武汉纺织大学

Java应用开发课程设计

**基于Socket的聊天程序**

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**成 绩：**

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[package kcsj; 9](#_Toc19709)

[import java.sql.Connection; 9](#_Toc32281)

[import java.sql.DriverManager; 9](#_Toc22986)

[import java.sql.PreparedStatement; 9](#_Toc21210)

[import java.sql.ResultSet; 9](#_Toc30641)

[import java.sql.SQLException; 9](#_Toc31682)

[import java.util.HashMap; 9](#_Toc28608)

[import java.util.Map; 9](#_Toc19302)

[import keshe.UserInfo; 9](#_Toc10503)

[public class Dao { 9](#_Toc14363)

[static String id; 9](#_Toc26087)

[//内存用户信息数据库 9](#_Toc4764)

[{ 9](#_Toc21669)

[//加载驱动 9](#_Toc14017)

[//com.microsoft.sqlserver.jdbc.SQLServerDriver 9](#_Toc21944)

[//jdbc:sqlserver://127.0.0.1:1433; 9](#_Toc12064)

[try { 9](#_Toc11632)

[Class.forName("com.microsoft.sqlserver.jdbc.SQLServerDriver"); 9](#_Toc19091)

[} catch (ClassNotFoundException e) { 9](#_Toc17382)

[// TODO Auto-generated catch block 9](#_Toc23275)

[e.printStackTrace(); 9](#_Toc27986)

[} 9](#_Toc20070)

[Connection con = null; 9](#_Toc17984)

[try { 9](#_Toc8604)

[con = DriverManager.getConnection("jdbc:sqlserver://127.0.0.1:1433;databaseName=User", "sa", "wang2000"); 9](#_Toc19003)

[} catch (SQLException e) { 10](#_Toc22011)

[// TODO Auto-generated catch block 10](#_Toc16602)

[e.printStackTrace(); 10](#_Toc14607)

[} 10](#_Toc15461)

[PreparedStatement ps = null; 10](#_Toc27438)

[try { 10](#_Toc32359)

[ps = con.prepareStatement("select \* from User"); 10](#_Toc18481)

[} catch (SQLException e) { 10](#_Toc31197)

[// TODO Auto-generated catch block 10](#_Toc11119)

[e.printStackTrace(); 10](#_Toc10218)

[} 10](#_Toc4115)

[try { 10](#_Toc19263)

[ResultSet rs = ps.executeQuery(); 10](#_Toc22902)

[id=rs.getString("id"); 10](#_Toc24462)

[} catch (SQLException e) { 10](#_Toc11069)

[// TODO Auto-generated catch block 10](#_Toc7616)

[e.printStackTrace(); 10](#_Toc14131)

[} 10](#_Toc721)

[} 10](#_Toc22340)

[public static boolean checkLogin(UserInfo user) { 10](#_Toc30322)

[if(user.getId()==id) { 10](#_Toc15364)

[return true; 10](#_Toc22504)

[} 10](#_Toc31903)

[System.out.println(user.getId()+"验证失败！"); 10](#_Toc10948)

[return false; 10](#_Toc31531)

[} 10](#_Toc10847)

[} 10](#_Toc26806)

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# 1 需求分析

基于Socket编写一个简单聊天程序，客户端依次输入用户名和密码，服务器基于数据库对用户名和密码进行验证，将验证结果返回给客户端，客户端程序收到服务器返回信息后显示“欢迎\*\*\*\*\*[登陆用户的中文名]进入聊天室！”或“进入聊天室失败!失败原因是：\*\*\*\*\*\*\*[用户名不正确，密码错误，服务器错误等]”，客户端输入聊天内容，发送给服务器端，服务器程序收到聊天内容后给出回复发送给客户端，服务器端收到客户端的聊天内容后如果在30s内没有回复，服务器会启动机器人自动回复（例如调用青云客智能聊天机器人API <http://api.qingyunke.com/>，图灵机器人API <http://www.turingapi.com/）。客户端收到回复后进行显示。其中一方输入bye结束聊天。聊天室还可以实现简单的文件发送功能，一方输入send> \*\*\*\*\*\*（文件的本地存放路径，如e:/教学/java.pdf）可以将文件发送给另一方。

## 1.1用户登陆

当程序运行时，显示“欢迎使用\*\*\*\*聊天系统，请登陆”，提示用户依次输入用户名及其密码，当用户名及密码不正确时，显示提示信息“用户名或密码不正确，请重新输入”，**用户最多可以尝试3次，若输入3次均不正确，则给出提示信息“最多只能尝试3次”**，退出系统；

## 1.2主菜单

当用户名及密码正确时，进入聊天系统功能界面，如下：

===\*\*\*\*超市收银系统===

1. 聊天
2. 发送文件
3. 退出

## 1.3各项功能

### 1.3.1 聊天

客户端输入聊天内容，发送给服务器端，服务器程序收到聊天内容后给出回复发送给客户端，服务器端收到客户端的聊天内容后如果在30s内没有回复，服务器会启动机器人自动回复（例如调用青云客智能聊天机器人API <http://api.qingyunke.com/>，图灵机器人API [http://www.turingapi.com/）。客户端收到回复后进行显示。](http://www.turingapi.com/）。客户端收到回复后进行显示。其中一方输入bye结束聊天。聊天室还可以实现简单的文件发送功能，一方输入send)

### 1.3.2 发送文件

聊天室还可以实现简单的文件发送功能，一方输入 send\*\*\*\*\*\*（文件的本地存放路径，如e:/教学/java.pdf）可以将文件发送给另一方。

### 1.3.3 退出

### 其中一方输入bye结束聊天。聊

# **2 系统设计**

## 2.1用户用例图

系统分为用户，管理员两个角色，各角色的用户用例如下图2-1所示：

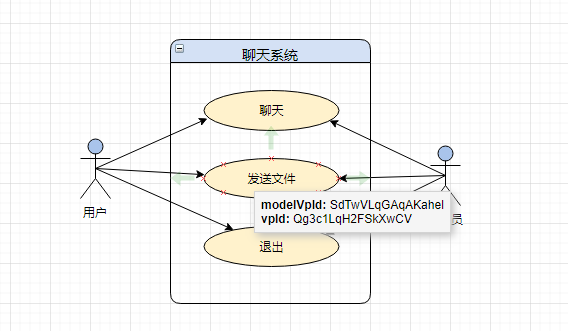
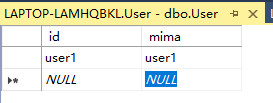


图2-1 用户用例图

## 2.2 ER图

数据库设计1张表，用户表对应的ER图如图3-1所示。

%3CmxGraphModel%3E%3Croot%3E%3CmxCell%20id%3D%220%22%2F%3E%3CmxCell%20id%3D%221%22%20parent%3D%220%22%2F%3E%3Cmysql.table%20entity.table.tableName%3D%22uses%22%20label%3D%22uses%22%20id%3D%222%22%3E%3CmxCell%20style%3D%22swimlane%3BfontStyle%3D0%3BchildLayout%3DstackLayout%3Bhorizontal%3D1%3Bhtml%3D1%3BstartSize%3D26%3BfillColor%3D%23b0e3e6%3BhorizontalStack%3D0%3BresizeParent%3D1%3BresizeParentMax%3D0%3BresizeLast%3D0%3Bcollapsible%3D1%3BmarginBottom%3D0%3BswimlaneFillColor%3D%23ffffff%3Balign%3Dcenter%3BfontSize%3D13%3BstrokeColor%3D%230e8088%3Brounded%3D0%3Bshadow%3D1%3Bcomic%3D0%3Bglass%3D0%3BgradientDirection%3Dsouth%3BgradientColor%3D%23ffffff%3B%22%20vertex%3D%221%22%20connectable%3D%220%22%20parent%3D%221%22%3E%3CmxGeometry%20x%3D%2260%22%20y%3D%2250%22%20width%3D%22310%22%20height%3D%22130%22%20as%3D%22geometry%22%2F%3E%3C%2FmxCell%3E%3C%2Fmysql.table%3E%3Cmysql.column%20entity.column.tableName%3D%22uses%22%20entity.column.name%3D%22userName%22%20entity.column.dataType%3D%22VARCHAR%22%20entity.column.PK%3D%22true%22%20label%3D%22%26lt%3Bimg%20title%3D%26quot%3BPrimary%20Key%26quot%3B%20src%3D%26quot%3Bimg%2Fdb%2Fkey1.png%26quot%3B%20width%3D%26quot%3B16%26quot%3B%20height%3D%26quot%3B16%26quot%3B%20align%3D%26quot%3Btop%26quot%3B%26gt%3B%26amp%3Bnbsp%3B%26lt%3Bfont%20size%3D%26quot%3B1%26quot%3B%20face%3D%26quot%3BTahoma%26quot%3B%26gt%3B%26lt%3Bspan%20style%3D%26quot%3Bfont-size%3A%2013px%26quot%3B%26gt%3B%26lt%3Bb%26gt%3Bid%20int%20primary%20key%26lt%3B%2Fb%26gt%3B%26lt%3B%2Fspan%26gt%3B%26lt%3B%2Ffont%26gt%3B%22%20entity.column.oldName%3D%22id%22%20entity.column.datalen%3D%2220%22%20entity.column.decimals%3D%22%22%20entity.column.autoIncreament%3D%22%22%20entity.column.unsigned%3D%22%22%20entity.column.bin%3D%22%22%20entity.column.ascii%3D%22%22%20entity.column.unicode%3D%22%22%20entity.column.unique%3D%22%22%20entity.column.isNotNull%3D%22NOT%20NULL%22%20entity.column.defaultValue%3D%22%22%20entity.column.comment%3D%22%22%20entity.column.enum%3D%22%22%20entity.column.set%3D%22%22%20entity.column.enumSetValue%3D%22%22%20id%3D%223%22%3E%3CmxCell%20style%3D%22text%3Bhtml%3D1%3BstrokeColor%3Dnone%3BfillColor%3Dnone%3BspacingLeft%3D4%3BspacingRight%3D4%3Boverflow%3Dhidden%3Brotatable%3D0%3BportConstraint%3Deastwest%3BfontSize%3D12%3BverticalAlign%3Dmiddle%3B%22%20vertex%3D%221%22%20parent%3D%222%22%3E%3CmxGeometry%20y%3D%2226%22%20width%3D%22310%22%20height%3D%2226%22%20as%3D%22geometry%22%2F%3E%3C%2FmxCell%3E%3C%2Fmysql.column%3E%3Cmysql.column%20entity.column.tableName%3D%22uses%22%20entity.column.name%3D%22chrName%22%20entity.column.datalen%3D%2220%22%20entity.column.dataType%3D%22VARCHAR%22%20label%3D%22%26lt%3Bimg%20title%3D%26quot%3BPrimary%20Key%26quot%3B%20src%3D%26quot%3Bimages%2Fspacer.gif%26quot%3B%20width%3D%26quot%3B16%26quot%3B%20height%3D%26quot%3B16%26quot%3B%20align%3D%26quot%3Btop%26quot%3B%26gt%3B%26amp%3Bnbsp%3B%26lt%3Bfont%20size%3D%26quot%3B1%26quot%3B%20face%3D%26quot%3BTahoma%26quot%3B%26gt%3B%26lt%3Bspan%20style%3D%26quot%3Bfont-size%3A%2013px%26quot%3B%26gt%3B%26lt%3Bb%26gt%3Bname%20varchar(10)%26lt%3B%2Fb%26gt%3B%26lt%3B%2Fspan%26gt%3B%26lt%3B%2Ffont%26gt%3B%22%20entity.column.oldName%3D%22name%22%20entity.column.decimals%3D%22%22%20entity.column.autoIncreament%3D%22%22%20entity.column.unsigned%3D%22%22%20entity.column.bin%3D%22%22%20entity.column.ascii%3D%22%22%20entity.column.unicode%3D%22%22%20entity.column.PK%3D%22false%22%20entity.column.unique%3D%22%22%20entity.column.isNotNull%3D%22%22%20entity.column.defaultValue%3D%22%22%20entity.column.comment%3D%22%22%20entity.column.enum%3D%22%22%20entity.column.set%3D%22%22%20entity.column.enumSetValue%3D%22%22%20id%3D%224%22%3E%3CmxCell%20style%3D%22text%3Bhtml%3D1%3BstrokeColor%3Dnone%3BfillColor%3Dnone%3BspacingLeft%3D4%3BspacingRight%3D4%3Boverflow%3Dhidden%3Brotatable%3D0%3BportConstraint%3Deastwest%3BfontSize%3D12%3BverticalAlign%3Dmiddle%3B%22%20vertex%3D%221%22%20parent%3D%222%22%3E%3CmxGeometry%20y%3D%2252%22%20width%3D%22310%22%20height%3D%2226%22%20as%3D%22geometry%22%2F%3E%3C%2FmxCell%3E%3C%2Fmysql.column%3E%3Cmysql.column%20entity.column.tableName%3D%22uses%22%20entity.column.name%3D%22password%22%20entity.column.datalen%3D%2250%22%20entity.column.dataType%3D%22VARCHAR%22%20label%3D%22%26lt%3Bimg%20title%3D%26quot%3BPrimary%20Key%26quot%3B%20src%3D%26quot%3Bimages%2Fspacer.gif%26quot%3B%20width%3D%26quot%3B16%26quot%3B%20height%3D%26quot%3B16%26quot%3B%20align%3D%26quot%3Btop%26quot%3B%26gt%3B%26amp%3Bnbsp%3B%26lt%3Bfont%20size%3D%26quot%3B1%26quot%3B%20face%3D%26quot%3BTahoma%26quot%3B%26gt%3B%26lt%3Bspan%20style%3D%26quot%3Bfont-size%3A%2013px%26quot%3B%26gt%3B%26lt%3Bb%26gt%3Bname%20varchar(10)%26lt%3B%2Fb%26gt%3B%26lt%3B%2Fspan%26gt%3B%26lt%3B%2Ffont%26gt%3B%22%20entity.column.oldName%3D%22chrName%22%20entity.column.decimals%3D%22%22%20entity.column.autoIncreament%3D%22%22%20entity.column.unsigned%3D%22%22%20entity.column.bin%3D%22%22%20entity.column.ascii%3D%22%22%20entity.column.unicode%3D%22%22%20entity.col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ty.column.datalen%3D%22%22%20entity.column.dataType%3D%22DATETIME%22%20label%3D%22%26lt%3Bimg%20title%3D%26quot%3BPrimary%20Key%26quot%3B%20src%3D%26quot%3Bimages%2Fspacer.gif%26quot%3B%20width%3D%26quot%3B16%26quot%3B%20height%3D%26quot%3B16%26quot%3B%20align%3D%26quot%3Btop%26quot%3B%26gt%3B%26amp%3Bnbsp%3B%26lt%3Bfont%20size%3D%26quot%3B1%26quot%3B%20face%3D%26quot%3BTahoma%26quot%3B%26gt%3B%26lt%3Bspan%20style%3D%26quot%3Bfont-size%3A%2013px%26quot%3B%26gt%3B%26lt%3Bb%26gt%3Bname%20varchar(10)%26lt%3B%2Fb%26gt%3B%26lt%3B%2Fspan%26gt%3B%26lt%3B%2Ffont%26gt%3B%22%20entity.column.oldName%3D%22count%22%20entity.column.decimals%3D%22%22%20entity.column.autoIncreament%3D%22%22%20entity.column.unsigned%3D%22%22%20entity.column.bin%3D%22%22%20entity.column.ascii%3D%22%22%20entity.column.unicode%3D%22%22%20entity.column.PK%3D%22false%22%20entity.column.unique%3D%22%22%20entity.column.isNotNull%3D%22%22%20entity.column.defaultValue%3D%22%22%20entity.column.comment%3D%22%22%20entity.column.enum%3D%22%22%20entity.column.set%3D%22%22%20entity.column.enumSetValue%3D%22%22%20id%3D%2219%22%3E%3CmxCell%20style%3D%22text%3Bhtml%3D1%3BstrokeColor%3Dnone%3BfillColor%3Dnone%3BspacingLeft%3D4%3BspacingRight%3D4%3Boverflow%3Dhidden%3Brotatable%3D0%3BportConstraint%3Deastwest%3BfontSize%3D12%3BverticalAlign%3Dmiddle%3B%22%20vertex%3D%221%22%20parent%3D%2212%22%3E%3CmxGeometry%20y%3D%22182%22%20width%3D%22280%22%20height%3D%2226%22%20as%3D%22geometry%22%2F%3E%3C%2FmxCell%3E%3C%2Fmysql.column%3E%3CmxCell%20id%3D%2220%22%20value%3D%221..n%22%20style%3D%22edgeStyle%3DentityRelationEdgeStyle%3BfontSize%3D12%3Bhtml%3D1%3BendArrow%3DERoneToMany%3BstrokeWidth%3D2%3BstrokeColor%3D%236c8ebf%3BexitX%3D1%3BexitY%3D0.25%3BentryX%3D0%3BentryY%3D0.5%3B%22%20edge%3D%221%22%20source%3D%224%22%20target%3D%2214%22%20parent%3D%221%22%3E%3CmxGeometry%20relative%3D%221%22%20as%3D%22geometry%22%2F%3E%3C%2FmxCell%3E%3CmxCell%20id%3D%2221%22%20value%3D%221..n%22%20style%3D%22edgeStyle%3DentityRelationEdgeStyle%3BfontSize%3D12%3Bhtml%3D1%3BendArrow%3DERoneToMany%3BstrokeWidth%3D2%3BstrokeColor%3D%236c8ebf%3BexitX%3D1%3BexitY%3D0.5%3BentryX%3D0%3BentryY%3D0.5%3B%22%20edge%3D%221%22%20source%3D%228%22%20target%3D%2216%22%20parent%3D%221%22%3E%3CmxGeometry%20relative%3D%221%22%20as%3D%22geometry%22%2F%3E%3C%2FmxCell%3E%3C%2Froot%3E%3C%2FmxGraphModel%3E



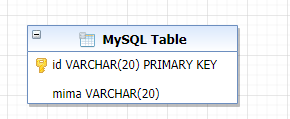


图3-1 数据库ER图

## 2.3 UML类图（Class Diagram）

对于用户功能模块，共设计如下6个类。

* 数据库连接类DatabaseConnection：连接数据库并获取连接对象，关闭连接对象。
* VO实体类User：与数据库结构进行映射的类。主要由属性，setter, getter方法组成，VO类中的属性与表中的字段相对应，每一个VO类的对象都表示表中的每一条记录
* DAO接口IUserDAO：主要定义操作的接口，定义一系列数据库的原子性操作，例如增删改查（通常称为CRUD）等。
* DAO实现类UserDAOImpl：DAO接口的真实实现类，主要完成具体数据库操作，但不负责数据库的打开和关闭。
* DAO工厂类DAOFactory：通过工厂类取得一个DAO的实例化对象
* 业务逻辑实现类UserService：对于数据层的原子操作进行整合。还要负责数据库的打开与关闭（不管是否出异常，数据库都要关闭）
* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*：

各类的结构及类之间的关系如图2-5所示：

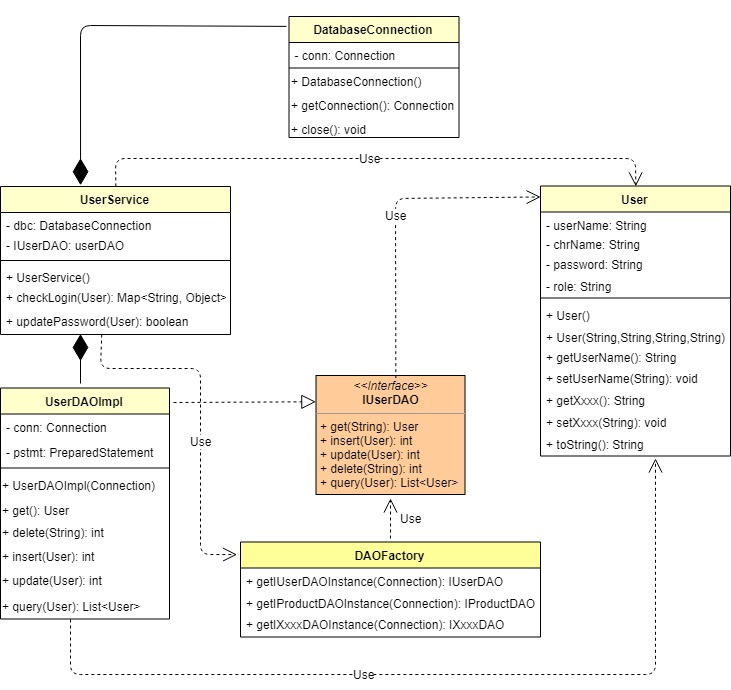
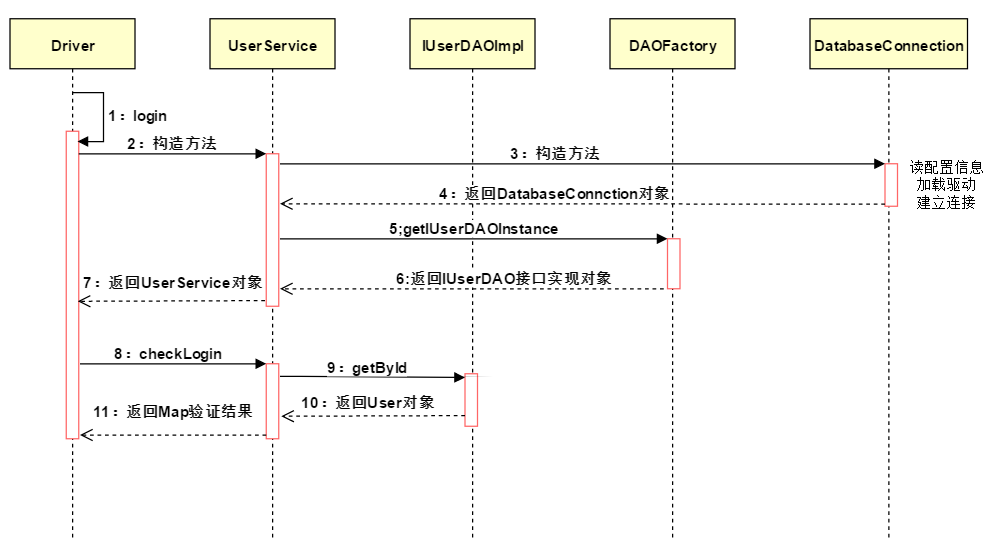


图2-5 用户功能类图

## 2.4 UML时序图（Sequence Diagram）

### 2.4.1 系统登录



### 2.4.2 \*\*\*\*\*\*模块

每个功能按编号往后递增绘图

### 2.4.3 \*\*\*\*\*\*模块

每个功能按编号往后递增绘图

## 2.5 UML活动图（Activity Diagram）

### 2.5.1 登陆

登录操作需要验证用户名，密码，只有当用户名和密码同时存在即用户存在的情况下才能成功登录系统，否则会提示错误信息，具体流程如图2-6所示。

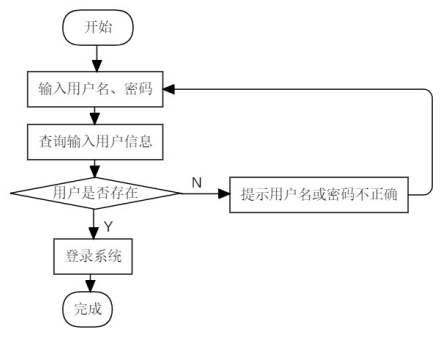


图2-2 登录流程图

### 2.5.1 聊天，发送

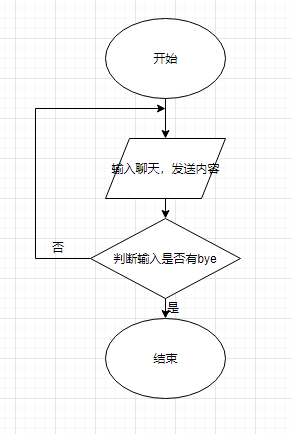
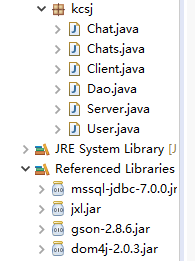


图2-5 聊天，发送功能活动图

# **3 系统实现**

## 3.1 项目结构



## 3.2 配置文件

### 3.2.1 jdbc.properties文件

该配置文件主要是以文件形式保存数据库的驱动类名称，连接数据库的URL地址，访问数据库的用户名及对应的密码，程序运行时会读取该文件相关信息，避免硬编码，当相关信息发生变化时，只需修改配置文件而不用修改源代码，增加程序的可扩展型。

//加载驱动

//com.microsoft.sqlserver.jdbc.SQLServerDriver

//jdbc:sqlserver://127.0.0.1:1433;

**try** {

Class.*forName*("com.microsoft.sqlserver.jdbc.SQLServerDriver");

} **catch** (ClassNotFoundException e) {

// **TODO** Auto-generated catch block

e.printStackTrace();

}

Connection con = **null**;

**try** {

con = DriverManager.*getConnection*("jdbc:sqlserver://127.0.0.1:1433;databaseName=User", "sa", "wang2000");

} **catch** (SQLException e) {

// **TODO** Auto-generated catch block

e.printStackTrace();

}

PreparedStatement ps = **null**;

**try** {

ps = con.prepareStatement("select \* from User");

} **catch** (SQLException e) {

// **TODO** Auto-generated catch block

e.printStackTrace();

}

**try** {

ResultSet rs = ps.executeQuery();

*id*=rs.getString("id");

} **catch** (SQLException e) {

// **TODO** Auto-generated catch block

e.printStackTrace();

### }

### 3.2.2 java.net文件

用来调用智能聊天机器人

String getURL="http://www.turingapi.com/";

URL getUrl=**new** URL(getURL);

HttpURLConnection connection = (HttpURLConnection) getUrl.openConnection();

connection.connect();

### 3.2.3 java.IO文件

字节流  
InputStream、OutputStream 输入、输出字节流抽象类  
具体地，字节流可分为输入流、输出流两种。对于输入字节流而言，其在抽象类InputStream中提供、定义了一组通用的操作方法，以供其子类来继承、实现。我们在了解这些方法的功用之后，就可以知道如何来操作其下具体的实现类

对于输出字节流而言。其同样在抽象类OutputStream中提供、定义了一组通用的操作方法，以供其子类来继承、实现。我们在了解这些方法的功用之后，就可以知道如何来操作其下具体的实现类

**import** java.io.BufferedReader;

**import** java.io.IOException;

**import** java.io.InputStream;

**import** java.io.InputStreamReader;

**import** java.io.OutputStream;

## 3.3 VO类User.java

用户实体

**package** kcsj;

**public** **class** User{

**private** String Id;//用户名

**private** String Mima;//密码

**public** User(String id, String mima) {

**super**();

Id = id;

Mima = mima;

}

**public** User() {

// **TODO** Auto-generated constructor stub

}

**public** String getId() {

**return** Id;

}

**public** **void** setId(String id) {

Id = id;

}

**public** String getMima() {

**return** Mima;

}

**public** **void** setMima(String mima) {

Mima = mima;

}

@Override

**public** String toString() {

**return** "User [Id=" + Id + ", Mima=" + Mima + "]";

}

}

## 3.4 DAO.java

掉用数据库

## package kcsj;

## import java.sql.Connection;

## import java.sql.DriverManager;

## import java.sql.PreparedStatement;

## import java.sql.ResultSet;

## import java.sql.SQLException;

## import java.util.HashMap;

## import java.util.Map;

## import keshe.UserInfo;

## public class Dao {

## static String id;

## //内存用户信息数据库

## {

## //加载驱动

## //com.microsoft.sqlserver.jdbc.SQLServerDriver

## //jdbc:sqlserver://127.0.0.1:1433;

## try {

## Class.forName("com.microsoft.sqlserver.jdbc.SQLServerDriver");

## } catch (ClassNotFoundException e) {

## // TODO Auto-generated catch block

## e.printStackTrace();

## }

## Connection con = null;

## try {

## con = DriverManager.getConnection("jdbc:sqlserver://127.0.0.1:1433;databaseName=User", "sa", "wang2000");

## } catch (SQLException e) {

## // TODO Auto-generated catch block

## e.printStackTrace();

## }

## PreparedStatement ps = null;

## try {

## ps = con.prepareStatement("select \* from User");

## } catch (SQLException e) {

## // TODO Auto-generated catch block

## e.printStackTrace();

## }

## try {

## ResultSet rs = ps.executeQuery();

## id=rs.getString("id");

## } catch (SQLException e) {

## // TODO Auto-generated catch block

## e.printStackTrace();

## }

## }

## public static boolean checkLogin(UserInfo user) {

## if(user.getId()==id) {

## return true;

## }

## System.out.println(user.getId()+"验证失败！");

## return false;

## }

## }

## 3.5 Service.java，Chats.Java，Client.Java

对输入数据进行处理

package kcsj;

import java.io.IOException;

import java.net.ServerSocket;

import java.net.Socket;

public class Chats {

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

Chats cs=new Chats();

cs.setUpServer(8572);

}

private void setUpServer(int port) throws Exception {

ServerSocket server=new ServerSocket(port);

while(true) {

Socket socket=server.accept();

Server st=new Server(socket);

st.start();

}

}

}

**package** kcsj;

**import** java.io.BufferedReader;

**import** java.io.IOException;

**import** java.io.InputStream;

**import** java.io.InputStreamReader;

**import** java.io.OutputStream;

**import** java.net.Socket;

**public** **class** Server **extends** Thread{

**private** Socket cl;

**private** OutputStream ous;

**private** User user;

**public** Server(Socket cl) {

**this**.cl=cl;

}

**public** User getOwerUser() {

**return** **this**.user;

}

**public** **void** run() {

**try** {

Socket();

} **catch** (Exception e) {

// **TODO** Auto-generated catch block

e.printStackTrace();

}

}

**public** **void** Msg(String msg) **throws** Exception {

msg+="\r\n";

ous.write(msg.getBytes());

ous.flush();

}

**private** **void** Socket() **throws** Exception {

// **TODO** Auto-generated method stub

InputStream ins=cl.getInputStream();

ous=cl.getOutputStream();

BufferedReader brd=**new** BufferedReader(**new** InputStreamReader(ins));

**int** count = 0;

**while** (count <= 2) {

Msg("欢迎使用聊天系统，请输入你的用户名：");

String id=brd.readLine();

Msg("请输入密码：");

String pwd=brd.readLine();

user=**new** User();

user.setId(id);

user.setMima(pwd);

//调用数据库，验证用户是否存在

**boolean** loginState=Dao.*checkLogin*(user);

**if**(!loginState) {

//如果不存在这个账号退出聊天

count ++;

Msg("用户名或密码错误！你还剩"+ (3-count) +"次机会！,请重新输入");

**if** (count == 3) {

System.***out***.println("最多三次机会");

**this**.closeMe();

}

}

**else** {

System.***out***.println("欢迎"+id+"进入聊天室");

**break**;

}

}

Chat.*addClient*(**this**);

String input=brd.readLine();

**while**(!input.equals("bye")) {

System.***out***.println("服务器读到的是:"+input);

Chat.*castMsg*(**this**.user, input);

input=brd.readLine();

}

Chat.*castMsg*(**this**.user, "bye");

**this**.closeMe();

}

**public** **void** closeMe() **throws** Exception {

Msg("退出系统！");

cl.close();

}

}

package kcsj;

import java.io.\*;

import java.net.HttpURLConnection;

import java.net.ServerSocket;

import java.net.Socket;

import java.net.URL;

import java.net.UnknownHostException;

public class Client extends Thread{

InputStream input=null;

OutputStream output=null;

BufferedReader bufferinput=null;

Socket socket=null;

int i=30;

public Client(){

//初始化时连接服务器

try {

socket=new Socket("127.0.0.1",8572);

input=socket.getInputStream();

output=socket.getOutputStream();

//验证用户信息

login();

} catch (Exception e) {

e.printStackTrace();

}

}

public static void main(String[] args){

Client cl=new Client();

}

public void login(){

try {

int Login=0;

bufferinput=new BufferedReader(new InputStreamReader(input));

String line;

while(Login<2){

//获取消息

if((line=bufferinput.readLine())!=null){

System.out.println(line);

}

//发送消息

BufferedReader brName = new BufferedReader(new InputStreamReader(System.in));

String strName;

strName = brName.readLine()+"\r\n";

output.write(strName.getBytes());

output.flush();

Login++;

}

chat();

} catch (UnknownHostException e) {

// TODO Auto-generated catch block

e.printStackTrace();

} catch (IOException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}finally{

if(socket!=null){

try {

socket.close();

} catch (IOException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

}

}

}

public void chat() {

start();

bufferinput=new BufferedReader(new InputStreamReader(input));

String line;

try {

while(true){

if((line=bufferinput.readLine())!=null){

System.out.println(line);

}

}

} catch (IOException e) {

e.printStackTrace();

}finally{

if(socket!=null){

try {

socket.close();

} catch (IOException e) {

e.printStackTrace();

}

}

}

}

public void run() {

while(true){

BufferedReader brName = new BufferedReader(new InputStreamReader(System.in));

String strName;

try {

strName = brName.readLine()+"\r\n";

output.write(strName.getBytes());

output.flush();

} catch (IOException e) {

e.printStackTrace();

}

}

}

public void run1() throws Exception {

while(true){

i--;

Thread.sleep(1000);

if(i==0) {

String getURL="http://www.turingapi.com/";

URL getUrl=new URL(getURL);

HttpURLConnection connection = (HttpURLConnection) getUrl.openConnection();

connection.connect();

// 取得输入流，并使用Reader读取

BufferedReader reader = new BufferedReader(new InputStreamReader( connection.getInputStream(), "utf-8"));

StringBuffer sb = new StringBuffer();

String line = "";

while ((line = reader.readLine()) != null) {

sb.append(line);

}

reader.close();

// 断开连接

connection.disconnect();

System.out.println(sb);

}

}

}

## 3.6用户界面

package kcsj;

import java.io.IOException;

import java.util.ArrayList;

public class Chat {

private static ArrayList<Server> stList=new ArrayList();

private Chat() {}

public static void addClient(Server st) throws Exception {

stList.add(st);

castMsg(st.getOwerUser(), null);

}

public static void castMsg(User sender,String msg) throws Exception {

msg = sender.getId()+"："+msg;

for(int i=0;i<stList.size();i++) {

Server st=stList.get(i);

st.Msg(msg);

}

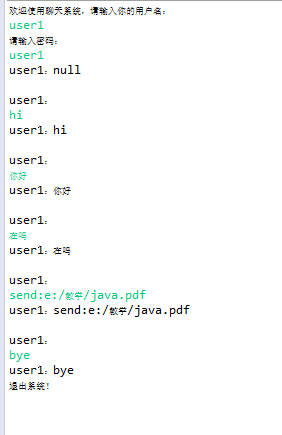
}

}

# **4 系统测试**

设计测试用例，给出程序每个功能模块的运行结果截图。





# **5 系统总结**

主要问题的解决过程、系统存在的不足，本门课程的收获，课程的建议，以后的发展方向，自评成绩。

本门课程对我们来说是一门相当重要的课程，在这门课程里我们基本了解了Java语音在实际中的运用，但是对于像我这样的基础比较薄弱的学生来说，这门课的学业任务还是比较有压力的，我觉得可以多讲一讲习题，在做过这类型的题目之后会对与那部分知识有更加深刻的理解，再讲习题的时候，对于我们这些基础薄弱的学生来说是一个巩固和提示的机会；在现在这个网络高度发达的社会，网络安全越来越被重视，网络安全问题越来越严重，随之而来的是网络安全领域的发展，所以我对于向网络安全方向的发展有一定的倾向；这次的课程设计说实话写的不好，估计也就是在及格线徘徊