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import java.io.*;
import java.util.ArrayList;
public class UserData {
     private ArrayList<User> users = new ArrayList<User>();
     private User currentUser;
     private File file = new File("data.save");
     private boolean isLogin = false;
     public UserData() {
            InputStreamReader read;
           try {
                 read = new InputStreamReader(new FileInputStream(file));
                 BufferedReader bufferedReader = new
BufferedReader(read);
                 String lineT = null;
                 while ((lineT = bufferedReader.readLine()) != null) {
                       String[] str = lineT.split(" ");
                       User userReg = new User(str[0], str[1]);
                       userReg.setScore(Integer.parseInt(str[2]));
                       users.add(userReg);
            } catch (FileNotFoundException e) {
                 e.printStackTrace();
            } catch (NumberFormatException e) {
                 e.printStackTrace();
            } catch (IOException e) {
                 e.printStackTrace();
      }
     public void saveScore(int score) {
            try {
                 FileWriter fileWriter = new FileWriter(file);
                 BufferedWriter bufferWriter = new
BufferedWriter(fileWriter);
                 for (User user : users) {
                       if (user.getUserName() ==
currentUser.getUserName()) {
                             if (user.getScore() < score)</pre>
                                   user.setScore(score);
                       bufferWriter.write(user.getUserName() + " " +
user.getPassword() + " " + user.getScore() + "\n");
                 bufferWriter.close();
                 fileWriter.close();
            } catch (IOException e) {
                 e.printStackTrace();
     public String getName(int index) {
           return users.get(index).getUserName();
     public User[] getList() {
```

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ArrayList<User> usersTemp = users;
           for (int i = 0; i < usersTemp.size() - 1; ++i) {
                 for (int j = i; j < usersTemp.size() - 1 - i; ++j) {
                       if (usersTemp.get(j).getScore() < usersTemp.get(j</pre>
+ 1).getScore()) {
                             User temp = usersTemp.get(j);
                             usersTemp.set(j, usersTemp.get(j + 1));
                             usersTemp.set(j + 1, temp);
                       }
                 }
           int rankSize = usersTemp.size() <= 10 ? usersTemp.size() :</pre>
10;
           User[] userList = new User[rankSize];
           for (int i = 0; i < rankSize; i++)
                 userList[i] = usersTemp.get(i);
           return userList;
     public boolean register(User user) {
           for (User u : users)
                 if (u.getUserName().equals(user.getUserName())) {
                       return false;
           try {
                 users.add(user);
                 FileWriter fileWriter = new FileWriter(file, true);
                 BufferedWriter bufferWriter = new
BufferedWriter(fileWriter);
                 bufferWriter.write(user.getUserName() + " " +
user.getPassword() + " " + user.getScore() + "\n");
                 bufferWriter.close();
                 fileWriter.close();
           } catch (IOException e) {
                 e.printStackTrace();
           return true;
      }
     public boolean login(String userName, String password) {
           boolean flag = false;
           for (User user : users) {
                 if (userName.equals(user.getUserName()) &&
password.equals(user.getPassword())) {
                       flag = true;
                       currentUser = user;
                       isLogin = true;
                       break;
                 }
           return flag;
     public boolean isLogin() {
           return isLogin;
}
```