FILE RETRIEVAL BENCHMARK

Dataset1: 1 Client (client_1)

```
[rpatil5@roub:~/csc-435-pa4-Rohan-Patil-1/app-java$ java -cp target/app-java-1.0-SNAPSHOT.jar csc435.app.FileRetrievalBenchmark 127.0.0.1 3019 1 /mnt/shared/dataset1_client_server/1_client/client_1
Picked up JAVA_TOOL_OPTIONS: -Xms2g -Xmx8g
Connection Successful!
Worker indexed dataset '/mnt/shared/dataset1_client_server/1_client/client_1' in 22.89 seconds, 134247377 bytes read
Benchmark completed in 22.97 seconds
Search completed in 0.0255 seconds
Search results (top 10 out of 271):
* Client 1/folder5/folderB/Document10706.txt:134
* Client 1/folder6/Document10807.txt:57
* Client 1/folder4/Document10674.txt:45
* Client 1/folder4/Document10633.txt:41
* Client 1/folder7/folderB/Document10985.txt:41
* Client 1/folder5/folderB/Document10705.txt:40
* Client 1/folder4/Document10681.txt:38
* Client 1/folder5/folderB/Document10700.txt:35
* Client 1/folder7/folderC/Document10998.txt:33
* Client 1/folder2/folderA/Document10350.txt:32
Search completed in 0.03 seconds
Top 10 results:
1. /mnt/shared/dataset1_client_server/1_client/client_1/folder5/folderB/Document10706.txt (frequency: 134)
2. /mnt/shared/dataset1_client_server/1_client/client_1/folder6/Document10807.txt (frequency: 57)
3. /mnt/shared/dataset1_client_server/1_client/client_1/folder4/Document10674.txt (frequency: 45)
4. /mnt/shared/dataset1_client_server/1_client/client_1/folder4/Document10633.txt (frequency: 41)
5. /mnt/shared/dataset1_client_server/1_client/client_1/folder7/folderB/Document10985.txt (frequency: 41)
6. /mnt/shared/dataset1_client_server/1_client/client_1/folder5/folderB/Document10705.txt (frequency: 40)
7. /mnt/shared/dataset1_client_server/1_client/client_1/folder4/Document10681.txt (frequency: 38)
8. /mnt/shared/dataset1_client_server/1_client/client_1/folder5/folderB/Document10700.txt (frequency: 35)
9. /mnt/shared/dataset1_client_server/1_client/client_1/folder7/folderC/Document10998.txt (frequency: 33)
10. /mnt/shared/dataset1_client_server/1_client/client_1/folder2/folderA/Document10350.txt (frequency: 32)
```

Dataset1: 2 Clients (client_1 and client_2)

```
[rpatil5@roub:~/csc-435-pa4-Rohan-Patil-1/app-java$ java -cp target/app-java-1.0-SNAPSHOT.jar csc435.app.FileRetrievalBenchmark 127.0.0.1 3019 2 /mnt/shared/dataset1_client_server/2_clients/client_1 /mnt/s
hared/dataset1_client_server/2_clients/client_2
Picked up JAVA_TOOL_OPTIONS: -Xms2g -Xmx8g
Connection Successful!
Connection Successful!
Worker indexed dataset '/mnt/shared/dataset1_client_server/2_clients/client_2' in 9.11 seconds, 65864138 bytes read
Worker indexed dataset '/mnt/shared/dataset1_client_server/2_clients/client_1' in 9.40 seconds, 68383239 bytes read
Benchmark completed in 9.44 seconds
Search completed in 0.0190 seconds
Search results (top 10 out of 145):
* /mnt/shared/dataset1_client_server/2_clients/client_1/folder4/Document10674.txt:45
* /mnt/shared/dataset1_client_server/2_clients/client_1/folder4/Document10633.txt:41
* /mnt/shared/dataset1_client_server/2_clients/client_1/folder4/Document10681.txt:38
* /mnt/shared/dataset1_client_server/2_clients/client_1/folder2/folderA/Document10350.txt:32
* /mnt/shared/dataset1_client_server/2_clients/client_1/folder3/Document1039.txt:31
* /mnt/shared/dataset1_client_server/2_clients/client_1/folder2/folderA/Document10351.txt:29
* /mnt/shared/dataset1_client_server/2_clients/client_1/folder1/Document10116.txt:27
* /mnt/shared/dataset1_client_server/2_clients/client_1/folder1/Document10060.txt:26
* /mnt/shared/dataset1_client_server/2_clients/client_1/folder2/folderA/Document10352.txt:25
* /mnt/shared/dataset1_client_server/2_clients/client_1/folder1/Document10058.txt:25
Search completed in 0.02 seconds
Top 10 results:
1. /mnt/shared/dataset1_client_server/2_clients/client_1/folder4/Document10674.txt (frequency: 45)
2. /mnt/shared/dataset1_client_server/2_clients/client_1/folder4/Document10633.txt (frequency: 41)
3. /mnt/shared/dataset1_client_server/2_clients/client_1/folder4/Document10681.txt (frequency: 38)
4. /mnt/shared/dataset1_client_server/2_clients/client_1/folder2/folderA/Document10350.txt (frequency: 32)
5. /mnt/shared/dataset1_client_server/2_clients/client_1/folder3/Document1039.txt (frequency: 31)
6. /mnt/shared/dataset1_client_server/2_clients/client_1/folder2/folderA/Document10351.txt (frequency: 29)
7. /mnt/shared/dataset1_client_server/2_clients/client_1/folder1/Document10116.txt (frequency: 27)
8. /mnt/shared/dataset1_client_server/2_clients/client_1/folder1/Document10060.txt (frequency: 26)
9. /mnt/shared/dataset1_client_server/2_clients/client_1/folder2/folderA/Document10352.txt (frequency: 25)
10. /mnt/shared/dataset1_client_server/2_clients/client_1/folder1/Document10058.txt (frequency: 25)
```

Dataset1: 4 Clients (client_1, client_2, client_3 and client_4)

```
[rpatil5@roub:~/csc-435-pa4-Rohan-Patil-1/app-java$ java -cp target/app-java-1.0-SNAPSHOT.jar csc435.app.FileRetrievalBenchmark 127.0.0.1 3019 4 /mnt/shared/dataset1_client_server/4_clients/client_1 /mnt/s]
hared/dataset1_client_server/4_clients/client_2 /mnt/shared/dataset1_client_server/4_clients/client_3 /mnt/shared/dataset1_client_server/4_clients/client_4
Picked up JAVA_TOOL_OPTIONS: -Xms2g -Xmx8g
Connection Successful!
Connection Successful!
Connection Successful!
Connection Successful!
Worker indexed dataset '/mnt/shared/dataset1_client_server/4_clients/client_3' in 7.29 seconds, 34087738 bytes read
Worker indexed dataset '/mnt/shared/dataset1_client_server/4_clients/client_4' in 7.65 seconds, 31776400 bytes read
Worker indexed dataset '/mnt/shared/dataset1_client_server/4_clients/client_1' in 8.03 seconds, 33745514 bytes read
Worker indexed dataset '/mnt/shared/dataset1_client_server/4_clients/client_2' in 8.55 seconds, 34637725 bytes read
Benchmark completed in 8.61 seconds
Search completed in 0.0137 seconds
Search results (top 10 out of 73):
* /mnt/shared/dataset1_client_server/4_clients/client_1/folder2/folderA/Document10350.txt:32
* /mnt/shared/dataset1_client_server/4_clients/client_1/folder2/folderA/Document10351.txt:29
* /mnt/shared/dataset1_client_server/4_clients/client_1/folder1/Document10116.txt:27
* /mnt/shared/dataset1_client_server/4_clients/client_1/folder1/Document10060.txt:26
* /mnt/shared/dataset1_client_server/4_clients/client_1/folder1/Document10058.txt:25
* /mnt/shared/dataset1_client_server/4_clients/client_1/folder2/folderA/Document10352.txt:25
* /mnt/shared/dataset1_client_server/4_clients/client_1/folder2/folderA/Document10378.txt:19
* /mnt/shared/dataset1_client_server/4_clients/client_1/folder2/Document101.txt:17
* /mnt/shared/dataset1_client_server/4_clients/client_1/folder1/Document10135.txt:16
* /mnt/shared/dataset1_client_server/4_clients/client_1/folder2/Document1025.txt:15
Search completed in 0.01 seconds
Top 10 results:
1. /mnt/shared/dataset1_client_server/4_clients/client_1/folder2/folderA/Document10350.txt (frequency: 32)
2. /mnt/shared/dataset1_client_server/4_clients/client_1/folder2/folderA/Document10351.txt (frequency: 29)
3. /mnt/shared/dataset1_client_server/4_clients/client_1/folder1/Document10116.txt (frequency: 27)
4. /mnt/shared/dataset1_client_server/4_clients/client_1/folder1/Document10060.txt (frequency: 26)
5. /mnt/shared/dataset1_client_server/4_clients/client_1/folder1/Document10058.txt (frequency: 25)
6. /mnt/shared/dataset1_client_server/4_clients/client_1/folder2/folderA/Document10352.txt (frequency: 25)
7. /mnt/shared/dataset1_client_server/4_clients/client_1/folder2/folderA/Document10378.txt (frequency: 19)
8. /mnt/shared/dataset1_client_server/4_clients/client_1/folder2/Document101.txt (frequency: 17)
9. /mnt/shared/dataset1_client_server/4_clients/client_1/folder1/Document10135.txt (frequency: 16)
10. /mnt/shared/dataset1_client_server/4_clients/client_1/folder2/Document1025.txt (frequency: 15)
```

Dataset2: 1 Client (client_1)

```
[rpatil5@roub:~/csc-435-pa4-Rohan-Patil-1/app-java$ java -cp target/app-java-1.0-SNAPSHOT.jar csc435.app.FileRetrievalBenchmark 127.0.0.1 3019 1 /mnt/shared/dataset2_client_server/1_client/client_1
Picked up JAVA_TOOL_OPTIONS: -Xms2g -Xmx8g
Connection Successful!
Worker indexed dataset '/mnt/shared/dataset2_client_server/1_client/client_1' in 79.18 seconds, 537197637 bytes read
Benchmark completed in 79.24 seconds
Search completed in 0.0238 seconds
Search results (top 10 out of 1161):
* /mnt/shared/dataset2_client_server/1_client/client_1/folder2/Document10706.txt:134
* /mnt/shared/dataset2_client_server/1_client/client_1/folder7/folderC/Document14554.txt:127
* /mnt/shared/dataset2_client_server/1_client/client_1/folder7/folderD/Document14586.txt:106
* /mnt/shared/dataset2_client_server/1_client/client_1/folder5/folderC/Document12958.txt:100
* /mnt/shared/dataset2_client_server/1_client/client_1/folder3/Document118.txt:95
* /mnt/shared/dataset2_client_server/1_client/client_1/folder4/Document12291.txt:76
* /mnt/shared/dataset2_client_server/1_client/client_1/folder6/Document1361.txt:70
* /mnt/shared/dataset2_client_server/1_client/client_1/folder3/folderB/Document11667.txt:68
* /mnt/shared/dataset2_client_server/1_client/client_1/folder7/folderB/Document14237.txt:68
* /mnt/shared/dataset2_client_server/1_client/client_1/folder7/folderD/Document14587.txt:66
Search completed in 0.02 seconds
Top 10 results:
1. /mnt/shared/dataset2_client_server/1_client/client_1/folder2/Document10706.txt (frequency: 134)
2. /mnt/shared/dataset2_client_server/1_client/client_1/folder7/folderC/Document14554.txt (frequency: 127)
3. /mnt/shared/dataset2_client_server/1_client/client_1/folder7/folderD/Document14586.txt (frequency: 106)
4. /mnt/shared/dataset2_client_server/1_client/client_1/folder5/folderC/Document12958.txt (frequency: 100)
5. /mnt/shared/dataset2_client_server/1_client/client_1/folder3/Document118.txt (frequency: 95)
6. /mnt/shared/dataset2_client_server/1_client/client_1/folder4/Document12291.txt (frequency: 76)
7. /mnt/shared/dataset2_client_server/1_client/client_1/folder6/Document1361.txt (frequency: 70)
8. /mnt/shared/dataset2_client_server/1_client/client_1/folder3/folderB/Document11667.txt (frequency: 68)
9. /mnt/shared/dataset2_client_server/1_client/client_1/folder7/folderB/Document14237.txt (frequency: 68)
10. /mnt/shared/dataset2_client_server/1_client/client_1/folder7/folderD/Document14587.txt (frequency: 66)
```

Dataset2: 2 Clients (client_1 and client_2)

```
[rpatil5@roub:~/csc-435-pa4-Rohan-Patil-1/app-java$ java -cp target/app-java-1.0-SNAPSHOT.jar csc435.app.FileRetrievalBenchmark 127.0.0.1 3019 2 /mnt/shared/dataset2_client_server/2_clients/client_1 /mnt/s]
hared/dataset2_client_server/2_clients/client_2
Picked up JAVA_TOOL_OPTIONS: -Xms2g -Xmx8g
Connection Successful!
Connection Successful!
Worker indexed dataset '/mnt/shared/dataset2_client_server/2_clients/client_1' in 81.24 seconds, 270249965 bytes read
Worker indexed dataset '/mnt/shared/dataset2_client_server/2_clients/client_2' in 81.97 seconds, 266947672 bytes read
Benchmark completed in 82.01 seconds
Search completed in 0.0205 seconds
Search results (top 10 out of 583):
* /mnt/shared/dataset2_client_server/2_clients/client_1/folder2/Document10706.txt:134
* /mnt/shared/dataset2_client_server/2_clients/client_1/folder3/Document118.txt:95
* /mnt/shared/dataset2_client_server/2_clients/client_1/folder4/Document12291.txt:76
* /mnt/shared/dataset2_client_server/2_clients/client_1/folder3/folderB/Document11667.txt:68
* /mnt/shared/dataset2_client_server/2_clients/client_1/folder4/Document1226.txt:59
* /mnt/shared/dataset2_client_server/2_clients/client_1/folder4/Document12088.txt:59
* /mnt/shared/dataset2_client_server/2_clients/client_1/folder2/Document10807.txt:57
* /mnt/shared/dataset2_client_server/2_clients/client_1/folder3/Document11272.txt:57
* /mnt/shared/dataset2_client_server/2_clients/client_1/folder3/folderA/Document11562.txt:53
* /mnt/shared/dataset2_client_server/2_clients/client_1/folder4/Document12035.txt:51
Search completed in 0.02 seconds
Top 10 results:
1. /mnt/shared/dataset2_client_server/2_clients/client_1/folder2/Document10706.txt (frequency: 134)
2. /mnt/shared/dataset2_client_server/2_clients/client_1/folder3/Document118.txt (frequency: 95)
3. /mnt/shared/dataset2_client_server/2_clients/client_1/folder4/Document12291.txt (frequency: 76)
4. /mnt/shared/dataset2_client_server/2_clients/client_1/folder3/folderB/Document11667.txt (frequency: 68)
5. /mnt/shared/dataset2_client_server/2_clients/client_1/folder4/Document1226.txt (frequency: 59)
6. /mnt/shared/dataset2_client_server/2_clients/client_1/folder4/Document12088.txt (frequency: 59)
7. /mnt/shared/dataset2_client_server/2_clients/client_1/folder2/Document10807.txt (frequency: 57)
8. /mnt/shared/dataset2_client_server/2_clients/client_1/folder3/Document11272.txt (frequency: 57)
9. /mnt/shared/dataset2_client_server/2_clients/client_1/folder3/folderA/Document11562.txt (frequency: 53)
10. /mnt/shared/dataset2_client_server/2_clients/client_1/folder4/Document12035.txt (frequency: 51)
```

Dataset2: 4 Clients (client_1, client_2, client_3 and client_4)

```
[rpatil5@roub:~/csc-435-pa4-Rohan-Patil-1/app-java$ java -cp target/app-java-1.0-SNAPSHOT.jar csc435.app.FileRetrievalBenchmark 127.0.0.1 3019 4 /mnt/shared/dataset2_client_server/4_clients/client_1 /mnt/s]
hared/dataset2_client_server/4_clients/client_2 /mnt/shared/dataset2_client_server/4_clients/client_3 /mnt/shared/dataset2_client_server/4_clients/client_4
Picked up JAVA_TOOL_OPTIONS: -Xms2g -Xmx8g
Connection Successful!
Connection Successful!
Connection Successful!
Connection Successful!
Worker indexed dataset '/mnt/shared/dataset2_client_server/4_clients/client_2' in 94.82 seconds, 134700611 bytes read
Worker indexed dataset '/mnt/shared/dataset2_client_server/4_clients/client_3' in 97.94 seconds, 134785852 bytes read
Worker indexed dataset '/mnt/shared/dataset2_client_server/4_clients/client_1' in 98.09 seconds, 135549354 bytes read
Worker indexed dataset '/mnt/shared/dataset2_client_server/4_clients/client_4' in 110.17 seconds, 132161820 bytes read
Benchmark completed in 110.22 seconds
Search completed in 0.0188 seconds
Search results (top 10 out of 275):
* /mnt/shared/dataset2_client_server/4_clients/client_1/folder2/Document10706.txt:134
* /mnt/shared/dataset2_client_server/4_clients/client_1/folder2/Document10807.txt:57
* /mnt/shared/dataset2_client_server/4_clients/client_1/folder1/Document10674.txt:45
* /mnt/shared/dataset2_client_server/4_clients/client_1/folder2/folderA/Document10985.txt:41
* /mnt/shared/dataset2_client_server/4_clients/client_1/folder1/Document10633.txt:41
* /mnt/shared/dataset2_client_server/4_clients/client_1/folder2/Document10705.txt:40
* /mnt/shared/dataset2_client_server/4_clients/client_1/folder1/Document10681.txt:38
* /mnt/shared/dataset2_client_server/4_clients/client_1/folder2/Document10700.txt:35
* /mnt/shared/dataset2_client_server/4_clients/client_1/folder2/folderA/Document10998.txt:33
* /mnt/shared/dataset2_client_server/4_clients/client_1/folder1/Document10350.txt:32
Search completed in 0.02 seconds
Top 10 results:
1. /mnt/shared/dataset2_client_server/4_clients/client_1/folder2/Document10706.txt (frequency: 134)
2. /mnt/shared/dataset2_client_server/4_clients/client_1/folder2/Document10807.txt (frequency: 57)
3. /mnt/shared/dataset2_client_server/4_clients/client_1/folder1/Document10674.txt (frequency: 45)
4. /mnt/shared/dataset2_client_server/4_clients/client_1/folder2/folderA/Document10985.txt (frequency: 41)
5. /mnt/shared/dataset2_client_server/4_clients/client_1/folder1/Document10633.txt (frequency: 41)
6. /mnt/shared/dataset2_client_server/4_clients/client_1/folder2/Document10705.txt (frequency: 40)
7. /mnt/shared/dataset2_client_server/4_clients/client_1/folder1/Document10681.txt (frequency: 38)
8. /mnt/shared/dataset2_client_server/4_clients/client_1/folder2/Document10700.txt (frequency: 35)
9. /mnt/shared/dataset2_client_server/4_clients/client_1/folder2/folderA/Document10998.txt (frequency: 33)
10. /mnt/shared/dataset2_client_server/4_clients/client_1/folder1/Document10350.txt (frequency: 32)
```

Dataset3: 1 Client (client_1)

```
[rpatil5@roub:~/csc-435-pa4-Rohan-Patil-1/app-java$ java -cp target/app-java-1.0-SNAPSHOT.jar csc435.app.FileRetrievalBenchmark 127.0.0.1 3019 1 /mnt/shared/dataset3_client_server/1_client/client_1
Picked up JAVA_TOOL_OPTIONS: -Xms2g -Xmx8g
Connection Successful!
Worker indexed dataset '/mnt/shared/dataset3_client_server/1_client/client_1' in 547.25 seconds, 2145183920 bytes read
Benchmark completed in 547.32 seconds
Search completed in 0.0406 seconds
Search results (top 10 out of 4719):
* /mnt/shared/dataset3_client_server/1_client/client_1/folder7/Document3008.txt:342
* /mnt/shared/dataset3_client_server/1_client/client_1/folder7/folderA/Document27638.txt:294
* /mnt/shared/dataset3_client_server/1_client/client_1/folder4/Document200.txt:266
* /mnt/shared/dataset3_client_server/1_client/client_1/folder6/Document24527.txt:194
* /mnt/shared/dataset3_client_server/1_client/client_1/folder7/folderA/Document27676.txt:159
* /mnt/shared/dataset3_client_server/1_client/client_1/folder4/Document2016.txt:157
* /mnt/shared/dataset3_client_server/1_client/client_1/folder3/Document1662.txt:155
* /mnt/shared/dataset3_client_server/1_client/client_1/folder7/folderA/Document27675.txt:144
* /mnt/shared/dataset3_client_server/1_client/client_1/folder3/Document180.txt:140
* /mnt/shared/dataset3_client_server/1_client/client_1/folder3/folderB/Document18637.txt:138
Search completed in 0.04 seconds
Top 10 results:
1. /mnt/shared/dataset3_client_server/1_client/client_1/folder7/Document3008.txt (frequency: 342)
2. /mnt/shared/dataset3_client_server/1_client/client_1/folder7/folderA/Document27638.txt (frequency: 294)
3. /mnt/shared/dataset3_client_server/1_client/client_1/folder4/Document200.txt (frequency: 266)
4. /mnt/shared/dataset3_client_server/1_client/client_1/folder6/Document24527.txt (frequency: 194)
5. /mnt/shared/dataset3_client_server/1_client/client_1/folder7/folderA/Document27676.txt (frequency: 159)
6. /mnt/shared/dataset3_client_server/1_client/client_1/folder4/Document2016.txt (frequency: 157)
7. /mnt/shared/dataset3_client_server/1_client/client_1/folder3/Document1662.txt (frequency: 155)
8. /mnt/shared/dataset3_client_server/1_client/client_1/folder7/folderA/Document27675.txt (frequency: 144)
9. /mnt/shared/dataset3_client_server/1_client/client_1/folder3/Document180.txt (frequency: 140)
10. /mnt/shared/dataset3_client_server/1_client/client_1/folder3/folderB/Document18637.txt (frequency: 138)
```

Dataset3: 2 Clients (client_1 and client_2)

```
[rpatil5@roub:~/csc-435-pa4-Rohan-Patil-1/app-java$ java -cp target/app-java-1.0-SNAPSHOT.jar csc435.app.FileRetrievalBenchmark 127.0.0.1 3019 2 /mnt/shared/dataset3_client_server/2_clients/client_1 /mnt/s]
hared/dataset3_client_server/2_clients/client_2
Picked up JAVA_TOOL_OPTIONS: -Xms2g -Xmx8g
Connection Successful!
Connection Successful!
Worker indexed dataset '/mnt/shared/dataset3_client_server/2_clients/client_2' in 382.96 seconds, 1070438409 bytes read
Worker indexed dataset '/mnt/shared/dataset3_client_server/2_clients/client_1' in 526.04 seconds, 1074745511 bytes read
Benchmark completed in 526.08 seconds
Search completed in 0.0943 seconds
Search results (top 10 out of 2306):
* /mnt/shared/dataset3_client_server/2_clients/client_1/folder4/Document200.txt:266
* /mnt/shared/dataset3_client_server/2_clients/client_1/folder4/Document2016.txt:157
* /mnt/shared/dataset3_client_server/2_clients/client_1/folder3/Document1662.txt:155
* /mnt/shared/dataset3_client_server/2_clients/client_1/folder3/Document180.txt:140
* /mnt/shared/dataset3_client_server/2_clients/client_1/folder3/folderB/Document18637.txt:138
* /mnt/shared/dataset3_client_server/2_clients/client_1/folder1/Document10706.txt:134
* /mnt/shared/dataset3_client_server/2_clients/client_1/folder2/folderA/Document14554.txt:127
* /mnt/shared/dataset3_client_server/2_clients/client_1/folder2/folderA/Document14586.txt:106
* /mnt/shared/dataset3_client_server/2_clients/client_1/folder4/Document1909.txt:102
* /mnt/shared/dataset3_client_server/2_clients/client_1/folder2/Document12958.txt:100
Search completed in 0.09 seconds
Top 10 results:
1. /mnt/shared/dataset3_client_server/2_clients/client_1/folder4/Document200.txt (frequency: 266)
2. /mnt/shared/dataset3_client_server/2_clients/client_1/folder4/Document2016.txt (frequency: 157)
3. /mnt/shared/dataset3_client_server/2_clients/client_1/folder3/Document1662.txt (frequency: 155)
4. /mnt/shared/dataset3_client_server/2_clients/client_1/folder3/Document180.txt (frequency: 140)
5. /mnt/shared/dataset3_client_server/2_clients/client_1/folder3/folderB/Document18637.txt (frequency: 138)
6. /mnt/shared/dataset3_client_server/2_clients/client_1/folder1/Document10706.txt (frequency: 134)
7. /mnt/shared/dataset3_client_server/2_clients/client_1/folder2/folderA/Document14554.txt (frequency: 127)
8. /mnt/shared/dataset3_client_server/2_clients/client_1/folder2/folderA/Document14586.txt (frequency: 106)
9. /mnt/shared/dataset3_client_server/2_clients/client_1/folder4/Document1909.txt (frequency: 102)
10. /mnt/shared/dataset3_client_server/2_clients/client_1/folder2/Document12958.txt (frequency: 100)
```

Dataset3: 4 Clients (client_1, client_2, client_3 and client_4)

```
[rpatil5@roub:~/csc-435-pa4-Rohan-Patil-1/app-java$ java -cp target/app-java-1.0-SNAPSHOT.jar csc435.app.FileRetrievalBenchmark 127.0.0.1 3019 4 /mnt/shared/dataset3_client_server/4_clients/client_1 /mnt/s]
hared/dataset3_client_server/4_clients/client_2 /mnt/shared/dataset3_client_server/4_clients/client_3 /mnt/shared/dataset3_client_server/4_clients/client_4
Picked up JAVA_TOOL_OPTIONS: -Xms2g -Xmx8g
Connection Successful!
Connection Successful!
Connection Successful!
Connection Successful!
Worker indexed dataset '/mnt/shared/dataset3_client_server/4_clients/client_3' in 216.72 seconds, 542916125 bytes read
Worker indexed dataset '/mnt/shared/dataset3_client_server/4_clients/client_1' in 231.46 seconds, 537197637 bytes read
Worker indexed dataset '/mnt/shared/dataset3_client_server/4_clients/client_2' in 233.46 seconds, 537547874 bytes read
Worker indexed dataset '/mnt/shared/dataset3_client_server/4_clients/client_4' in 301.80 seconds, 527522284 bytes read
Benchmark completed in 301.85 seconds
Search completed in 0.0254 seconds
Search results (top 10 out of 1161):
* /mnt/shared/dataset3_client_server/4_clients/client_1/folder1/Document10706.txt:134
* /mnt/shared/dataset3_client_server/4_clients/client_1/folder2/folderA/Document14554.txt:127
* /mnt/shared/dataset3_client_server/4_clients/client_1/folder2/folderA/Document14586.txt:106
* /mnt/shared/dataset3_client_server/4_clients/client_1/folder2/Document12958.txt:100
* /mnt/shared/dataset3_client_server/4_clients/client_1/folder1/Document118.txt:95
* /mnt/shared/dataset3_client_server/4_clients/client_1/folder1/Document12291.txt:76
* /mnt/shared/dataset3_client_server/4_clients/client_1/folder2/Document1361.txt:70
* /mnt/shared/dataset3_client_server/4_clients/client_1/folder2/Document14237.txt:68
* /mnt/shared/dataset3_client_server/4_clients/client_1/folder1/Document11667.txt:68
* /mnt/shared/dataset3_client_server/4_clients/client_1/folder2/folderA/Document14587.txt:66
Search completed in 0.03 seconds
Top 10 results:
1. /mnt/shared/dataset3_client_server/4_clients/client_1/folder1/Document10706.txt (frequency: 134)
2. /mnt/shared/dataset3_client_server/4_clients/client_1/folder2/folderA/Document14554.txt (frequency: 127)
3. /mnt/shared/dataset3_client_server/4_clients/client_1/folder2/folderA/Document14586.txt (frequency: 106)
4. /mnt/shared/dataset3_client_server/4_clients/client_1/folder2/Document12958.txt (frequency: 100)
5. /mnt/shared/dataset3_client_server/4_clients/client_1/folder1/Document118.txt (frequency: 95)
6. /mnt/shared/dataset3_client_server/4_clients/client_1/folder1/Document12291.txt (frequency: 76)
7. /mnt/shared/dataset3_client_server/4_clients/client_1/folder2/Document1361.txt (frequency: 70)
8. /mnt/shared/dataset3_client_server/4_clients/client_1/folder2/Document14237.txt (frequency: 68)
9. /mnt/shared/dataset3_client_server/4_clients/client_1/folder1/Document11667.txt (frequency: 68)
10. /mnt/shared/dataset3_client_server/4_clients/client_1/folder2/folderA/Document14587.txt (frequency: 66)
```

Additional feature: Whenever i use "Quit" at server end, all the allocated memory and cache gets cleared and again can run huge dataset with ease.

FILE RETRIEVAL BENCHMARK TABLE:

Dataset	Client	Indexing time	Searching time
Dataset1	1_client	22.97s	0.0255s
	2_clients	9.44s	0.0190s
	4_clients	8.61s	0.0137s
Dataset2	1_client	79.24s	0.0238s
	2_clients	82.01s	0.0205s
	4_clients	110.22s	0.0188s
Dataset3	1_client	547.32s	0.0406s
	2_clients	526.08s	0.0943s
	4_clients	301.85s	0.0254s