

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);
```

Program:**Client side**

```
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 side

```
import java.io.*;
import java.net.*;
class serverRCE
{
public static void main(String args[]) throws IOException
{
```

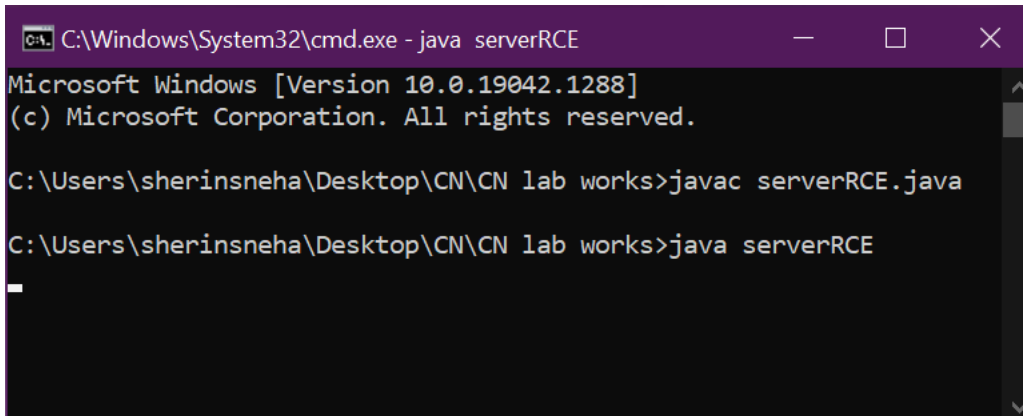
```

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:

Server side



```

C:\Windows\System32\cmd.exe - java serverRCE
Microsoft Windows [Version 10.0.19042.1288]
(c) Microsoft Corporation. All rights reserved.

C:\Users\sherinsneha\Desktop\CN\CN lab works>javac serverRCE.java

C:\Users\sherinsneha\Desktop\CN\CN lab works>java serverRCE
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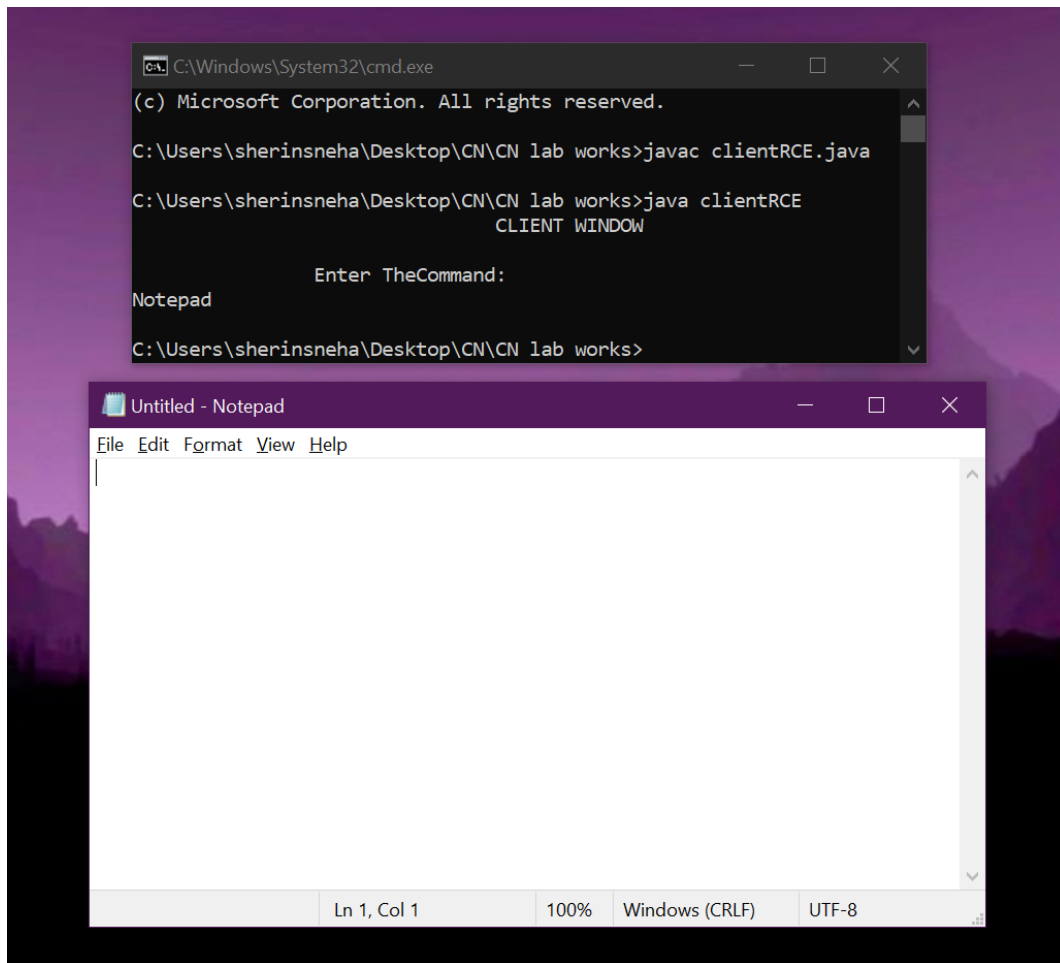
```

CLIENT WINDOW

EnterTheCommand:

Notepad

Client side:



Result:

Thus the implementation RCE is done & executed successfully.