Assignment 1B

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Problem statement - To develop any distributed application through

implementing client-server communication programs based on JAVA

RMI.

Code:
SERVER

```java
//program for server application
import java.rmi.*;
import java.rmi.registry.*;
public class Server
{
    public static void main(String args[])
    {
        try
        {

            Transfer obj = new TransferFile();

            // rmiregistry within the server JVM with
            // port number 1900
            LocateRegistry.createRegistry(1900);


            Naming.rebind("rmi://localhost:1900"+
                        "/getTransferFunc",obj);
        }
        catch(Exception ae)
        {
            System.out.println(ae);
```

```
        }
    }
}
```

TRANSFER.JAVA

```java
import java.rmi.*;
public interface Transfer extends Remote
{
    // Declaring the method prototype
    public String transfer(String filename) throws Exception;
}
```

TRANSFERFILE.JAVA

```java
import java.io.File;
import java.io.FileWriter;
import java.io.IOException;
import java.rmi.*;
import java.rmi.server.*;


public class TransferFile extends UnicastRemoteObject
                        implements Transfer
{

    TransferFile() throws RemoteException
    {
        super();
    }


    public String transfer(String str)
                    throws Exception
    {
```

```java
        String[] temp = str.split("###",2);
        File obj = new File(temp[0]);


        if(obj.createNewFile()) {
            String str;
            FileWriter fileWrite = new FileWriter(temp[0]);

            fileWrite.write(temp[1]);

            fileWrite.close();
            }
        return "Done";

    }
}
```

CLENTREQUEST.JAVA

```java
//program for client application
import java.io.BufferedReader;
import java.io.File;
import java.io.InputStreamReader;
import java.rmi.*;
import java.util.Scanner;
public class ClientRequest
{
    public static void main(String args[])
    {
        String answer,str = null;
        try
        {
            System.out.print("Enter the file name : ");
            BufferedReader keyRead = new BufferedReader(new
InputStreamReader(System.in));
            String fname = keyRead.readLine();
            File obj = new File(fname);

            if(obj.exists()) {
            str=fname + "###";
```

```java
            Scanner fileRead = new Scanner(obj);

                while(fileRead.hasNextLine())
                {
                str += fileRead.nextLine();
                }
                fileRead.close();
            }
            else
                System.out.println("File does not exist !");
            Transfer access =
(Transfer)Naming.lookup("rmi://localhost:1900"+ "/getTransferFunc");

            answer = access.transfer(str);
            System.out.println(answer);

        }
        catch(Exception ae)
        {
            System.out.println(ae);
        }
    }
}
```