

QuizApp – Client & Server

This project is a multiplayer Quiz Application built with Java, consisting of a **QuizApp Server** and **QuizApp Client**. The client communicates with the server for user registration, login, challenges, quiz attempts, and result display.



How to Run the Application

1. **Start the QuizApp Server**

Run the server first. Once it starts successfully, a “Server Started” message will appear on the console.

2. **Run the QuizApp Client**

After the server is running, launch the QuizAppClient. This opens the first interface: **Gateway Form**.

The screenshot shows the NetBeans IDE interface for a Java application named QuizAppServer. The code editor displays a Java file with the following code:

```
119     }try
120     {
121         catch (IOException | ClassNotFoundException ex)
122         JOptionPane.showMessageDialog(this, ex);
123     }
124
125     if (score1 > score2)
126     {
127         jLabel14.setText("Winner is " + pChallenge.FromUserName);
128     }
129     else if(score2> score1)
130     {
131         jLabel14.setText("Winner is " + pChallenge.ToUserName);
132     }
133     else if(score1 == score2)
134     {
135         jLabel14.setText("Its a Draw!");
136     }
137 }
```

The output window shows the application has started successfully:

```
run:
Server Started
```

● **Gateway Form**

The **Gateway** is the starting **JFrame** of the Quiz Client Application.
It contains two main options:

- **Register**
- **Login**

Users must register before playing the quiz.



Registration

The **Register** dialog appears when the user clicks the **Register** button on the Gateway.

Fields included

- Name
- Age
- User ID
- Password
- Confirm Password

Validation & Workflow

- All fields are validated (non-empty checks).
- Password and Confirm Password must match.
- An object is created to store user details.
- The details are sent to the server.
- The server responds back using an **Input Stream buffer** to indicate whether registration was successful.



Eshita Gupta



Adobe



Norton 360



blender -
Blender 2.79b



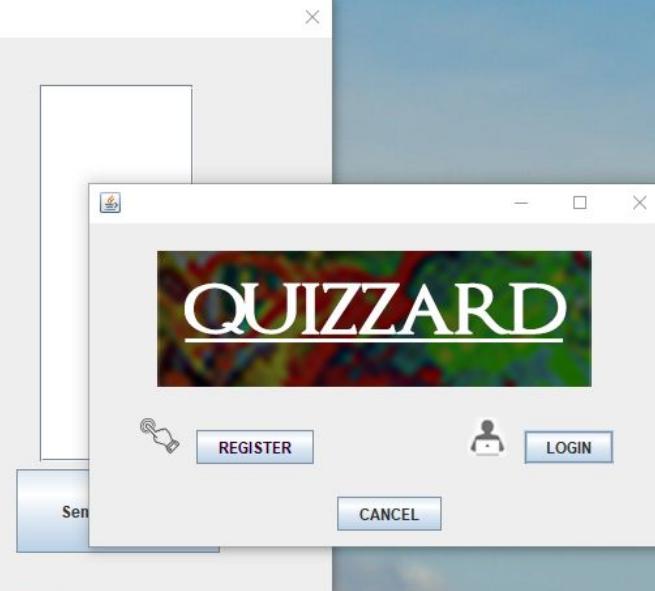
Welcome Eshita Gupta!



Get Online users

Change Password

R



Type here to search

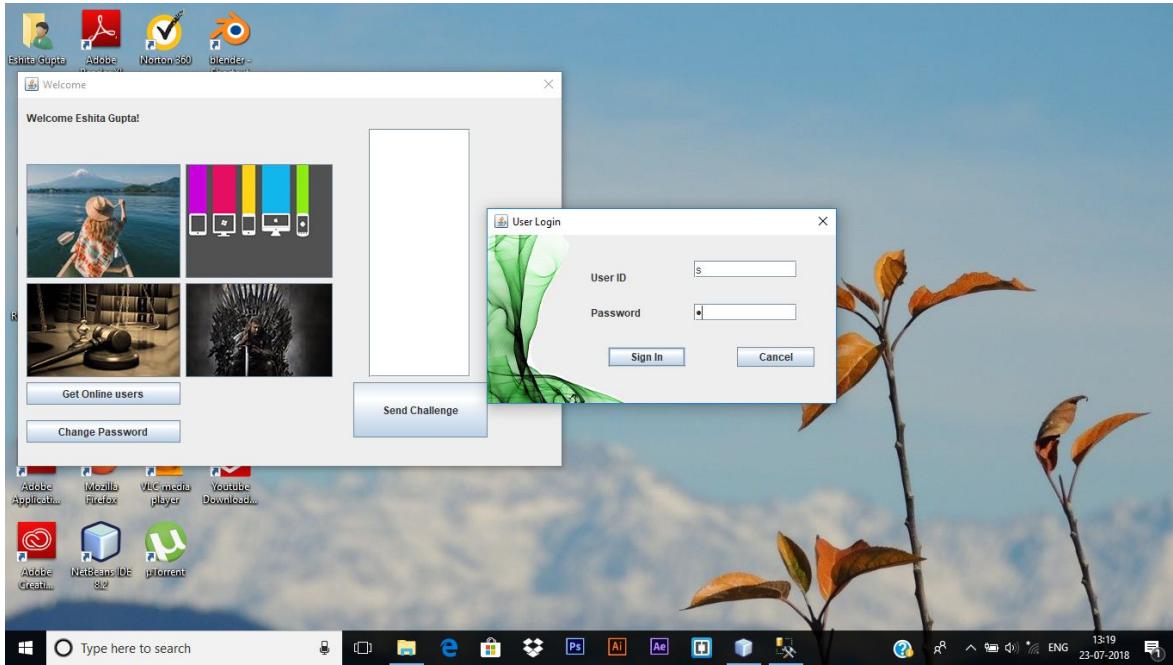


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ENG

1



Login

The **Login** dialog appears when the **Login** button is clicked.

Login steps:

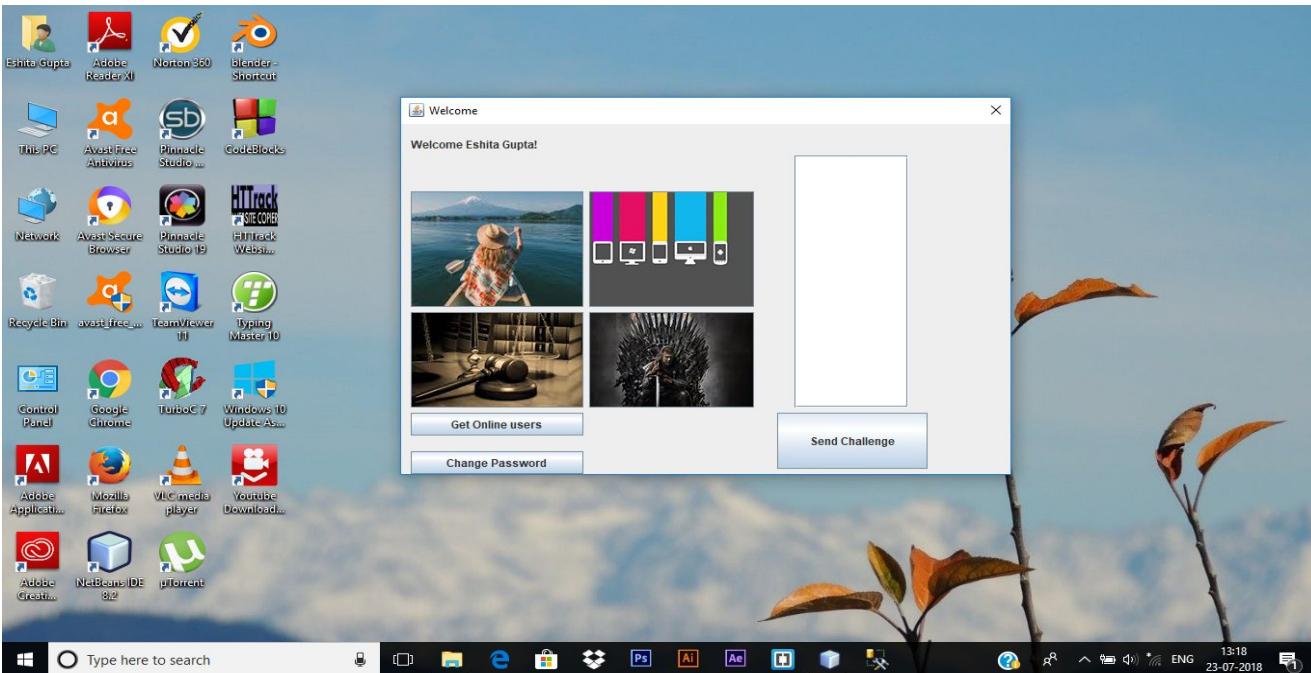
- User enters **User ID** and **Password**.
- Credentials are verified with the server.
- If the server returns '**1**', login is considered successful.



Welcome Dialog

After login, the **Welcome JDialog** displays:

- Logged-in user details
- List of currently online users



Menu Options:

- Change Password
- Show Developers



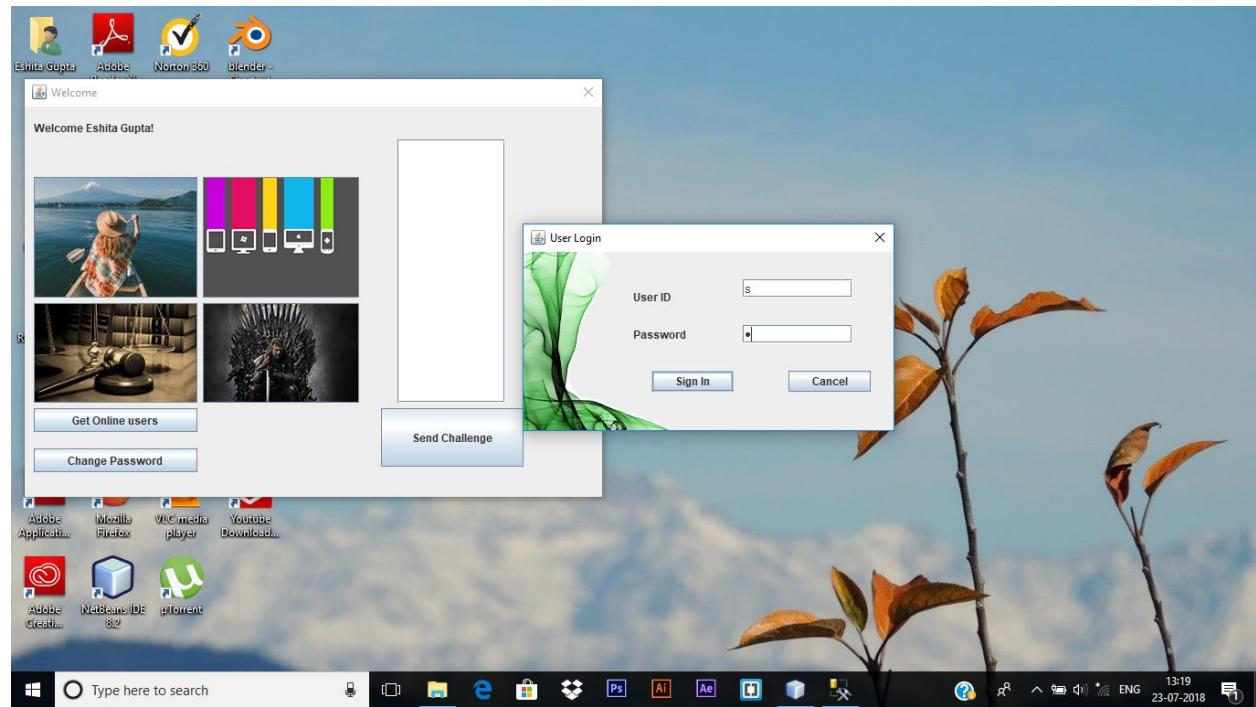
Challenge Feature:

- Select an opponent from the online users list.
- Click **Send Challenge** to invite them for a quiz match.
- Control transfers to the **Response Wait Dialog**.

🔑 Change Password

A separate dialog allows the user to update their password.

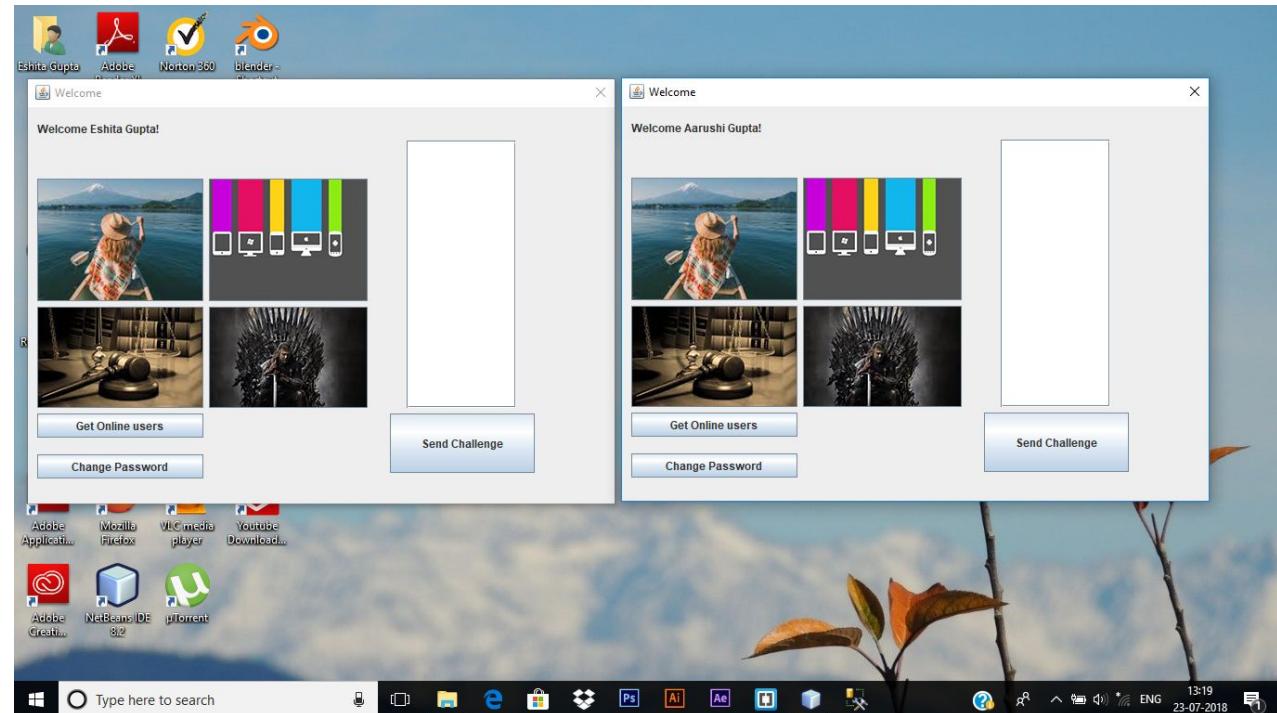
- Includes three password fields:
 - Old Password
 - New Password
 - Confirm New Password
- Old password is validated against the database.
- New passwords must match.
- Successful update is saved in the database.





Challenge Workflow

- When User A sends a challenge, they wait for User B's response.
- User B sees a Welcome dialog where they can accept the challenge.
- Once accepted, **both users** are redirected to the **Question Frame**.

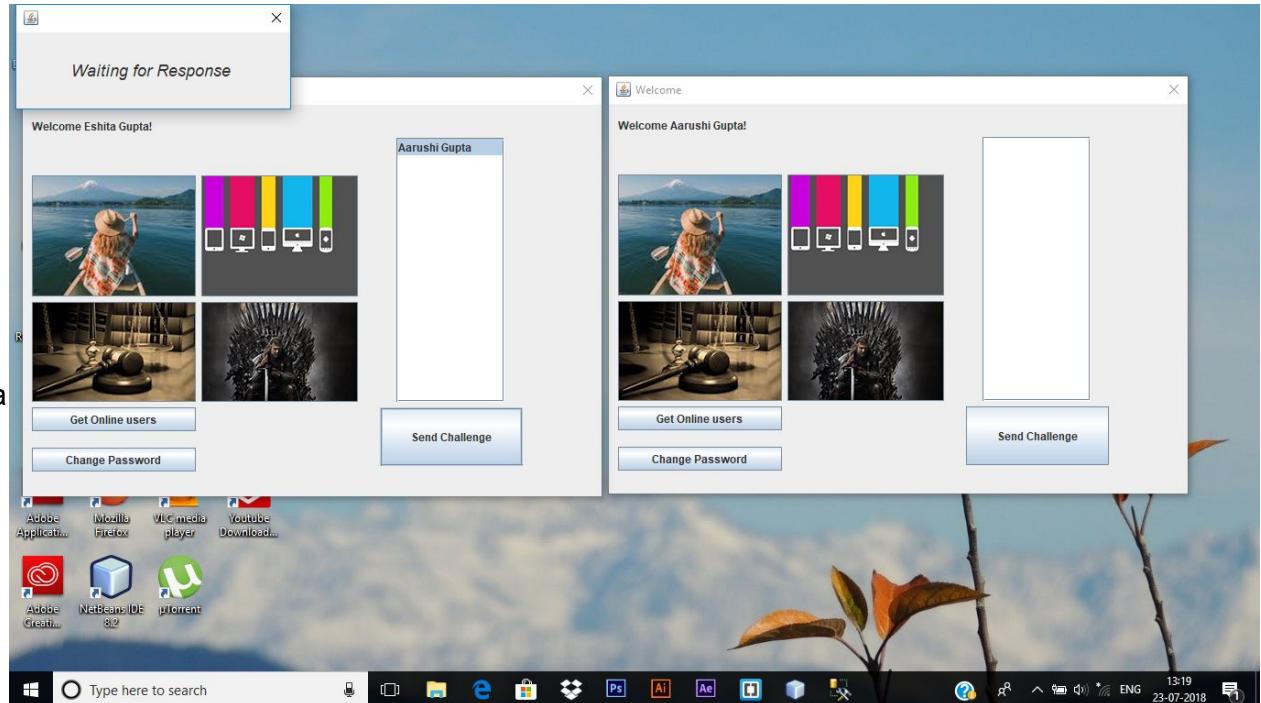


?

Question Frame

Both participants receive the quiz questions simultaneously.

- Users attempt questions independently.
- Once the first user submits the quiz, a “Wait for Result” screen is displayed for them.
- The result is generated only after **both users have submitted** their answers.





X

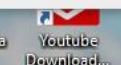
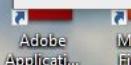
Waiting for Response

Welcome Eshita Gupta!



Get Online users

Change Password



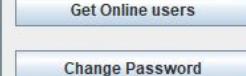
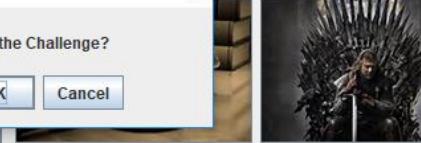
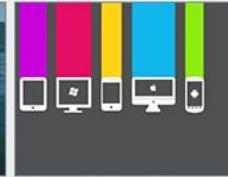
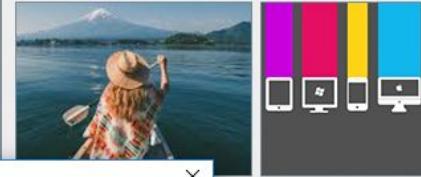
Send Challenge

Send Challenge

X

Welcome

Welcome Aarushi Gupta!



Get Online users

Change Password

Send Challenge

New Challenge



Accept the Challenge?

OK

Cancel

R



Type here to search



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From User Eshita Gupta

To User Aarushi Gupta

Which comic does Will choose from Dustin's collection as a prize for the race home in episode one?

X-Men#134

SuperMan

Amazing SpiderMan

Incredible Hulk

Next

Get Online users

Change Password

Send Challenge



From User Eshita Gupta

To User Aarushi Gupta

Which comic does Will choose from Dustin's collection as a prize for the race home in episode one?

X-Men#134

SuperMan

Amazing SpiderMan

Incredible Hulk

Next

Get Online users

Change Password

Send Challenge



Type here to search



ENG

13:19
23-07-2018





Welcome Eshita Gupta!



Get Online users

Change Password



Type here to search



Aarushi Gupta

From User Eshita Gupta

To User Aarushi Gupta

Which comic does Will choose from Dustin's collection as a prize for the race home in episode one?

X-Men#134

Wait for Result

Opponent still attempting quiz...

Send Challenge

Get Online users

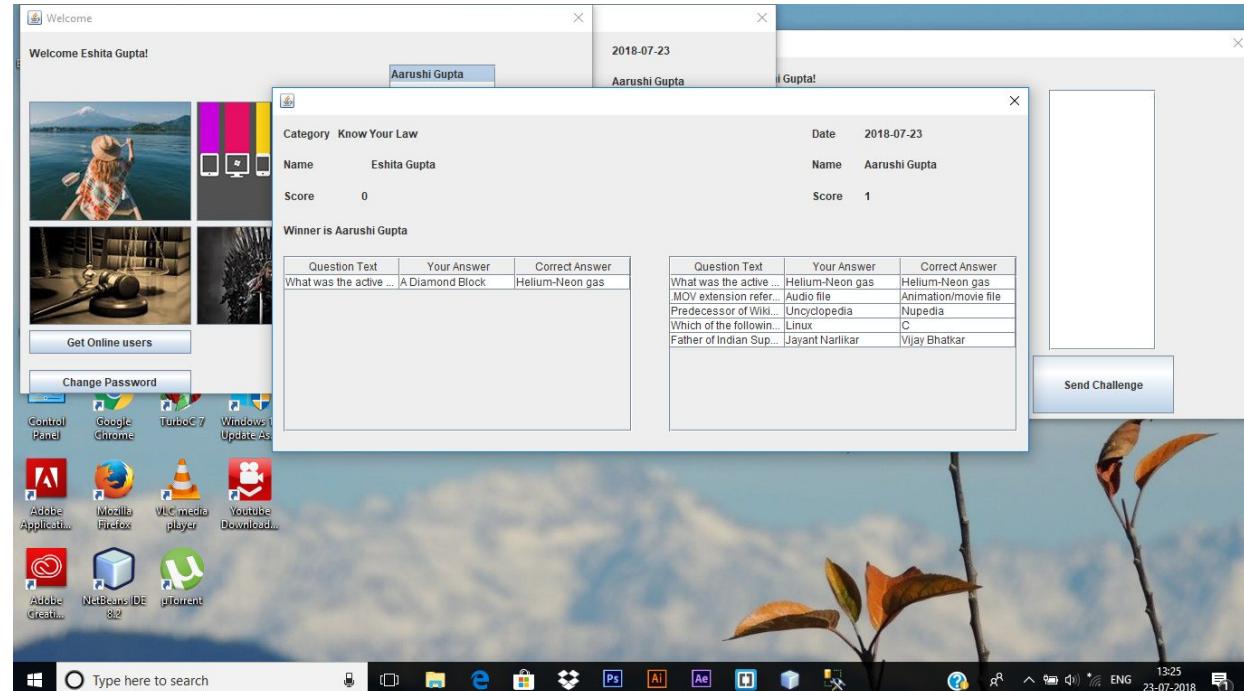
Change Password

Send Challenge

🏆 Final Result

The Final Result Form displays:

- Quiz category
- Date of the quiz
- Names of both users
- Their respective scores
- Winner name



Additionally, a result table is shown with:

- Each question
- The option attempted
- The correct answer/explanation