to neighbours for msg id- 1490052792330-2-1
[java] Local Search: File Found in the current peer
[java]
[java] Invalidating cached copy of file1 from peer 5
[java]
```

Peer 6:

```
➔ P2PGnutella git:(master) ✗ ant run ant -Darg0=6 -Darg1=8006 run
Buildfile: /Users/Kunal/Documents/workspace/P2PGnutella/build.xml

run:
[java] Peer 6 acting as server on 127.0.0.1:8006
[java]
[java]
[java] *****
[java] **** Maintaining File Consistency in your Gnutella Style P2P System ****
[java] *****
[java] 1. Search and Download File
[java] 2. Modify File
[java] 0. Exit
[java] Select your choice:
[java] Incoming Request to peer 6: From - 5 Search locally and send request to neighbours for msg id- 1490052704584-4-1
[java] Local Search: File Found in the current peer
[java]
[java] Invalidating cached copy of file1 from peer 6
[java]
```

Peer 7:

```
Last login: Mon Mar 20 18:27:01 on ttys005
➔ P2PGnutella git:(master) ✕ ant run ant -Darg0=7 -Darg1=8007 run

Buildfile: /Users/Kunal/Documents/workspace/P2PGnutella/build.xml

run:
[java] Peer 7 acting as server on 127.0.0.1:8007
[java]
[java]
[java] *****
[java] **** Maintaining File Consistency in your Gnutella Style P2P System ****
[java] *****
[java] 1. Search and Download File
[java] 2. Modify File
[java] 0. Exit
[java] Select your choice:
[java] Incoming Request to peer 7: From - 6 Search locally and send request to neighbours for msg id- 1490052704584-4-1
[java] Local Search: File Found in the current peer
[java]
[java] Invalidating cached copy of file1 from peer 7
[java]
```

Peer 8:

```
Last login: Mon Mar 20 18:29:44 on ttys006
➔ P2PGnutella git:(master) ✕ ant run ant -Darg0=8 -Darg1=8008 run

Buildfile: /Users/Kunal/Documents/workspace/P2PGnutella/build.xml

run:
[java] Peer 8 acting as server on 127.0.0.1:8008
[java]
[java]
[java] *****
[java] **** Maintaining File Consistency in your Gnutella Style P2P System ****
[java] *****
[java] 1. Search and Download File
[java] 2. Modify File
[java] 0. Exit
[java] Select your choice:
[java] Invalidating cached copy of file1 from peer 8
[java]
```

Peer 9:

```
Last login: Mon Mar 20 18:29:54 on ttys007
→ P2PGnutella git:(master) ✗ ant run ant -Darg0=9 -Darg1=8009 run

Buildfile: /Users/Kunal/Documents/workspace/P2PGnutella/build.xml

run:
[java] Peer 9 acting as server on 127.0.0.1:8009
[java]
[java]
[java] *****
[java] **** Maintaining File Consistency in your Gnutella Style P2P System ****
[java] *****
[java] 1. Search and Download File
[java] 2. Modify File
[java] 0. Exit
[java] Select your choice:
[java] Invalidating cached copy of file1 from peer 9
[java]
```

Peer 10:

```
Last login: Mon Mar 20 18:30:01 on ttys008
→ P2PGnutella git:(master) ✗ ant run ant -Darg0=10 -Darg1=8010 run

Buildfile: /Users/Kunal/Documents/workspace/P2PGnutella/build.xml

run:
[java] Peer 10 acting as server on 127.0.0.1:8010
[java]
[java]
[java] *****
[java] **** Maintaining File Consistency in your Gnutella Style P2P System ****
[java] *****
[java] 1. Search and Download File
[java] 2. Modify File
[java] 0. Exit
[java] Select your choice:
[java] Invalidating cached copy of file1 from peer 10
[java]
```

## PUSH based Approach – Modifying ‘file1’

Peer 1:

```
➔ P2PGnutella git:(master) ✗ ant run ant -Darg0=1 -Darg1=8001 run
Buildfile: /Users/Kunal/Documents/workspace/P2PGnutella/build.xml

run:
[java] Peer 1 acting as server on 127.0.0.1:8001
[java]
[java]
[java] *****
[java] **** Maintaining File Consistency in your Gnutella Style P2P System ****
[java] *****
[java] 1. Search and Download File
[java] 2. Modify File
[java] 3. AutoUpdate
[java] 0. Exit
[java] Select your choice:
[java] Incoming Request to peer 1: From - 2 Search locally and send request to neighbours for msg id- 1490053961692-4-1
[java]
```

Peer 2:

```
➔ P2PGnutella git:(master) ✗ ant run ant -Darg0=2 -Darg1=8002 run
Buildfile: /Users/Kunal/Documents/workspace/P2PGnutella/build.xml

run:
[java] Peer 2 acting as server on 127.0.0.1:8002
[java]
[java]
[java] *****
[java] **** Maintaining File Consistency in your Gnutella Style P2P System ****
[java] *****
[java] 1. Search and Download File
[java] 2. Modify File
[java] 3. AutoUpdate
[java] 0. Exit
[java] Select your choice:
[java] Incoming Request to peer 2: From - 1 Search locally and send request to neighbours for msg id- 1490053846346-1-1
[java] Local Search: File Found in the current peer
[java]
[java] Incoming Request to peer 2: From - 1 Search locally and send request to neighbours for msg id- 1490053883894-1-1
[java]
[java] Incoming Request to peer 2: From - 3 Search locally and send request to neighbours for msg id- 1490053961692-4-1
[java]
```

Peer 3:

```
➔ P2PGnutella git:(master) ✗ ant run ant -Darg0=3 -Darg1=8003 run
Buildfile: /Users/Kunal/Documents/workspace/P2PGnutella/build.xml

run:
[java] Peer 3 acting as server on 127.0.0.1:8003
[java]
[java]
[java] *****
[java] **** Maintaining File Consistency in your Gnutella Style P2P System ****
[java] *****
[java] 1. Search and Download File
[java] 2. Modify File
[java] 3. AutoUpdate
[java] 0. Exit
[java] Select your choice:
[java] Incoming Request to peer 3: From - 2 Search locally and send request to neighbours for msg id- 1490053846346-1-1
[java] Local Search: File Found in the current peer
[java]
[java] Incoming Request to peer 3: From - 2 Search locally and send request to neighbours for msg id- 1490053883894-1-1
[java]
[java] Incoming Request to peer 3: From - 4 Search locally and send request to neighbours for msg id- 1490053961692-4-1
[java]
```

Peer 4:

```
[→ P2PGnutella git:(master) ✕ ant run ant -Darg0=4 -Darg1=8004 run

Buildfile: /Users/Kunal/Documents/workspace/P2PGnutella/build.xml

run:
    [java] Peer 4 acting as server on 127.0.0.1:8004
    [java]
    [java]
    [java] *****
    [java] **** Maintaining File Consistency in your Gnutella Style P2P System ****
    [java] *****
    [java] 1. Search and Download File
    [java] 2. Modify File
    [java] 3. AutoUpdate
    [java] 0. Exit
    [java] Select your choice:
1
    [java] Enter file name to search:
file6
    [java]
    [java]
    [java]
    [java]
    [java] 'file6 found in the network at below peers
    [java] 1. Peer5 running on 127.0.0.1:8005
    [java]
    [java] Do you wish to download the file? (Y/N):
Y
    [java] Enter from which peer you want to download the file:
1
    [java] Index: 1, Size: 1
    [java]
    [java]
    [java] *****
    [java] **** Maintaining File Consistency in your Gnutella Style P2P System ****
    [java] *****
    [java] 1. Search and Download File
    [java] 2. Modify File
    [java] 3. AutoUpdate
    [java] 0. Exit
    [java] Select your choice:
```

## Peer 5:

```
→ P2PGnutella git:(master) ✗ ant run ant -Darg0=5 -Darg1=8005 run
Buildfile: /Users/Kunal/Documents/workspace/P2PGnutella/build.xml

run:
[java] Peer 5 acting as server on 127.0.0.1:8005
[java]
[java]
[java] *****
[java] **** Maintaining File Consistency in your Gnutella Style P2P System ****
[java] *****
[java] 1. Search and Download File
[java] 2. Modify File
[java] 3. AutoUpdate
[java] 0. Exit
[java] Select your choice:
2
[java] Enter file name to search:
file6
[java]
[java]
[java] *****
[java] **** Maintaining File Consistency in your Gnutella Style P2P System ****
[java] *****
[java] 1. Search and Download File
[java] 2. Modify File
[java] 3. AutoUpdate
[java] 0. Exit
[java] Select your choice:
[java] ENTRY_MODIFY: file6
[java] Incoming Request to peer 5: From - 4 Search locally and send request to neighbours for msg id- 1490053961692-4-1
[java] Local Search: File Found in the current peer
[java]
```

## Peer 6:

```
→ P2PGnutella git:(master) ✗ ant run ant -Darg0=6 -Darg1=8006 run
Buildfile: /Users/Kunal/Documents/workspace/P2PGnutella/build.xml

run:
[java] Peer 6 acting as server on 127.0.0.1:8006
[java]
[java]
[java] *****
[java] **** Maintaining File Consistency in your Gnutella Style P2P System ****
[java] *****
[java] 1. Search and Download File
[java] 2. Modify File
[java] 3. AutoUpdate
[java] 0. Exit
[java] Select your choice:
[java] Incoming Request to peer 6: From - 5 Search locally and send request to neighbours for msg id- 1490053961692-4-1
[java]
```

## Peer 7:

```
→ P2PGnutella git:(master) ✗ ant run ant -Darg0=7 -Darg1=8007 run
Buildfile: /Users/Kunal/Documents/workspace/P2PGnutella/build.xml

run:
[java] Peer 7 acting as server on 127.0.0.1:8007
[java]
[java]
[java] *****
[java] **** Maintaining File Consistency in your Gnutella Style P2P System ****
[java] *****
[java] 1. Search and Download File
[java] 2. Modify File
[java] 3. AutoUpdate
[java] 0. Exit
[java] Select your choice:
[java] Incoming Request to peer 7: From - 6 Search locally and send request to neighbours for msg id- 1490053961692-4-1
[java]
```



Peer 8:

```
➔ P2PGnutella git:(master) ✗ ant run ant -Darg0=8 -Darg1=8008 run
Buildfile: /Users/Kunal/Documents/workspace/P2PGnutella/build.xml

run:
[java] Peer 8 acting as server on 127.0.0.1:8008
[java]
[java]
[java] *****
[java] **** Maintaining File Consistency in your Gnutella Style P2P System ****
[java] *****
[java] 1. Search and Download File
[java] 2. Modify File
[java] 3. AutoUpdate
[java] 0. Exit
[java] Select your choice:
```

Peer 9:

```
➔ P2PGnutella git:(master) ✗ ant run ant -Darg0=9 -Darg1=8009 run
Buildfile: /Users/Kunal/Documents/workspace/P2PGnutella/build.xml

run:
[java] Peer 9 acting as server on 127.0.0.1:8009
[java]
[java]
[java] *****
[java] **** Maintaining File Consistency in your Gnutella Style P2P System ****
[java] *****
[java] 1. Search and Download File
[java] 2. Modify File
[java] 3. AutoUpdate
[java] 0. Exit
[java] Select your choice:
```

Peer 10:

```
➔ P2PGnutella git:(master) ✗ ant run ant -Darg0=10 -Darg1=8010 run
Buildfile: /Users/Kunal/Documents/workspace/P2PGnutella/build.xml

run:
[java] Peer 10 acting as server on 127.0.0.1:8010
[java]
[java]
[java] *****
[java] **** Maintaining File Consistency in your Gnutella Style P2P System ****
[java] *****
[java] 1. Search and Download File
[java] 2. Modify File
[java] 3. AutoUpdate
[java] 0. Exit
[java] Select your choice:
```

## Run Test Cases:

```
~ ant ..e/P2PGnutella ..e/P2PGnutella ..e/P2PGnutella ..e/P2PGnutella
[java] Incoming Request to peer 3: From - 1 Search locally and send request to neighbours for msg id- 1488159446749-8-16
[java] Local Search: File not found in the current peer
[java] Incoming Request to peer 2: From - 1 Search locally and send request to neighbours for msg id- 1488159446749-8-16
[java] Local Search: File Found in the current peer
[java] Incoming Request to peer 4: From - 1 Search locally and send request to neighbours for msg id- 1488159446749-8-16
[java] Local Search: File Found in the current peer
[java]
[java] HitQuery: Send following result back to 1
[java]
[java]
[java] HitQuery: Send following result back to 1
[java] --Found at Peer4 on localhost:8004
[java] HitQuery: Send following result back to 1
[java] --Found at Peer2 on localhost:8002
[java] Incoming Request to peer 5: From - 1 Search locally and send request to neighbours for msg id- 1488159446749-8-16
[java] Local Search: File not found in the current peer
[java] Outgoing Request from peer 1: Sending request to 7 8007
[java]
[java] HitQuery: Send following result back to 1
[java] Outgoing Request from peer 1: Sending request to 9 8009
[java] Outgoing Request from peer 1: Sending request to 10 8010
[java] Incoming Request to peer 7: From - 1 Search locally and send request to neighbours for msg id- 1488159446749-8-16
[java] Local Search: File not found in the current peer
[java] Incoming Request to peer 6: From - 1 Search locally and send request to neighbours for msg id- 1488159446749-8-16
[java] Local Search: File Found in the current peer
[java]
[java]
[java] HitQuery: Send following result back to 1
[java] HitQuery: Send following result back to 1
[java] --Found at Peer6 on localhost:8006
[java] Incoming Request to peer 9: From - 1 Search locally and send request to neighbours for msg id- 1488159446749-8-16
[java] Local Search: File Found in the current peer
[java]
[java] Incoming Request to peer 10: From - 1 Search locally and send request to neighbours for msg id- 1488159446749-8-16
[java] Local Search: File Found in the current peer
[java] HitQuery: Send following result back to 1
[java] --Found at Peer9 on localhost:8009
[java]
[java] HitQuery: Send following result back to 1
[java] --Found at Peer10 on localhost:8010
[java] HitQuery: Send following result back to 8
[java] --Found at Peer1 on localhost:8001
[java] --Found at Peer2 on localhost:8002
[java] --Found at Peer4 on localhost:8004
[java] --Found at Peer6 on localhost:8006
[java] --Found at Peer9 on localhost:8009
[java] --Found at Peer10 on localhost:8010
[java]
[java]
[java] Total time (1): 23.970000000000002
```