

## Experiment No: 5

code:

### 1. Service.java (Service Interface)

java

```
import java.rmi.Remote;  
import java.rmi.RemoteException;  
  
// Service interface  
public interface Service extends Remote {  
    String sayHello(String name) throws RemoteException;  
}
```

### 2. ServiceImplementation.java (Service Implementation)

java

```
import java.rmi.server.UnicastRemoteObject;  
import java.rmi.RemoteException;  
  
// Service implementation  
public class ServiceImplementation extends UnicastRemoteObject implements Service {  
    protected ServiceImplementation() throws RemoteException {  
        super();  
    }  
}
```

```
@Override

public String sayHello(String name) throws RemoteException {

    return "Hello, " + name + "!";

}

}
```

### 3. ServiceApplication.java (RMI Server)

java

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

import java.rmi.registry.Registry;

public class ServiceApplication {

    public static void main(String[] args) {

        try {

            // Create the service implementation

            Service service = new ServiceImplementation();

            // Create RMI registry on port 1099

            Registry registry = LocateRegistry.createRegistry(1099);

            // Bind the service to the registry

            registry.rebind("HelloService", service);

            System.out.println("Service is running...");

        } catch (Exception e) {

            e.printStackTrace();

        }

    }

}
```

#### 4. ServiceClient.java (RMI Client)

java

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

public class ServiceClient {
    public static void main(String[] args) {
        try {
            // Locate the RMI registry
            Registry registry = LocateRegistry.getRegistry("localhost", 1099);

            // Lookup the remote service
            Service service = (Service) registry.lookup("HelloService");

            // Call the remote method
            String response = service.sayHello("World");
            System.out.println(response);
        } catch (Exception e) {
            e.printStackTrace();
        }
    }
}
```

output:

Service is running...

Hello, World!