Practical No. 1

Objective: Demonstration of a simple RMI application.

Theory:

Steps to Implement RMI: -

1. Create a Remote interface - extending java.rmi Remote interface
2. Implementing Remote interface- by making a server class
3. Write server program - Create the objects of the server class and register them in the rmi registry
4. Write the client program - access the remote server object, through the golbal name in the regsitry
5. Compiling and creating stub and skeleton - by rmic tool
6. Start the rmi registry service
7. Run the server program
8. Run the client program - Running on separate command window
9. javac *.java
10. rmic AddImp
11. start rmiregistry
12. java Server
13. java Client

Source Code:

AddImp.java import

```
java.rmi.server.UnicastRemoteObject;
public class AddImp extends UnicastRemoteObject implements Add
{
    public AddImp() throws Exception
    {
        super();
    }
    public int add(int x, int y)
    {return (x+y);   }
}
```

Server.java
```
Import java.rmi.*;
public class Server extends AddImp
{
    public Server() throws Exception
    {}
    public static void main(String args[]) throws Exception
    {
    try
        {
            AddImp ob = new AddImp();
            Naming.bind("A",ob);
            System.out.println("Server started");
        }
        catch(Exception e){
```

```java
                System.out.println("Server exception" + e);
            }
        }
    }
```

Client.java import

```java
java.rmi.*; public
class Client
{
    public Client() { }
    public static void main(String args[]) throws Exception
    {
        Add ob = (Add)Naming.lookup("A");
int c=ob.add(5,8);
System.out.println("Sum="+c);
    }
}
```
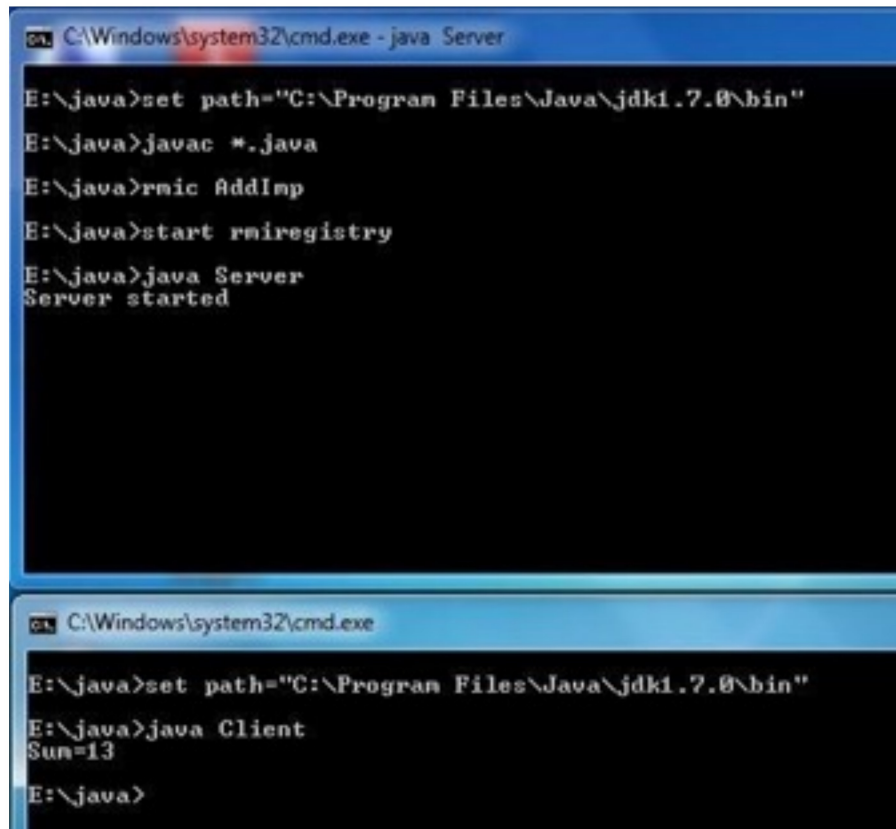
Add.java import java.rmi.Remote;

```java
    import java.rmi.RemoteException;
public interface Add extends Remote




{
    public int add(int x, int y) throws RemoteException; }
```

Output:

Result: The given program has been compiled and executed successfully.