AppCS > PrCS> Server

```
import java.net.*;
import java.io.*;
import java.text.SimpleDateFormat;
import java.util.Calendar;

public class Server {

    public static String now(String dateFormat) {
        Calendar cal = Calendar.getInstance();
        SimpleDateFormat sdf = new SimpleDateFormat(dateFormat);
        return sdf.format(cal.getTime());

      }

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

        ServerSocket serverSocket = null;
        System.out.println("1");
        try {
            serverSocket = new ServerSocket(4444);
        } catch (IOException e) {
            System.err.println("Could not listen on port: 4444.");
            System.exit(1);
        }
        System.out.println("2");
        Socket clientSocket = null;
        try {
            clientSocket = serverSocket.accept();
        } catch (IOException e) {
            System.err.println("Accept failed.");
            System.exit(1);
        }
        System.out.println("3");
        PrintWriter out = new PrintWriter(clientSocket.getOutputStream(),
true);
        BufferedReader in = new BufferedReader(new
InputStreamReader(clientSocket.getInputStream()));
        String inputLine, outputLine;

        InetAddress thisIp = InetAddress.getLocalHost();


        System.out.println("Server up.");

        while ((inputLine = in.readLine()) != null) {
            System.out.print("Communicatig ... ");

            outputLine = inputLine + now(" yyyy-MM-dd HH:mm:ss
")+"IP:"+thisIp.getHostAddress();

            out.println(outputLine);
            System.out.println(outputLine);
            if(inputLine.length()==0) break;
        }

        System.out.println("Server down.");
        out.close();
        in.close();
        clientSocket.close();
        serverSocket.close();
    }
}
```

AppCS > PrCS> Client

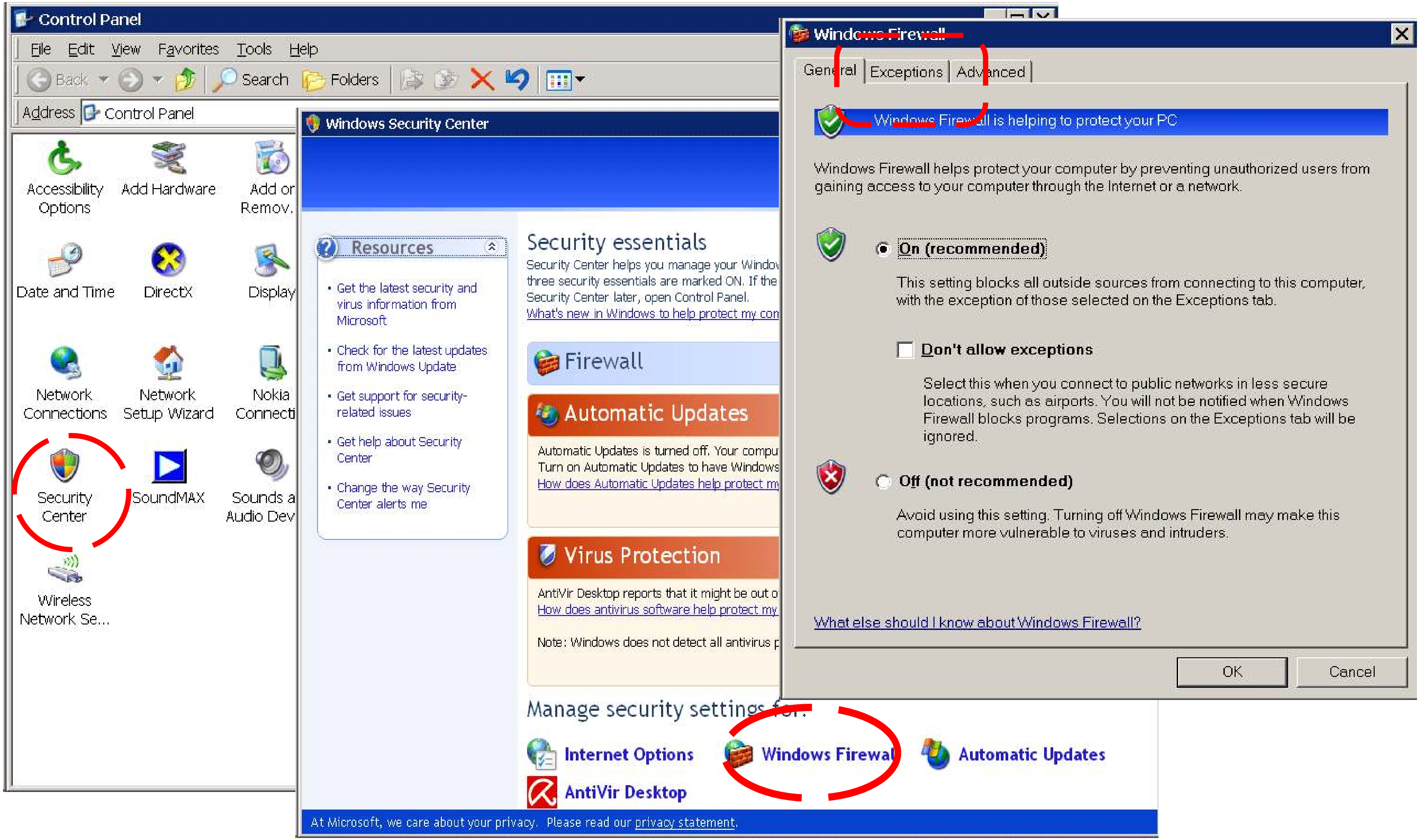
```
import java.io.*;
import java.net.*;

public class Client {
    public static void main(String[] args) throws IOException {

        Socket echoSocket = null;
        PrintWriter out = null;
        BufferedReader in = null;

        try {
            echoSocket = new Socket("localhost", 4444);
            out = new PrintWriter(echoSocket.getOutputStream(), true);
            in = new BufferedReader(new
InputStreamReader(echoSocket.getInputStream()));
        } catch (UnknownHostException e) {
            System.err.println("Don't know about host: localhost");
            System.exit(1);
        } catch (IOException e) {
            System.err.println("Couldn't get I/O for " + "the connection to:
localhost.");
            System.exit(1);
        }

            BufferedReader stdIn = new BufferedReader( new
InputStreamReader(System.in));
            String userInput, serverInput;


            while ((userInput = stdIn.readLine()) != null) {
                out.println(userInput);
            serverInput=in.readLine();
                System.out.println("echo: " + serverInput);
                if(userInput.length()==0) break;
            }

            out.close();
            in.close();
            stdIn.close();
            echoSocket.close();
    }
}
```

AppCS > PrCS> ServerMClient

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

public class ServerMClient {
    public static void main(String[] args) throws IOException {
        ServerSocket serverSocket = null;
        boolean listening = true;
        int i=0;

        try {
            serverSocket = new ServerSocket(4444);
        } catch (IOException e) {
            System.err.println("Could not listen on port: 4444.");
            System.exit(-1);
        }

        System.out.println("Server is up and waiting");

        while (listening) {
            Runnable r=new ServerMThread(serverSocket.accept(),i);
            Thread t = new Thread(r);
            t.start();
            ++i;
        }

        System.out.println("Server is closed.");
        serverSocket.close();
    }
}
```

AppCS > PrCS> ServerMThread

```
import java.net.*;
import java.io.*;
import java.text.SimpleDateFormat;
import java.util.Calendar;

public class ServerMThread extends Thread {
    private Socket clientSocket = null;
    int i;

    public ServerMThread(Socket socket, int contor) {
            super("ServerMThread");
        i=contor;
            this.clientSocket = socket;
    }

    public static String now(String dateFormat) {
        Calendar cal = Calendar.getInstance();
        SimpleDateFormat sdf = new SimpleDateFormat(dateFormat);
        return sdf.format(cal.getTime());

      }

    public void run() {

            try {
                PrintWriter out = new PrintWriter(clientSocket.getOutputStream(),
true);
                BufferedReader in = new BufferedReader(new
InputStreamReader(clientSocket.getInputStream()));
                String inputLine, outputLine;

                InetAddress thisIp = InetAddress.getLocalHost();
                System.out.println("Thread up.");

                while ((inputLine = in.readLine()) != null) {
                    System.out.print("Communicating ... " + i+" -> ");

                    outputLine = inputLine + now(" yyyy-MM-dd HH:mm:ss ")+"
IP:"+thisIp.getHostAddress();

                    out.println(outputLine);
                    System.out.println(outputLine);
                    if(inputLine.length()==0) break;
                }

                out.close();
                in.close();
                clientSocket.close();
                System.out.println("Thread" +i+" is closed.");

            } catch (IOException e) {
                e.printStackTrace();
            }
    }
}
```



Get the latest security and virus information from Microsoft

Check for the latest updates from Windows Update

Get support for security-related issues

Get help about Security Center

Change the way Security Center alerts me

Security essentials

Security Center helps you manage your Windov three security essentials are marked ON. If the Security Center later, open Control Panel.

What's new in Windows to help protect my con

Automatic Updates is turned off. Your compu Turn on Automatic Updates to have Windows

How does Automatic Updates help protect my

AntiVir Desktop reports that it might be out o

How does antivirus software help protect my

Note: Windows does not detect all antivirus p

Manage security settings for:

Internet Options Windows Firewall Automatic Updates

AntiVir Desktop

At Microsoft, we care about your privacy. Please read our privacy statement.

Windows Firewall is helping to protect your PC

Windows Firewall helps protect your computer by preventing unauthorized users from gaining access to your computer through the Internet or a network.

● On (recommended)

This setting blocks all outside sources from connecting to this computer, with the exception of those selected on the Exceptions tab.

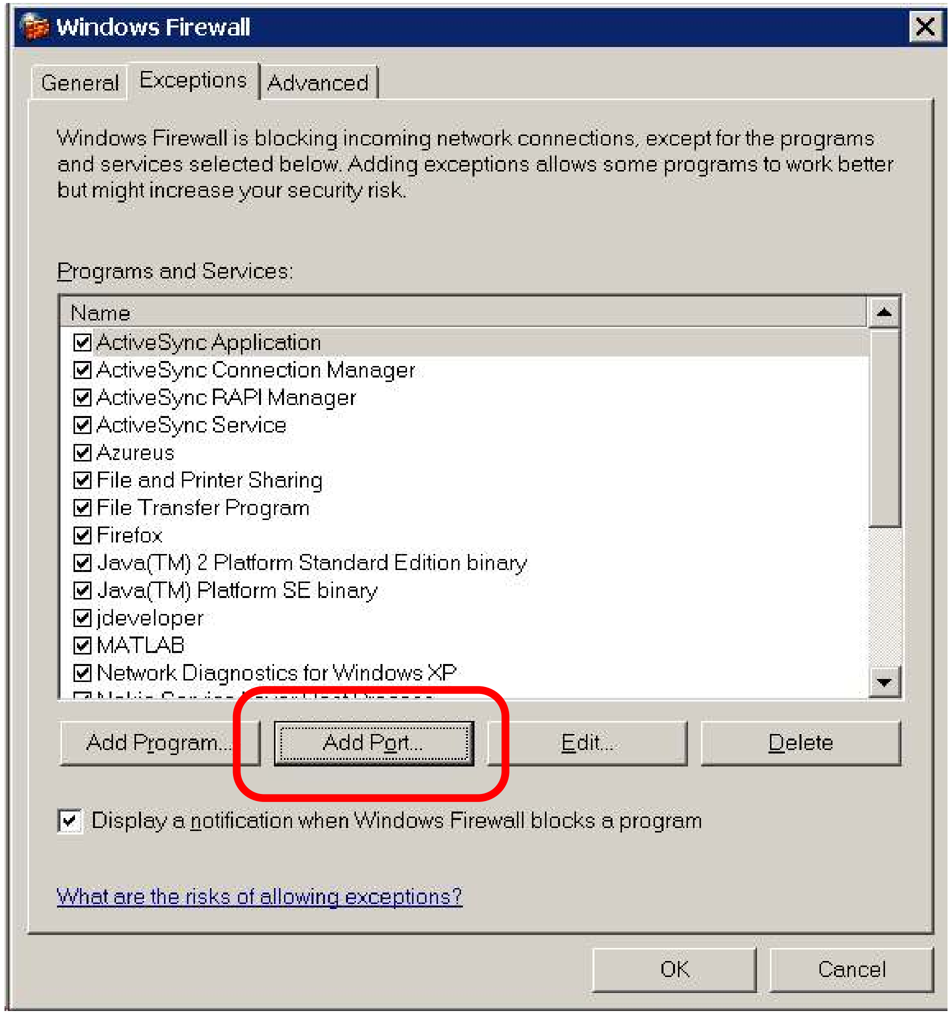
□ Don't allow exceptions

Select this when you connect to public networks in less secure locations, such as airports. You will not be notified when Windows Firewall blocks programs. Selections on the Exceptions tab will be ignored.

○ Off (not recommended)

Avoid using this setting. Turning off Windows Firewall may make this computer more vulnerable to viruses and intruders.

What else should I know about Windows Firewall?



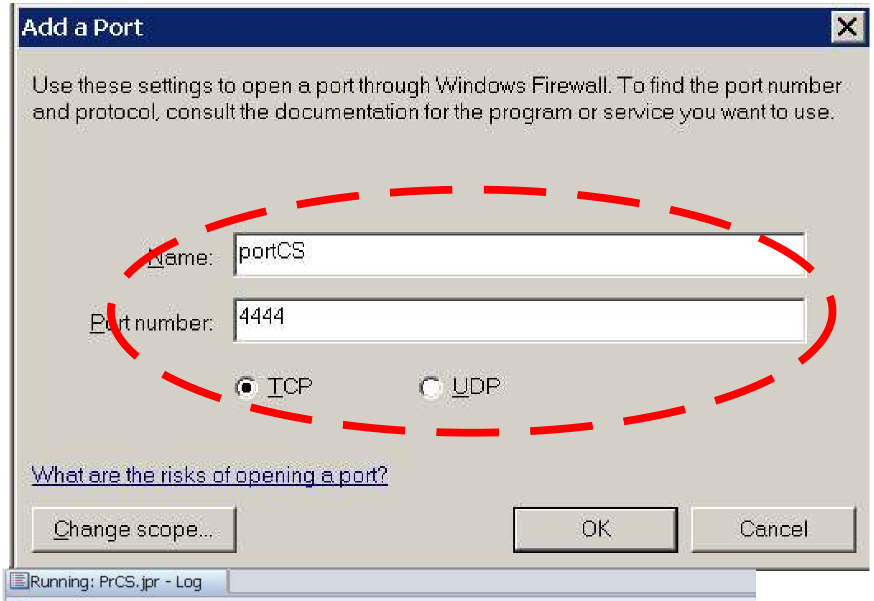
Windows Firewall is blocking incoming network connections, except for the programs and services selected below. Adding exceptions allows some programs to work better but might increase your security risk.

Programs and Services:

☑ ActiveSync Application
☑ ActiveSync Connection Manager
☑ ActiveSync RAPI Manager
☑ ActiveSync Service
☑ Azureus
☑ File and Printer Sharing
☑ File Transfer Program
☑ Firefox
☑ Java(TM) 2 Platform Standard Edition binary
☑ Java(TM) Platform SE binary
☑ jdeveloper
☑ MATLAB
☑ Network Diagnostics for Windows XP

☑ Display a notification when Windows Firewall blocks a program

What are the risks of allowing exceptions?



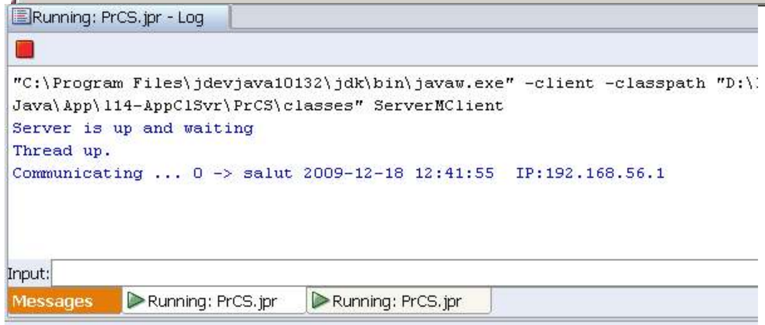
Use these settings to open a port through Windows Firewall. To find the port number and protocol, consult the documentation for the program or service you want to use.

Name: portCS

Port number: 4444

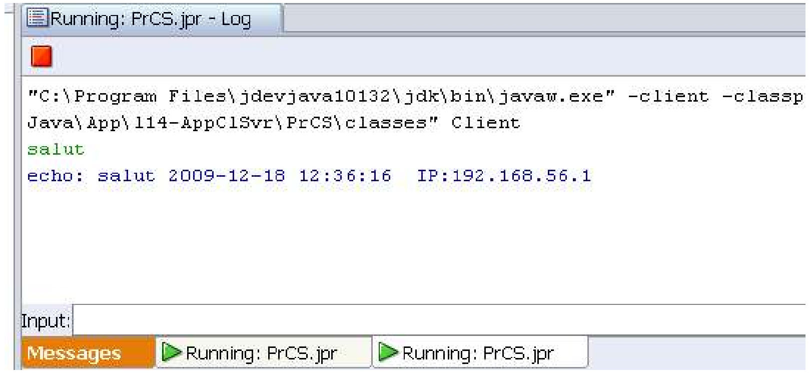
● TCP ○ UDP

What are the risks of opening a port?



```
"C:\Program Files\jdevjava10132\jdk\bin\javaw.exe" -client -classpath "D:\
Java\App\114-AppClSvr\PrCS\classes" ServerMClient
Server is up and waiting
Thread up.
Communicating ... 0 -> salut 2009-12-18 12:41:55  IP:192.168.56.1
```

Input:



```
"C:\Program Files\jdevjava10132\jdk\bin\javaw.exe" -client -classp
Java\App\114-AppClSvr\PrCS\classes" Client
salut
echo: salut 2009-12-18 12:36:16  IP:192.168.56.1
```

Input: