{··}

Question 6

Write a RMI program to convert dollar to rupees using command line argument.

CurrencyConverter.java:

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

public interface CurrencyConverter extends Remote {
    double convertDollarToRupee(double dollarAmt) throws RemoteException;
}
```

CurrencyConverterImpl.java:

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

public class CurrencyConverterImpl extends UnicastRemoteObject implements CurrencyConverter {

    protected CurrencyConverterImpl() throws RemoteException {
        super();
    }

    public double convertDollarToRupee(double dollarAmt) {
        //Assuming conversion rate of 75 rs per $
        return dollarAmt * 83.0;
    }
}
```

Server.java:

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

public class Server {
    public static void main(String[] args) {
        try {
            CurrencyConverter converter = new CurrencyConverterImpl();

            //create and start the RMI registry on port 1099
            LocateRegistry.createRegistry(1099);

            //bind the remote objects stub in the registry
            Naming.rebind("CurrencyConverterService", converter);

            System.out.println("Server started");
        }
        catch(Exception e)
```

```
        {
            System.err.println("Server exception:" + e.toString());
            e.printStackTrace();
        }
    }
}
```

Client.java:

```java
import java.rmi.Naming;
import java.util.Scanner;

public class Client {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.print("Enter the dollar amount: ");
        double dollarAmt = sc.nextDouble();

        try {
            CurrencyConverter converter = (CurrencyConverter) Naming.lookup("rmi://localhost/CurrencyConverterService");

            double rupeeAmt = converter.convertDollarToRupee(dollarAmt);
            System.out.println(dollarAmt + " dollar is equal to " + rupeeAmt + " rupees.");
        } catch (Exception e) {
            System.err.println("Client exception: " + e.toString());
            e.printStackTrace();
        }
    }
}
```

Output:

Compile all the files, then:

1. **Run *Server* file first:**

2. **Then, open a new tab in the same path where your java files are, then run *Client* file:**