

```
/****** Copyright 2002 The Hartmann Software Group, LLC ******/
```

```
/* Client Side Socket Program */
```

```
import java.io.*;
```

```
import java.net.*;
```

```
public class Client extends Thread
```

```
{
```

```
    private BufferedReader reader;
```

```
    private ObjectOutputStream objectout;
```

```
    private ObjectInputStream objectin;
```

```
    private Socket sock;
```

```
    private String name;
```

```
    private boolean bquit = false;
```

```
    public Client(String n) throws Exception
```

```
    {
```

```
        System.out.print("Enter in the server port or \"quit\" to end the program: ");
```

```
        reader= new BufferedReader(new InputStreamReader(System.in));
```

```
        name = n;
```

```
    }
```

```
/****** Keyboard input information is handled in this method
```

```
******/
```

```
public void KeyBoardInput() throws Exception
{
    String info = reader.readLine();
    int port = 0;

    if(info.equals("quit"))
    {
        System.exit(0);
    }
    else
        port = Integer.parseInt(info);

    sock = new Socket();

    try
    {
        sock.connect(new InetSocketAddress(InetAddress.getLocalHost(),port),2000);
    }
    catch(Exception e)
    {
        System.out.println("Unable to connect to Server");
        return;
    }

    objectout = new ObjectOutputStream(sock.getOutputStream());
```

```
    objectout.writeObject("Name = " + name);
    start();

    while(!bquit)
    {
        String message = reader.readLine();

        if(message.equals("quit"))
        {
            objectout.writeObject(message);
            break;
        }
        else
            objectout.writeObject(message);
    }

    System.out.println("Bye");
}

public static void main(String[] args)
{
    if(args.length == 1)
    {
        try
```

```

        {
            Client c = new Client(args[0]);
            c.KeyboardInput();
        }
    catch(Exception e)
    {
        System.out.println("go");
        e.printStackTrace();
    }
}
else
{
    System.out.println("You must enter a client name i.e. java Client Name");
}
}

```

/***** To maintain a socket connection, each client runs a thread *****/

```

public void run()
{
    try
    {
        objectin = new ObjectInputStream(sock.getInputStream());

        while(true)

```

```

{
    Object ob = objectin.readObject();

    if(ob instanceof String)
    {
        System.out.println("Message Received: " + ob);

        if(((String)ob).equals("quit"))
        {
            objectout.writeObject("quit");
            System.out.println("The Server has unexpectedly shut
down");
            System.out.println("Hit 'Enter' to terminate the
program...");

            bquit = true;
            reader.close();
            break;
        }
        else if(((String)ob).equals("Bye"))
        {
            reader.close();
            System.out.println("Server connection closed");
            break;
        }
    }
    else

```

```
        {  
            objectout.writeObject("You must send String information");  
        }  
    }  
  
    System.out.println("Closed");  
}  
catch(Exception e)  
{  
    e.printStackTrace();  
}  
}  
}
```