Assign 1

Search.java

```java
package remotes;

import java.rmi.Remote;
import java.rmi.RemoteException;

public interface Search extends Remote {
    public String query(String search) throws RemoteException;
}
```

SearchQuery.java

```java
package remotes;

import java.rmi.*;
import java.rmi.server.*;

public class SearchQuery extends UnicastRemoteObject implements Search {
    public SearchQuery() throws RemoteException {
        super();
    }

    public String query(String search) throws RemoteException {
        String result = "No results found";
        if (search.equals("p2p")) {
            result = "Found 1 result";
        }
        return result;
    }
}
```

SearchServer.java

```java
package server;

import java.rmi.*;
import java.rmi.registry.*;
```

```java
import remotes.Search;
import remotes.SearchQuery;

public class SearchServer {
    public static void main(String[] args) {
        try {
            Search search = new SearchQuery();
            Registry registry = LocateRegistry.createRegistry(1099);
            Naming.rebind("rmi://localhost:1099"+ "/REMOTE_SEARCH", search);
            System.out.println("Search Server ready");
        } catch (Exception e) {
            System.out.println("Search Server main " + e.getMessage());
        }
    }
}
```

ClientRequest.java

```java
package client;

import java.rmi.*;

import remotes.Search;

public class ClientRequest {
    public static void main(String[] args) {
        try {
            String search = (args.length < 1) ? "p2p" : args[0];
            String url = "rmi://localhost:1099/REMOTE_SEARCH";
            Search access = (Search) Naming.lookup(url);
            String result = access.query(search);
            System.out.println("Found: " + result);
        } catch (Exception e) {
            System.out.println("ClientRequest exception: " + e.getMessage());
        }
    }
}
```

Output

Server

```
PS D:\Acad\DS Assign\Assign1>  & 'C:\Program Files\Eclipse Adoptium\jdk-21.0.2.13-hotspot\bin\java.exe' '-XX:+ShowCodeDetailsInExc
eptionMessages' '-cp' 'C:\Users\kanch\AppData\Roaming\Code\User\workspaceStorage\fcadef60e121916cc193c7d2d4daad24\redhat.java\jdt_
ws\Assign1_272fc5c2\bin' 'server.SearchServer'
Search Server ready
```

Client

```
PS D:\Acad\DS Assign\Assign1>  & 'C:\Program Files\Eclipse Adoptium\jdk-21.0.2.13-hotspot\bin\java.exe' '-XX:+ShowCodeDetailsInExc
eptionMessages' '-cp' 'C:\Users\kanch\AppData\Roaming\Code\User\workspaceStorage\fcadef60e121916cc193c7d2d4daad24\redhat.java\jdt_
ws\Assign1_272fc5c2\bin' 'client.ClientRequest'
Found: Found 1 result
PS D:\Acad\DS Assign\Assign1>
```