

Assumptions and Execution

I have done the project in windows from my laptop. The entire code and command follows the windows procedure.

1. Also, I have the root directory path copied to the query classes. It can be anywhere but the root directory path alone I am copying to all the query classes to access the directory anytime according to my code structure.

```
QueryDirDep... QueryFileSe... QueryDirStr... FSQueryInte... Query.java FileSystemS...
1 package C03090.coursework2.client;
2
3 import C03090.coursework2.shared.*;
4
5 import java.io.File;
6 import java.nio.file.Path;
7 import java.nio.file.Paths;
8 import java.util.HashMap;
9 import java.util.Vector;
10
11 public class QueryFileSearch implements Query {
12     /**
13      *
14      */
15     private static final long serialVersionUID = 3652925158658358109L;
16     final String root_path_str = "C:\\Distributed\\CW2\\DemoFolders\\";
17     String fileName;
18     Vector<String> v = new Vector<String>();
19
20     public QueryFileSearch(String filename) {
21
```

This is done for all the query classes – QueryDirStructure, QueryDirDepth, QueryFilename.

2. Also, I got error without generating those corresponding serial Version id. So, I took the corresponding version id which I got from the command prompt generating mismatch and changed the generated version id in the code to make it similar and serializable.

Below is the command and output obtained:

1. RMI

```
C:\Program Files\Java\jdk1.8.0_241\bin>start rmiregistry -J-Djava.rmi.server.useCodebaseOnly=false
```

2. Server

```
C:\Distributed\CW2\Coursework2-server>java -cp ./bin/ -Djava.rmi.server.codebase=file:/C:/Distributed/CW2/queryserver.jar -Djava.rmi.server.useCodebaseOnly=false -Djava.security.policy=file:/C:/Distributed/CW2/Coursework2-server/policy.pemission C03090.coursework2.server.FileSystemServer
FileSystemSearch Engine bound
```

3. Client

```
C:\Distributed\CW2\Coursework2-client>java -cp ./bin/ -Djava.rmi.server.codebase=file:/C:/Distributed/CW2/queryclient.jar
-Djava.rmi.server.useCodebaseOnly=false -Djava.security.policy=file:/C:/Distributed/CW2/Coursework2-server/policy.permission
C03090.coursework2.client.FileSystemQueryClient 10.25.131.60 "A/B" "File2"
Directory Structure : B
Directory depth : 0
File : [C:\Distributed\CW2\DemoFolders\A\C\E\File2.txt]

C:\Distributed\CW2\Coursework2-client>java -cp ./bin/ -Djava.rmi.server.codebase=file:/C:/Distributed/CW2/queryclient.jar
-Djava.rmi.server.useCodebaseOnly=false -Djava.security.policy=file:/C:/Distributed/CW2/Coursework2-server/policy.permission
C03090.coursework2.client.FileSystemQueryClient 10.25.131.60 "A/" "File2"
Directory Structure : AB,C,{D,E,{F,}}
Directory depth : 4
File : [C:\Distributed\CW2\DemoFolders\A\C\E\File2.txt]

C:\Distributed\CW2\Coursework2-client>java -cp ./bin/ -Djava.rmi.server.codebase=file:/C:/Distributed/CW2/queryclient.jar
-Djava.rmi.server.useCodebaseOnly=false -Djava.security.policy=file:/C:/Distributed/CW2/Coursework2-server/policy.permission
C03090.coursework2.client.FileSystemQueryClient 10.25.131.60 "A" "File2"
Directory Structure : AB,C,{D,E,{F,}}
Directory depth : 4
File : [C:\Distributed\CW2\DemoFolders\A\C\E\File2.txt]

C:\Distributed\CW2\Coursework2-client>java -cp ./bin/ -Djava.rmi.server.codebase=file:/C:/Distributed/CW2/queryclient.jar
-Djava.rmi.server.useCodebaseOnly=false -Djava.security.policy=file:/C:/Distributed/CW2/Coursework2-server/policy.permission
C03090.coursework2.client.FileSystemQueryClient 10.25.131.60 "A/C" "File2"
Directory Structure : CD,E,{F,}
Directory depth : 3
File : [C:\Distributed\CW2\DemoFolders\A\C\E\File2.txt]

C:\Distributed\CW2\Coursework2-client>
```