

**CONTENT BEYOND SYLLABUS****IMPLEMENTATION OF REMOTE COMMAND EXECUTION (RCE)****AIM**

To implement Remote Command Execution(RCE).

**ALGORITHM****CLIENT SIDE**

1. Establish a connection between the Client and Server.

```
Socket client=new Socket("127.0.0.1",6555);
```

2. Create instances for input and output streams.

```
Print Stream ps=new Print Stream(client.getOutputStream());
```

3. `BufferedReader br=new BufferedReader(new InputStreamReader(System.in));`

4. Enter the command in Client Window.

Send the message to its output

```
str=br.readLine();
```

```
ps.println(str);
```

**SERVER SIDE**

1. Accept the connection request by the client.

```
ServerSocket server=new ServerSocket(6555);
```

```
Sockets=server.accept();
```

2. Get the IP address from its input stream.

```
BufferedReader br1=new BufferedReader(new InputStreamReader(s.getInputStream()));
```

```
ip=br1.readLine();
```

3. During runtime execute the process

```
Runtime r=Runtime.getRuntime();
```

```
Process p=r.exec(str);
```

**CLIENT PROGRAM**

```
import java.io.*;
```

```
import java.net.*;
```

```
class clientRCE
```

```
{
```

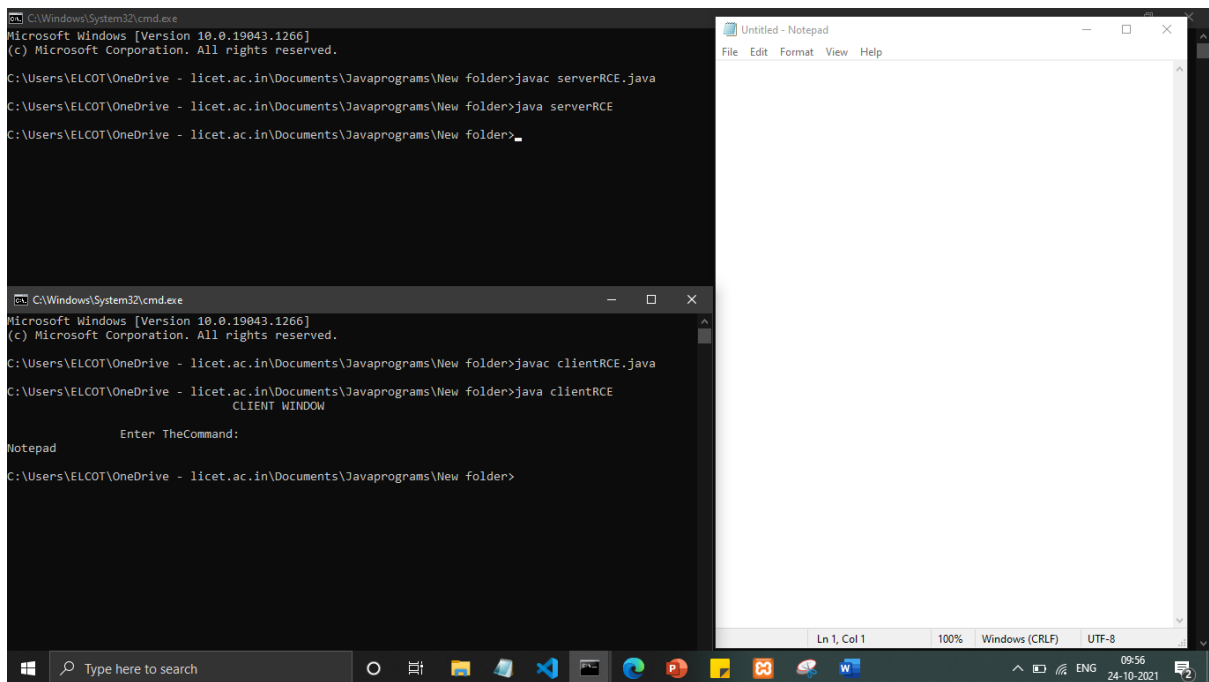
```
public static void main(String args[]) throws IOException
{
    try
    {
        String str;Socket client=new Socket("127.0.0.1",6555);
        PrintStream ps=new PrintStream(client.getOutputStream());
        BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
        System.out.println("\t\t\tCLIENT WINDOW\n\n\t\tEnter TheCommand:");
        str=br.readLine();
        ps.println(str);
    }
    catch(IOException e)
    {
        System.out.println("Error"+e); }
    }
}
```

### **SERVER PROGRAM**

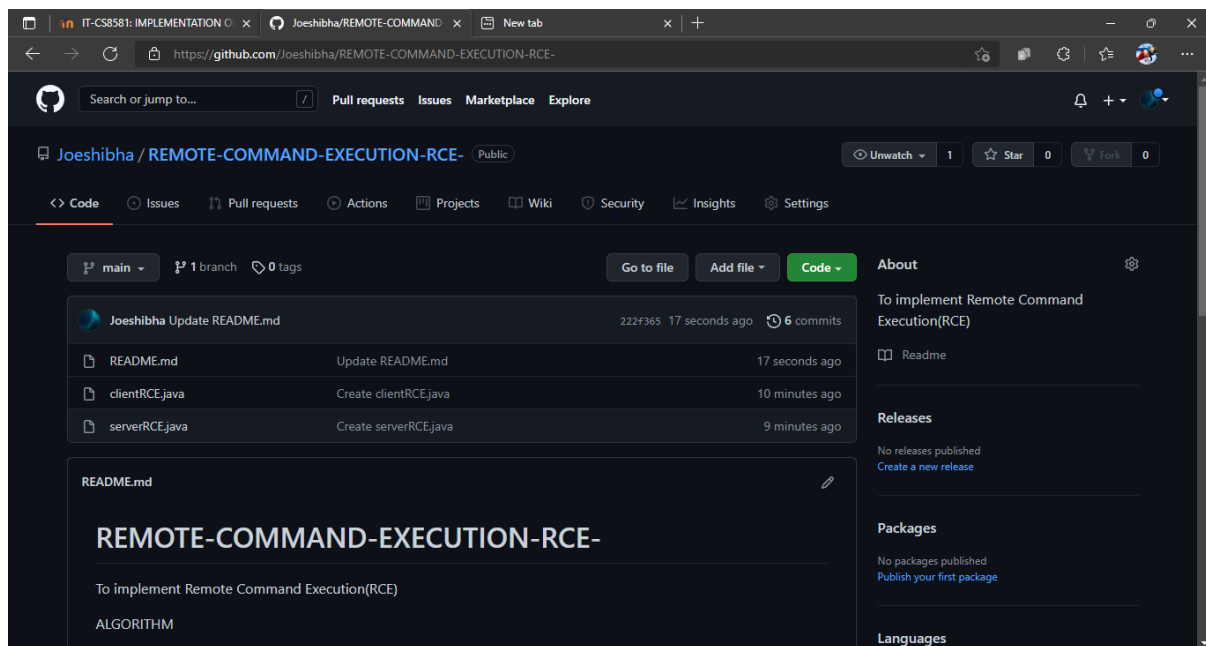
```
import java.io.*;
import java.net.*;
class serverRCE
{
    public static void main(String args[]) throws IOException
    {
        try
        {
            String str;
            ServerSocket server=new ServerSocket(6555);
            Socket s=server.accept();
            BufferedReader br=new BufferedReader(new InputStreamReader(s.getInputStream()));
            str=br.readLine();
```

```
Runtime r=Runtime.getRuntime();  
Process p=r.exec(str);  
}  
catch(IOException e)  
{  
System.out.println("Error"+e);  
}  
}  
}
```

## OUTPUT



```
C:\Windows\System32\cmd.exe  
Microsoft Windows [Version 10.0.19043.1266]  
(c) Microsoft Corporation. All rights reserved.  
  
C:\Users\ELCOT\OneDrive - licet.ac.in\Documents\Javaprograms\New folder>javac serverRCE.java  
C:\Users\ELCOT\OneDrive - licet.ac.in\Documents\Javaprograms\New folder>java serverRCE  
C:\Users\ELCOT\OneDrive - licet.ac.in\Documents\Javaprograms\New folder>  
  
C:\Windows\System32\cmd.exe  
Microsoft Windows [Version 10.0.19043.1266]  
(c) Microsoft Corporation. All rights reserved.  
  
C:\Users\ELCOT\OneDrive - licet.ac.in\Documents\Javaprograms\New folder>javac clientRCE.java  
C:\Users\ELCOT\OneDrive - licet.ac.in\Documents\Javaprograms\New folder>java clientRCE  
CLIENT WINDOW  
  
Enter TheCommand:  
Notepad  
C:\Users\ELCOT\OneDrive - licet.ac.in\Documents\Javaprograms\New folder>
```



## RESULT

Thus the implementation of RCE is done & executed and then published in github successfully.