

KISHINCHAND CHELLARAM COLLEGE, MUMBAI - 20

T.Y. B.Sc. I.T. Semester VI

Code:

Calculator.java

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

public interface Calculator extends Remote {
    int add(int a, int b) throws RemoteException;
    int subtract(int a, int b) throws RemoteException;
}
```

CalculatorImpl.java

```
import java.rmi.server.UnicastRemoteObject;
import java.rmi.RemoteException;

public class CalculatorImpl extends UnicastRemoteObject implements Calculator {
    protected CalculatorImpl() throws RemoteException {
        super();
    }

    @Override
    public int add(int a, int b) throws RemoteException {
        return a + b;
    }

    @Override
    public int subtract(int a, int b) throws RemoteException {
        return a - b;
    }
}
```

Server.java

```
import java.rmi.registry.LocateRegistry;
import java.rmi.registry.Registry;

public class Server {
    public static void main(String[] args) {
        try {
            CalculatorImpl calculator = new CalculatorImpl();
            Registry registry = LocateRegistry.createRegistry(1099);
            registry.rebind("CalculatorService", calculator);
            System.out.println("Calculator Server is ready...");
        }
        catch (Exception e) {
            System.err.println("Server exception: " + e.toString());
            e.printStackTrace();
        }
    }
}
```

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Client.java

```
import java.rmi.registry.LocateRegistry;
import java.rmi.registry.Registry;
import java.util.Scanner;

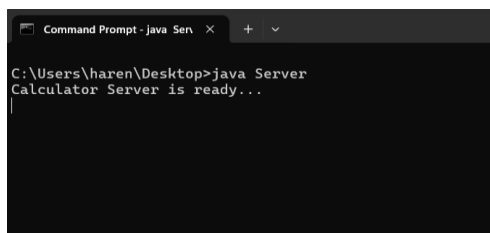
public class Client {
    public static void main(String[] args) {
        try {
            Registry registry = LocateRegistry.getRegistry("localhost", 1099);
            Calculator calculator = (Calculator) registry.lookup("CalculatorService");

            Scanner sc = new Scanner(System.in);
            System.out.print("Enter first number: ");
            int a = sc.nextInt();
            System.out.print("Enter second number: ");
            int b = sc.nextInt();

            System.out.println("Addition: " + calculator.add(a, b));
            System.out.println("Subtraction: " + calculator.subtract(a, b));

            sc.close();
        }
        catch (Exception e) {
            System.err.println("Client exception: " + e.toString());
            e.printStackTrace();
        }
    }
}
```

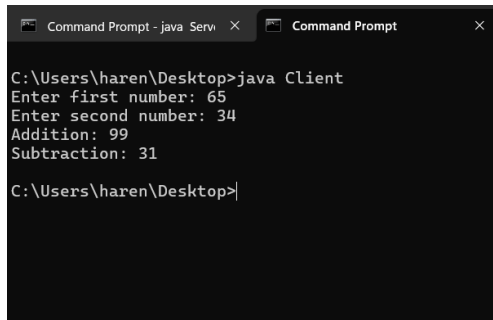
Output:



```
Command Prompt - java Ser  X  +  v
C:\Users\haren\Desktop>java Server
Calculator Server is ready...
```

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```
Command Prompt - java Servi
C:\Users\haren\Desktop>java Client
Enter first number: 65
Enter second number: 34
Addition: 99
Subtraction: 31
C:\Users\haren\Desktop>
```