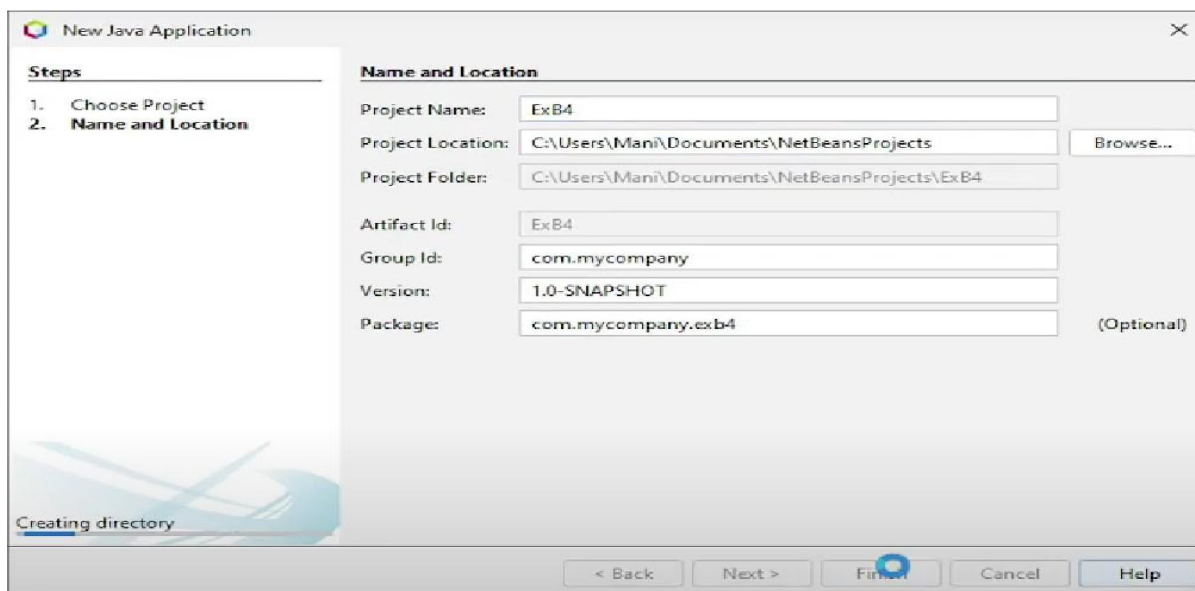
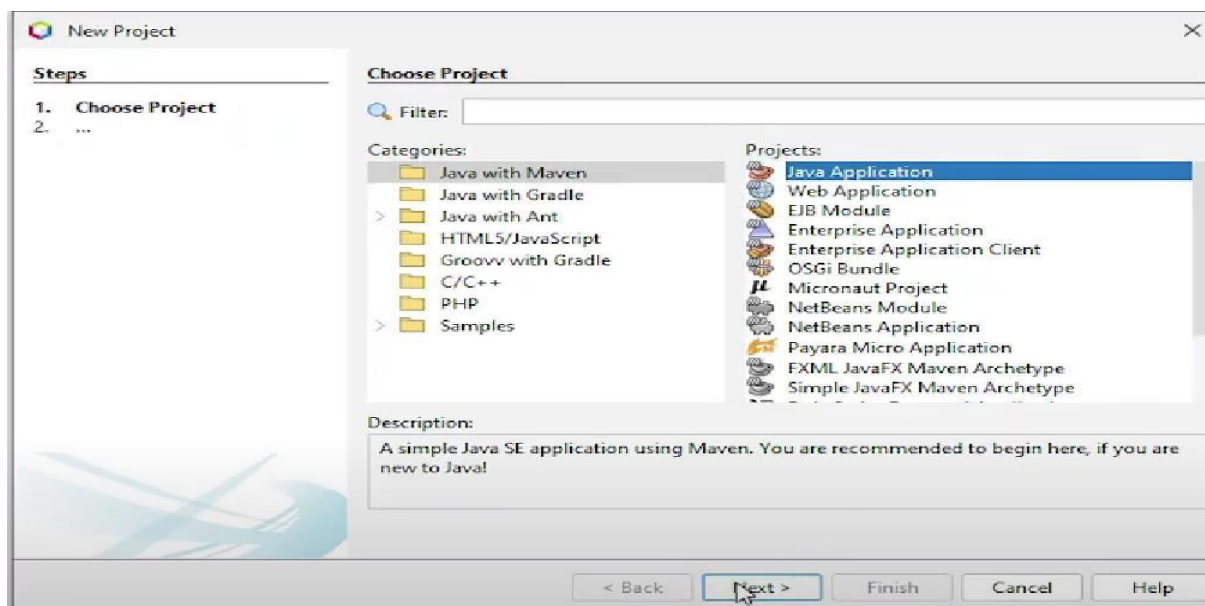


## Advanced Java & J2EE -PART B

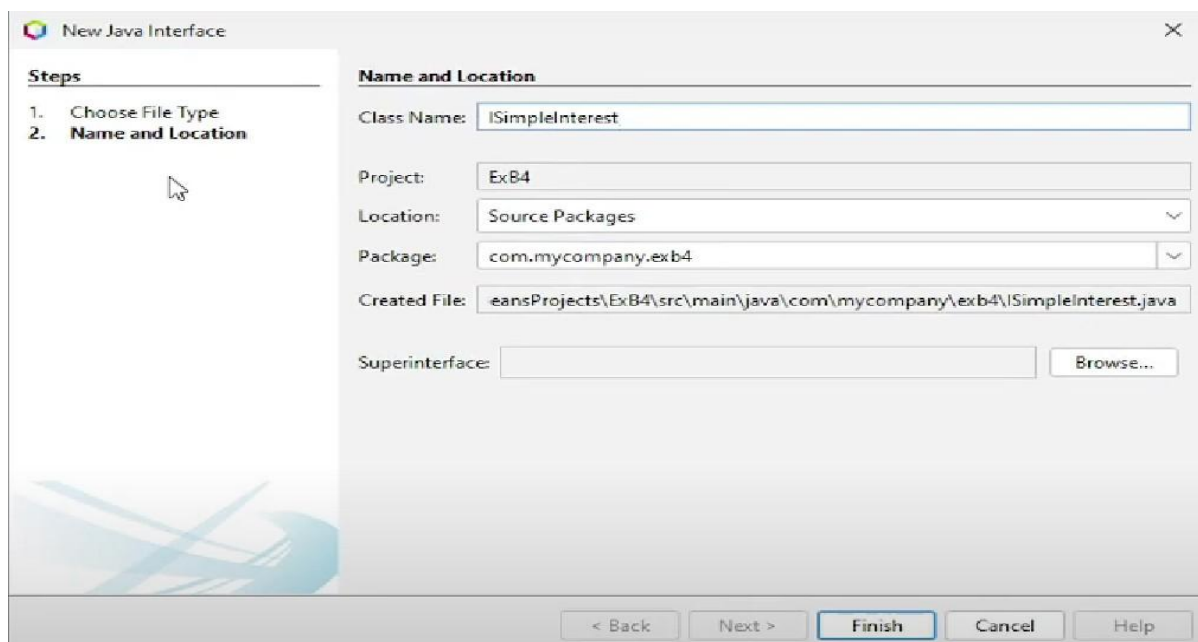
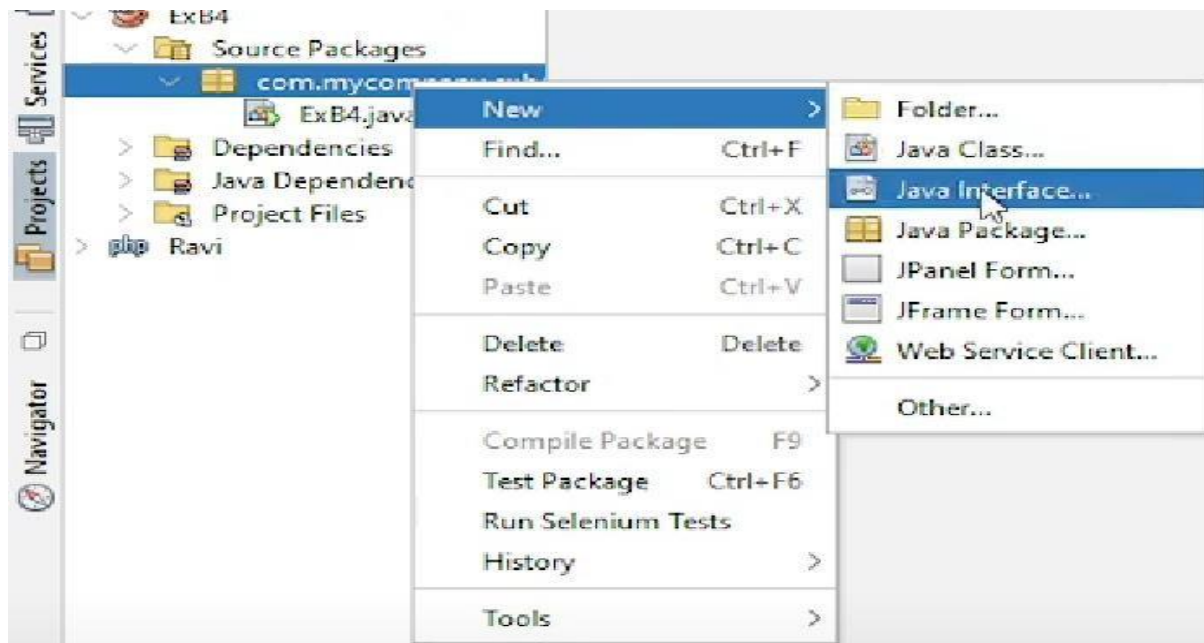
4)Write a Java class called SimpleInterest with methods for calculating simple interest. Have this class as a servant and create a server program and register in the rmiregistry. Write a client program to invoke these remote methods of the servant and do the calculations. Accept inputs at command prompt.

File->New Project -> Java with Maven->Java Application-> Click Next-> Project Name( ExB4) >Project Location(Browse your folder location)-> Finish



Don't write anything in ExB4.java

Then go to Projects->ExB4-> Source Package folder->Inside Source Package, locate package named Com.mycompany.ExB4-> right click ->New-> JavaInterface->ISimpleInterest->Finish



### ISimpleInterest.java

```
package com.mycompany.exb4;
```

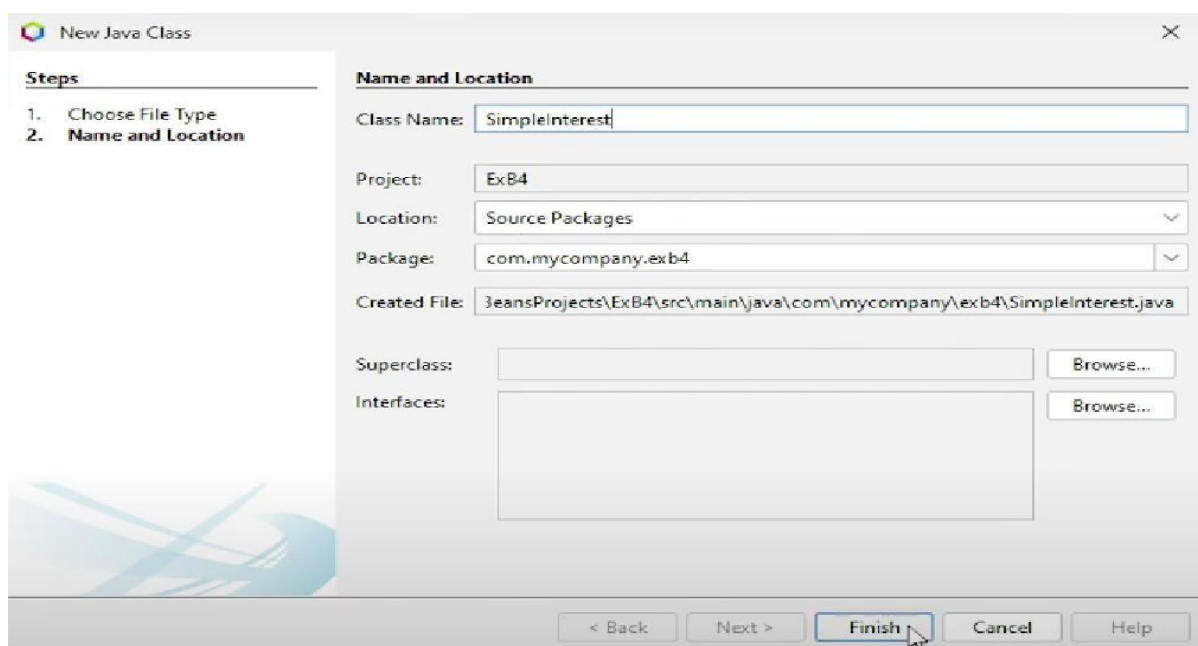
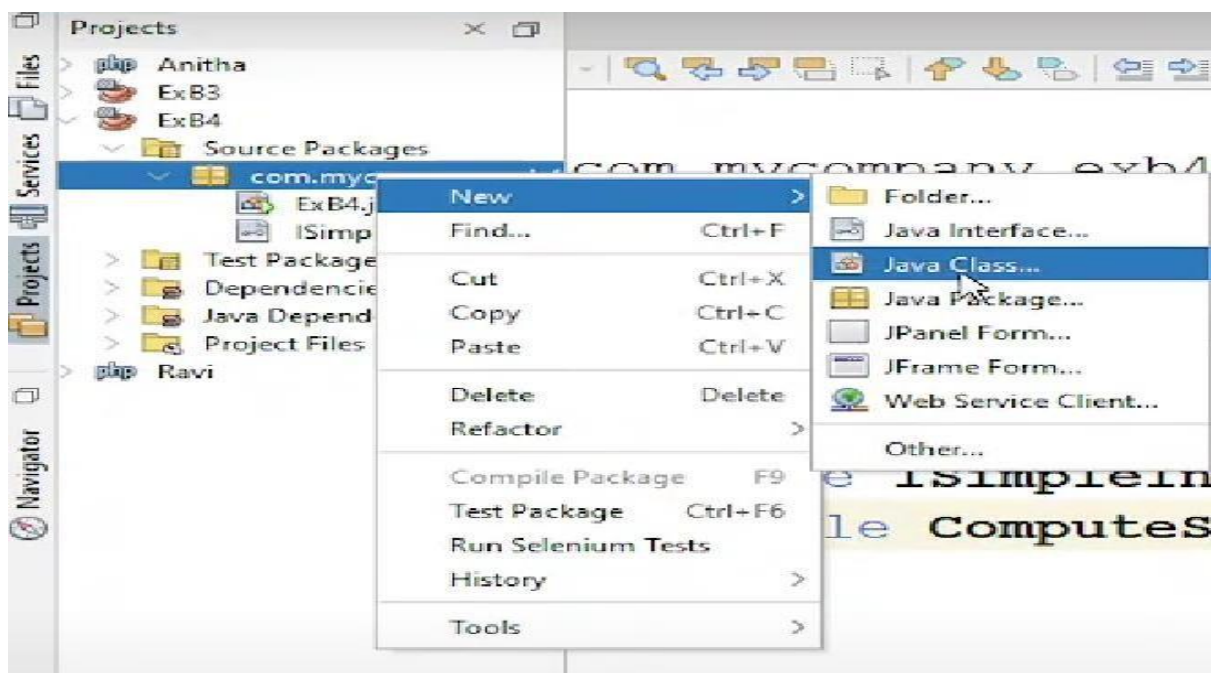
```
import java.rmi.Remote;
```

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

```
public interface ISimpleInterest extends Remote {
```

```
public double ComputeSI(double p,double t,double r)throws RemoteException;  
}
```

Then go to Projects->ExB4-> Source Package folder->Inside Source Package, locate package named Com.mycompany.ExB4 right click ->New-> Java Class -> SimpleInterest -> Finish



### SimpleInterest.java

```
package com.mycompany.exb4;

import java.rmi.RemoteException;

import java.rmi.server.UnicastRemoteObject;

public class SimpleInterest extends UnicastRemoteObject implements
ISimpleInterest {

    public SimpleInterest() throws RemoteException{

        super();

    }

    @Override

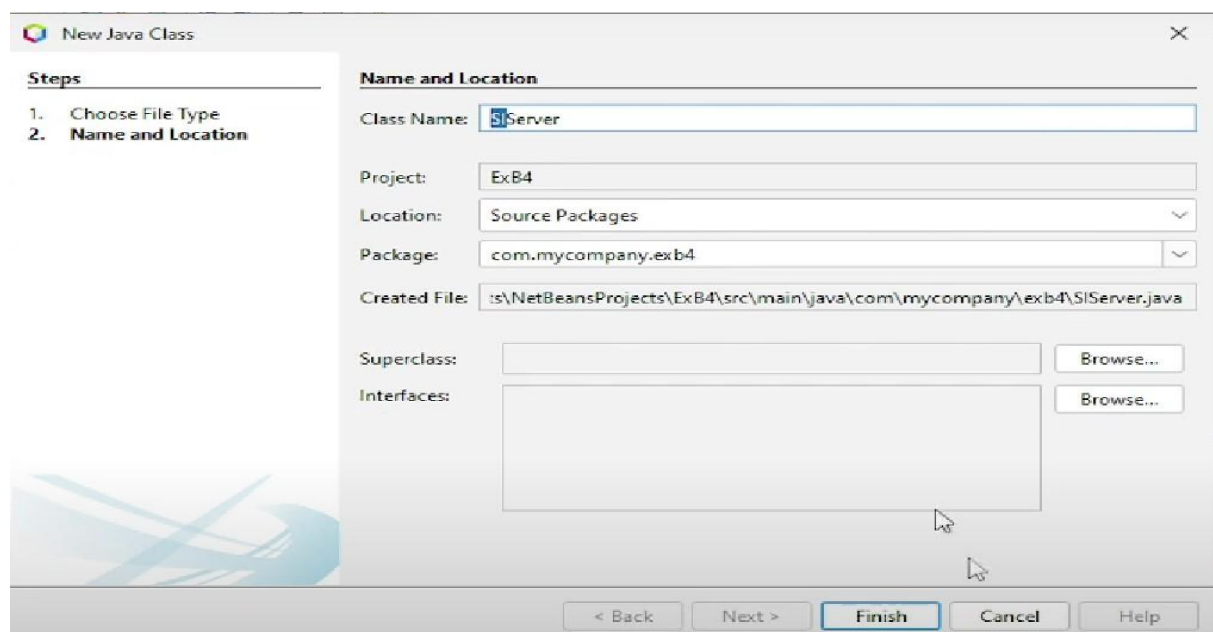
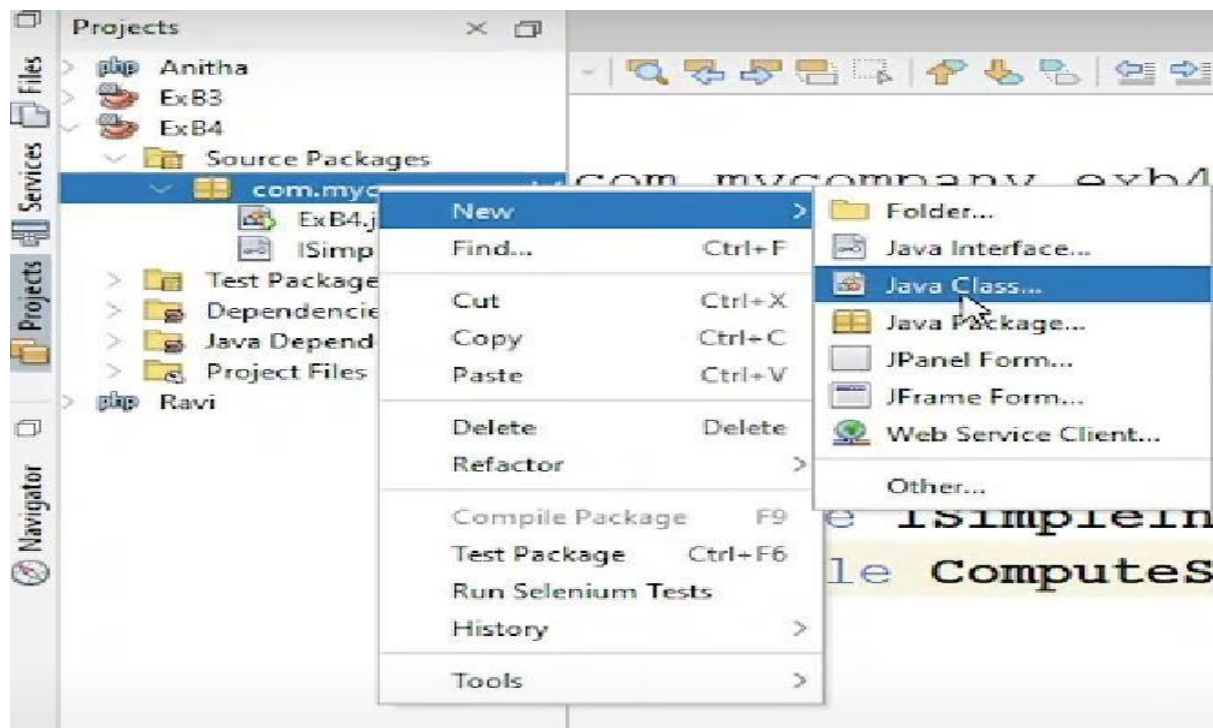
    public double ComputeSI(double p, double t, double r) throws
RemoteException {

        return (p*t*r)/100;

    }

}
```

**Then go to Projects-> ExB4->Souce Package folder->Inside Source Package, locate package named Com.mycompany.ExB4 right click ->New > Java Class ->SIserver -> Finish**



### SServer.java

```
package com.mycompany.exb4;
```

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

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

```

public class SIServer {
    public static void main(String[] args)throws Exception {
        SimpleInterest si=new SimpleInterest();

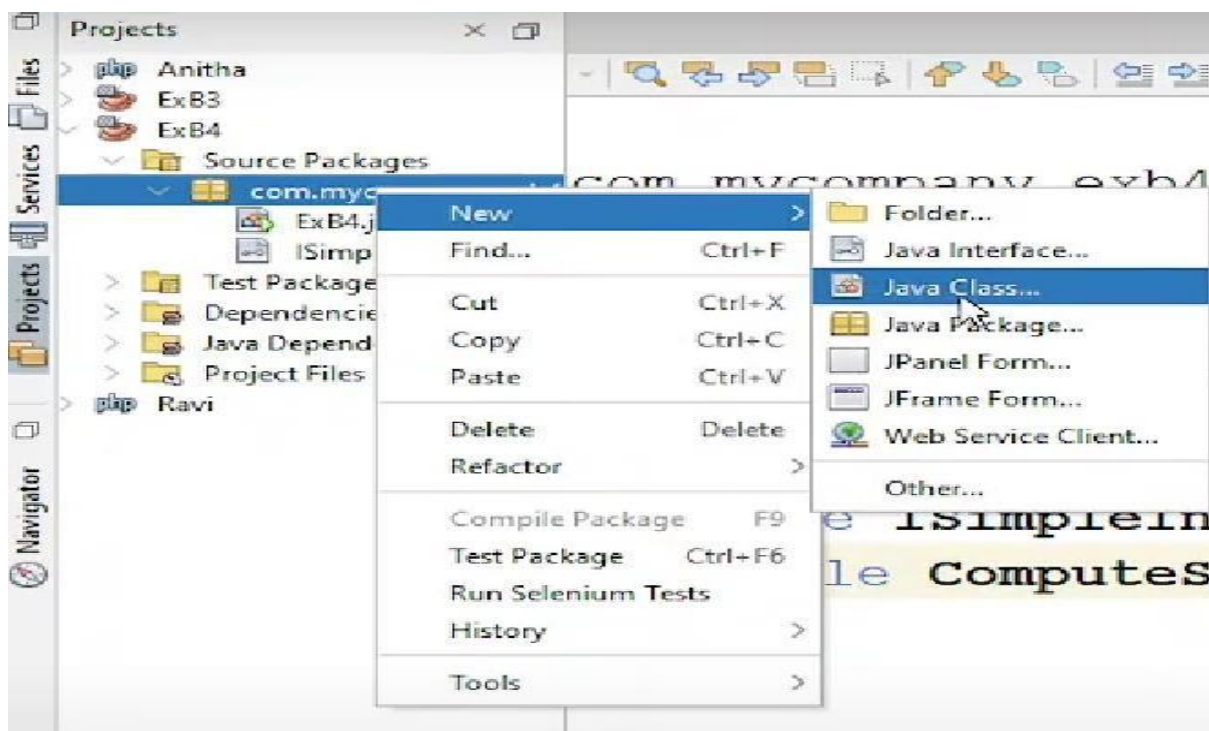
        Registry rg=LocateRegistry.createRegistry(32321);

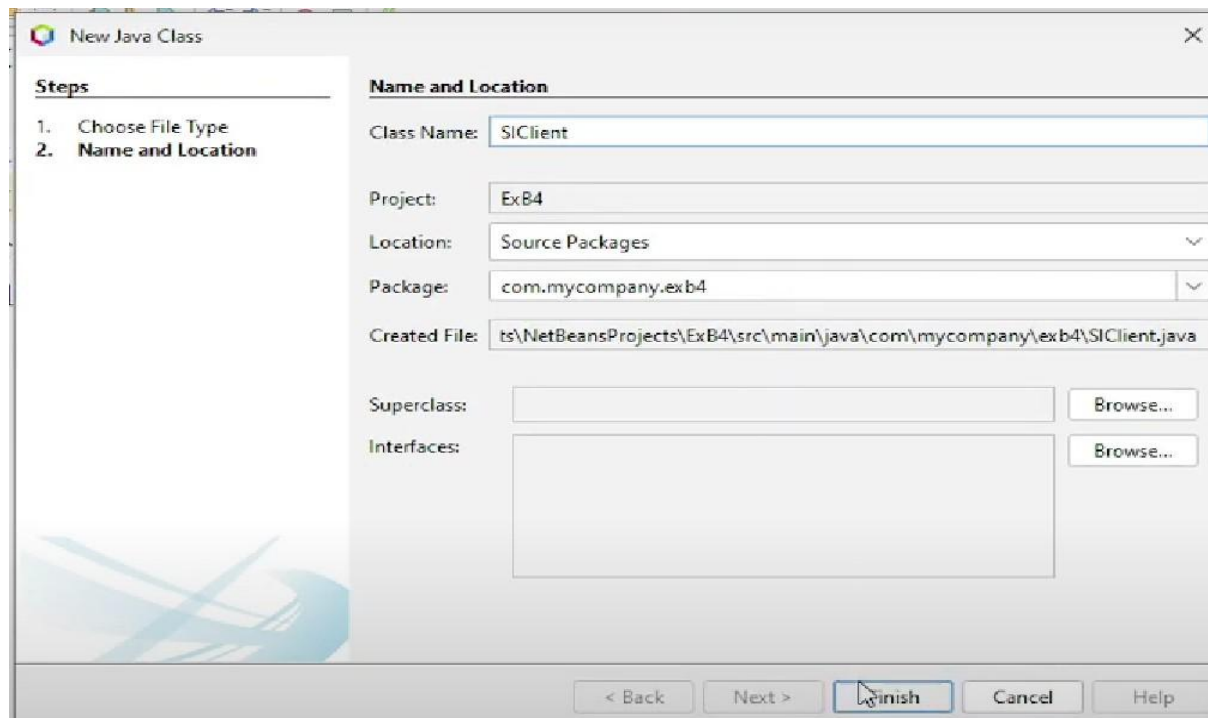
        rg.bind("SimpleInterest",si);

        System.out.println("Server started .....");
    }
}

```

**Then go to Projects-> ExB4->Souce Package folder->Inside Source Package, locate package named Com.mycompany.ExB4 right click ->New > Java Class ->SIClient-> Finish**





### SIClient.java

```
package com.mycompany.exb4;

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

public class SIClient {

    public static void main(String[] args) throws Exception {

        Registry rg=LocateRegistry.getRegistry(32321);
        ISimpleInterest si=(ISimpleInterest) rg.lookup("SimpleInterest");
        Scanner in=new Scanner(System.in);
        double p,t,r;
        System.out.println("-----Simple Interest-----");
        System.out.print("Principle: ");
```



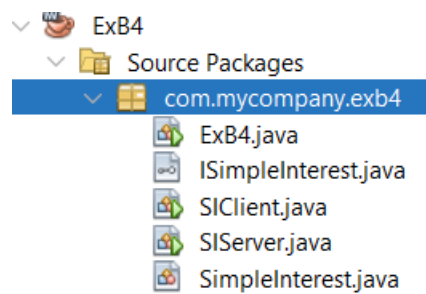
```

        p=in.nextDouble();
        System.out.print("Time: ");
        t=in.nextDouble();
        System.out.print("Rate: ");
        r=in.nextDouble();
        System.out.println("Simple Interest: "+si.ComputeSI(p, t, r));
    }
}

*****

```

Total 5 Files



**To get the output :**

**First run SIServer.java**

Server Started....

**Then run SIClient.java**

```

-----Simple Interest-----
Principal:
1000
Time:
2
Rate:
10
Simple Interest:200.0

```