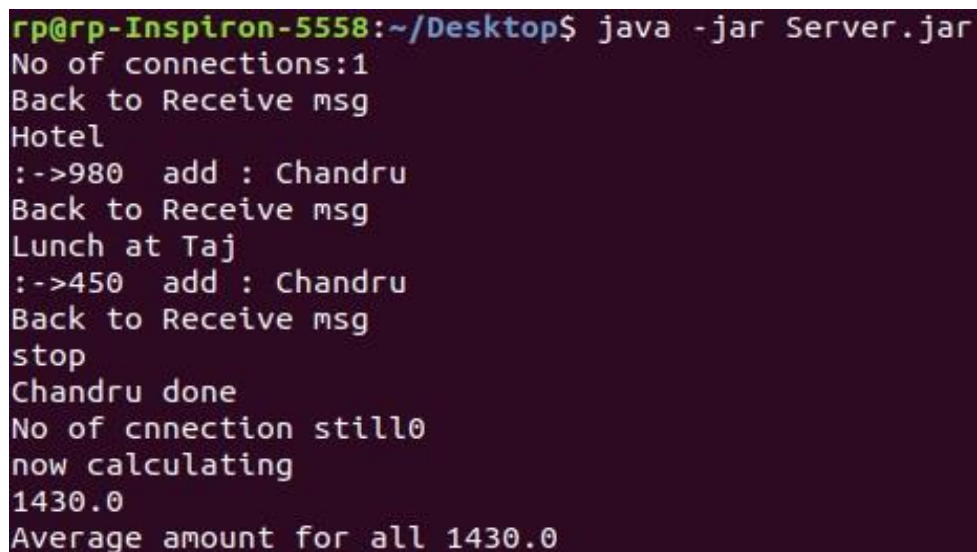


## Setup Manual

This program will require at least three PCs for running. One server and two or more for clients. Program will work for even a single client also but it will be a trivial case as there is no one to split the bill between. Running more than one instance of the program on the same PC simultaneously will lead to Socket Bind exception.

### ➤ Server Setup:

Run the jar file using the “java -jar” command. Make sure to send all the Client login request within 20 seconds after starting the server.



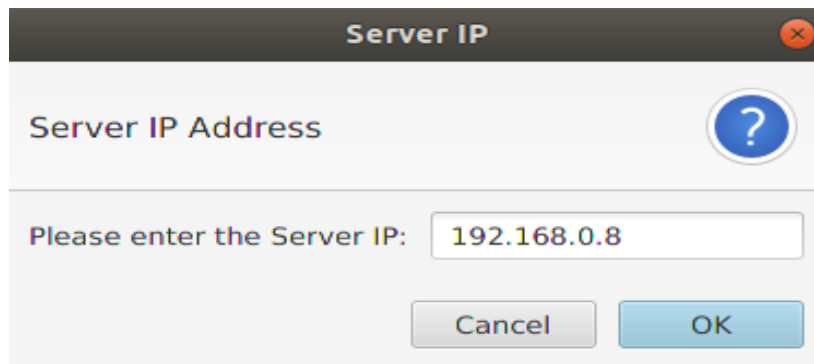
```
rp@rp-Inspiron-5558:~/Desktop$ java -jar Server.jar
No of connections:1
Back to Receive msg
Hotel
:->980 add : Chandru
Back to Receive msg
Lunch at Taj
:->450 add : Chandru
Back to Receive msg
stop
Chandru done
No of connection still 0
now calculating
1430.0
Average amount for all 1430.0
```

### ➤ Client Setup:

Since there is just a 20 seconds window to connect to server, it is recommended that the client program is started first where we need to enter the Server IP and the Username and the Password and Press the login button the time gets runs out.

- Step 1:

Start the client program using the jar file. Enter the IP address of the PC which will be running the Server program.

A dialog box titled "Server IP" with a close button in the top right corner. It contains a label "Server IP Address" with a help icon (a blue circle with a question mark) to its right. Below this is a text input field with the placeholder text "Please enter the Server IP:" and the value "192.168.0.8". At the bottom are "Cancel" and "OK" buttons.

Server IP

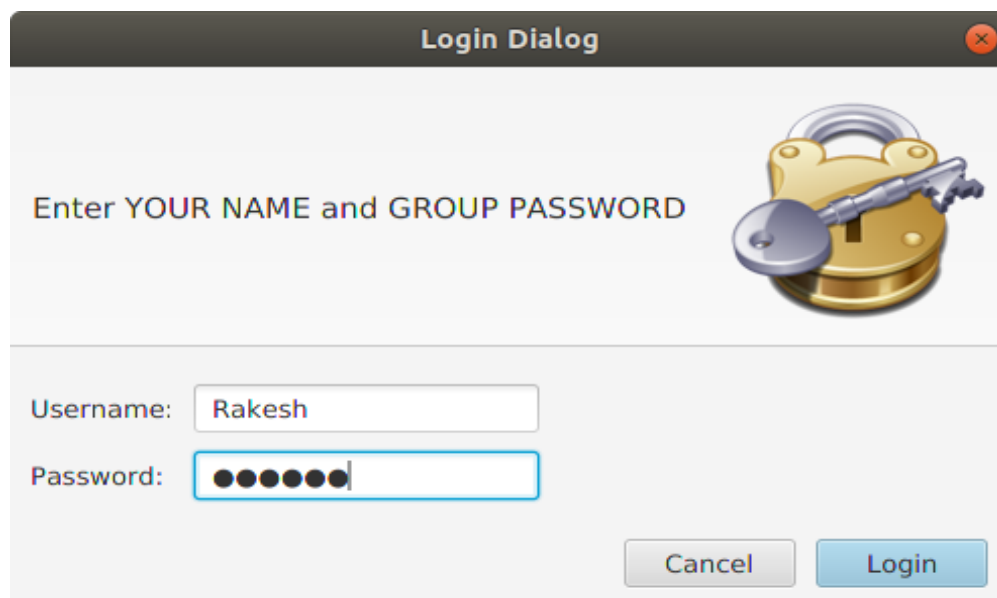
Server IP Address

Please enter the Server IP: 192.168.0.8

Cancel OK

- Step 2:

Enter the client's name in the username field and the password in the password field. The default password is "secret". Make sure you start the server before pressing the login button.

A dialog box titled "Login Dialog" with a close button in the top right corner. It features a large padlock icon with a key on the right side. The text "Enter YOUR NAME and GROUP PASSWORD" is centered. Below this are two input fields: "Username:" with the value "Rakesh" and "Password:" with masked characters (dots). At the bottom are "Cancel" and "Login" buttons.

Login Dialog

Enter YOUR NAME and GROUP PASSWORD

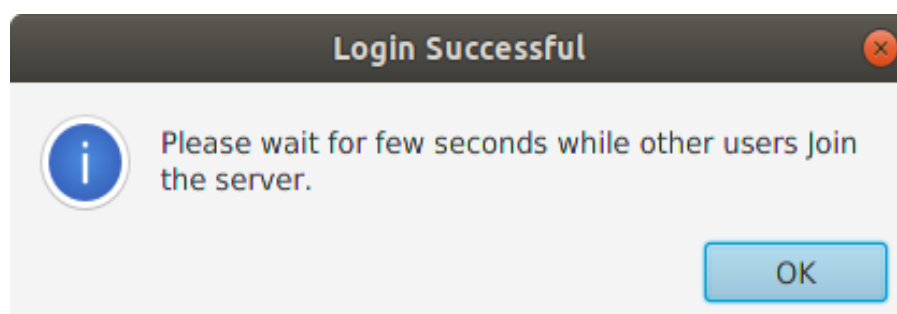
Username: Rakesh

Password: ●●●●●●

Cancel Login

- Step 3:

Once you press the login button you will get the login success message. You would need to wait for the time gap to complete before the client window appear.

A dialog box titled "Login Successful" with a close button in the top right corner. It contains an information icon (a blue circle with an 'i') on the left. To the right of the icon is the text "Please wait for few seconds while other users Join the server." At the bottom right is an "OK" button.

Login Successful

Please wait for few seconds while other users Join the server.

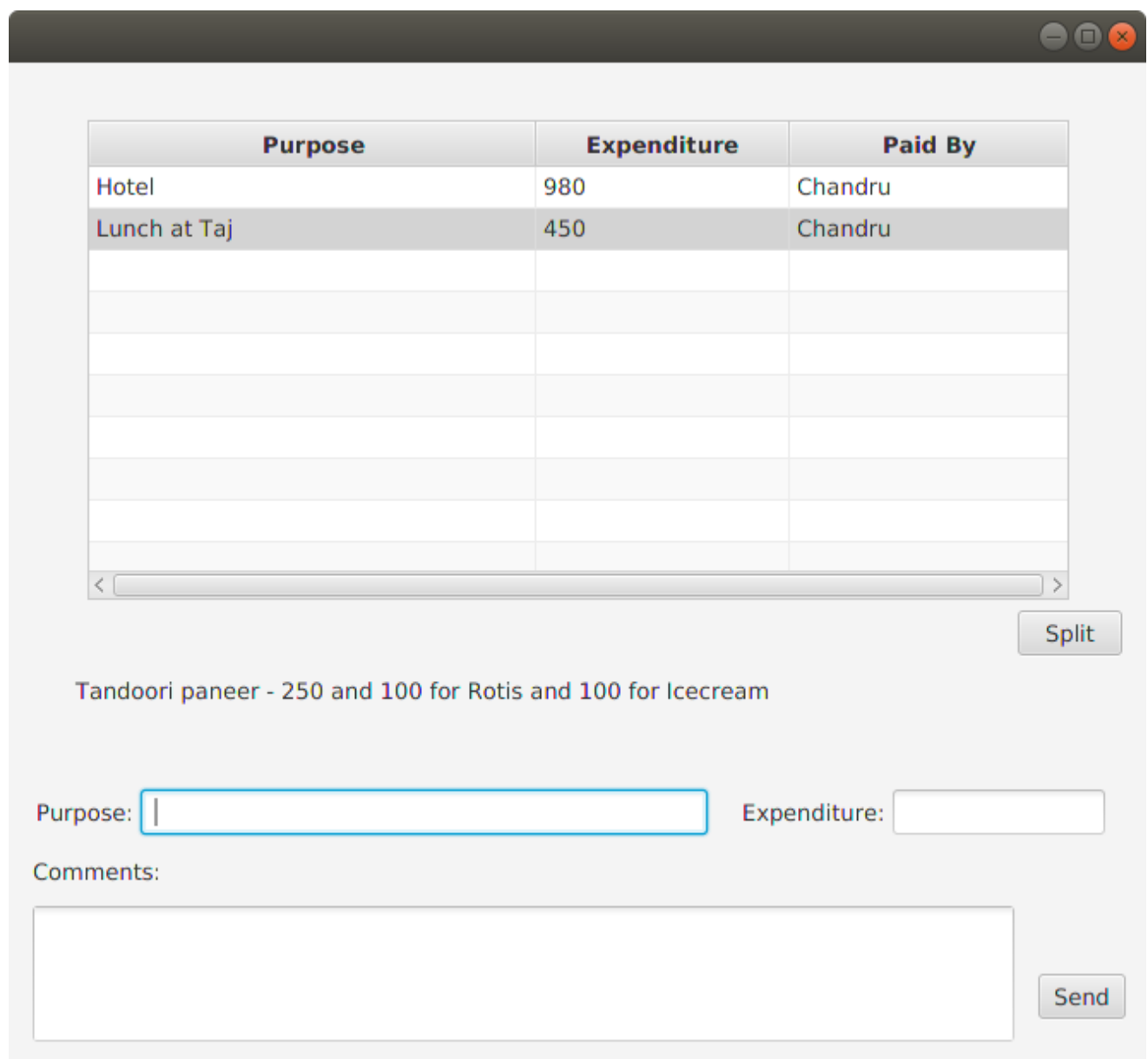
OK

- Step 4:

After the 20 seconds completes the Server sends a message to all the client to start their program and the client window appears.

You can enter your expenditure, the purpose and the comments where you can explain the expenditure too. Once you have filled the data you can press the send button and send the data.

You can see yours previously sent expense and the expense sent by others in the table. You can select the Expense you need to see the Comments for and the comment sent with the expense will be displayed below the table area.



The screenshot shows a client window with a table of expenses and input fields for adding a new expense. The table has three columns: Purpose, Expenditure, and Paid By. It contains two rows of data: Hotel (980, Chandru) and Lunch at Taj (450, Chandru). Below the table is a 'Split' button. Underneath the button, the text 'Tandoori paneer - 250 and 100 for Rotis and 100 for Icecream' is displayed. At the bottom, there are input fields for 'Purpose:', 'Expenditure:', and 'Comments:', along with a 'Send' button.

Purpose	Expenditure	Paid By
Hotel	980	Chandru
Lunch at Taj	450	Chandru

Split

Tandoori paneer - 250 and 100 for Rotis and 100 for Icecream

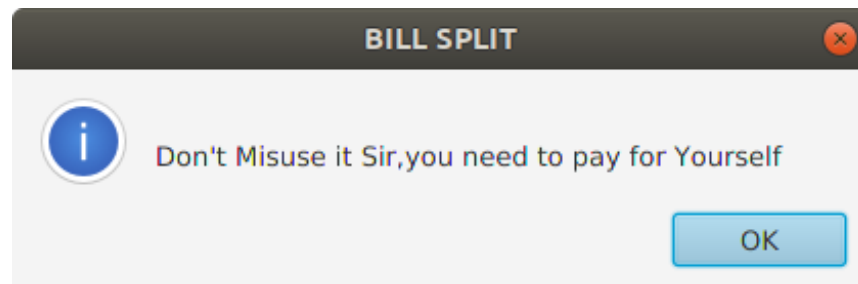
Purpose:  Expenditure:

Comments:

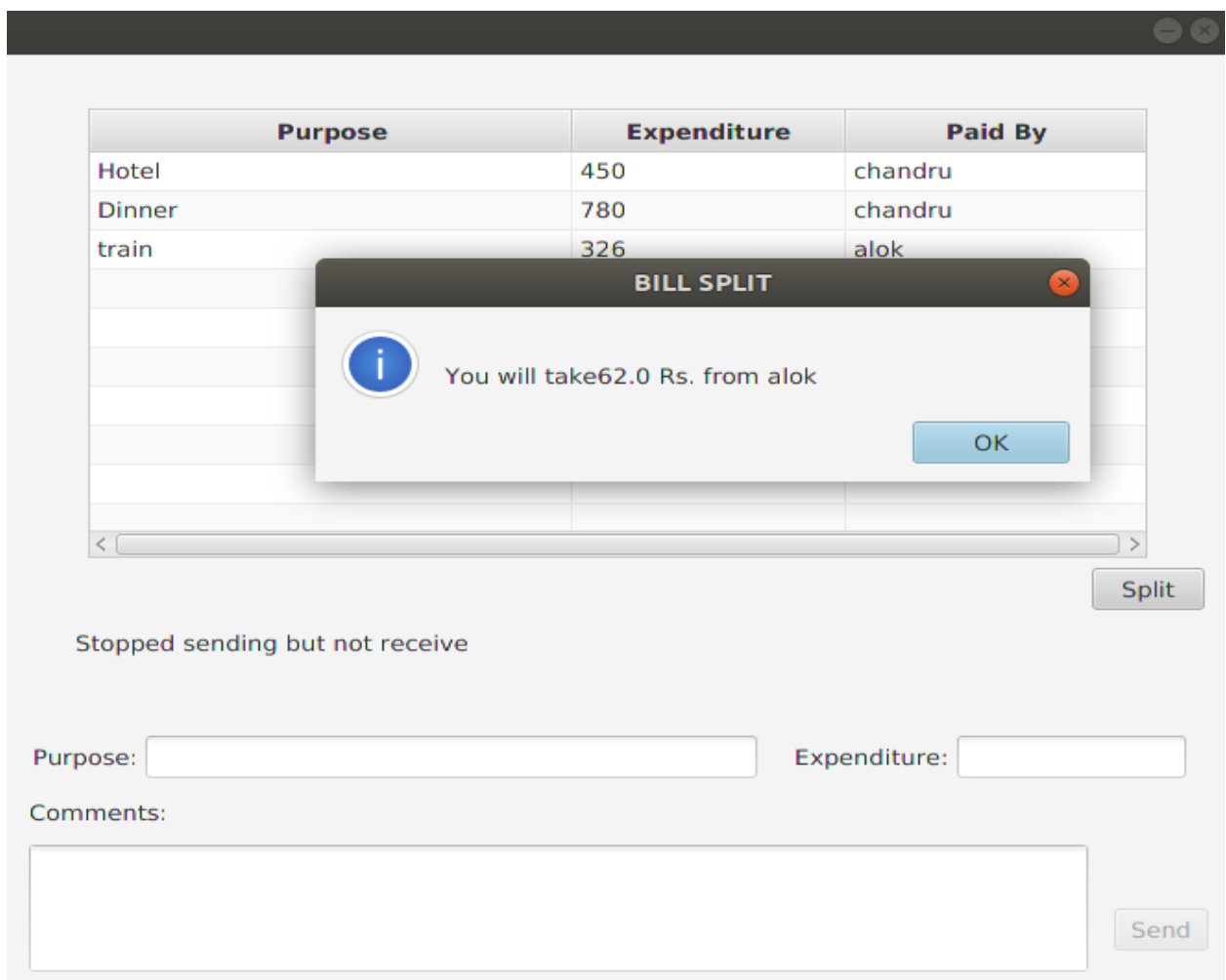
Send

- Step 5:

Once you have entered all your expenses just press Split button and the split signal is sent to the server. Once the all the active clients send their respective split signal the server will calculate the Bill and every client will get their personal data about how much to pay to which person.



(Trivial Case where only one Client is there)



(Proper Run with 2 Clients)