PROYECTO #1

Cliente XMPP

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CARACTERÍSTICAS IMPLEMENTADAS

REGISTER

```
----- Chat Redes -----
Available options:
1) Register a new account on the server
2) Log in with an account
3) Log out with an account
4) Delete account from the server
5) Exit

Enter an option: 2


---- Login ----

Enter the following data to log in...
1) Username: Hola20541
2) Enter password:

Something went wrong, please try again
Your username or password is incorrect
Or your account doesn't exist on the server
```

```
----- Chat Redes -----
Available options:
1) Register a new account on the server
2) Log in with an account
3) Log out with an account
4) Delete account from the server
5) Exit

Enter an option: 1


---- Register ----

To register a new account, we need some information...
1) Username: Hola20541
2) Enter password:
3) Confirm password:
Account created successfully!!!
```

LOGIN

```
----- Chat Redes -----
Available options:
1) Register a new account on the server
2) Log in with an account
3) Log out with an account
4) Delete account from the server
5) Exit

Enter an option: 2


---- Login ----


Enter the following data to log in...
1) Username: Hola20541
2) Enter password:
Welcome!!!

----------- Chat Network -----------
Connected User: Hola20541
------------------------------------


Available options:
1) Show all contacts and their status
2) Add a user to contacts
3) Show contact details
4) One-to-one communication with any user/contact
5) Participate in group conversations
6) Set presence message
7) Notifications
8) Send/receive files
9) Log out

Enter an option: ▌
```

LOGOUT

```
----------- Chat Network -----------
Connected User: Hola20541
---------------------------------------


Available options:
1) Show all contacts and their status
2) Add a user to contacts
3) Show contact details
4) One-to-one communication with any user/contact
5) Participate in group conversations
6) Set presence message
7) Notifications
8) Send/receive files
9) Log out


Enter an option: 9
Session closed successfully! Come back soon!


----- Chat Redes -----
Available options:
1) Register a new account on the server
2) Log in with an account
3) Delete account from the server
4) Exit


Enter an option: ▌
```

DELETE ACCOUNT

```
----- Chat Redes -----
Available options:
1) Register a new account on the server
2) Log in with an account
3) Delete account from the server
4) Exit

Enter an option: 3
---- Delete account ----

Enter the following data to log in...
1) Username: Hola20541
2) Enter password:
Do you want to delete this account from the server? (y/n): y
Account deleted from the server successfully
```

```
----- Chat Redes -----
Available options:
1) Register a new account on the server
2) Log in with an account
3) Delete account from the server
4) Exit

Enter an option: 3
---- Delete account ----

Enter the following data to log in...
1) Username: Hola20541
2) Enter password:
Do you want to delete this account from the server? (y/n): y
Account deleted from the server successfully

----- Chat Redes -----
Available options:
1) Register a new account on the server
2) Log in with an account
3) Delete account from the server
4) Exit

Enter an option: 2

---- Login ----

Enter the following data to log in...
1) Username: Hola20541
2) Enter password:

Something went wrong, please try again
Your username or password is incorrect
Or your account doesn't exist on the server
```

EXIT

```
----- Chat Redes -----
Available options:
1) Register a new account on the server
2) Log in with an account
3) Delete account from the server
4) Exit

Enter an option: 4
Thanks for use this Client!!

PS C:\Users\Usuario\Desktop\8vo. Semestre UVG 2023\Redes\XMPP_Client>
```

SHOW ALL CONTACTS

```
----------- Chat Network -----------
Connected User: gar20541redes
------------------------------------


Available options:
1) Show all contacts and their status
2) Add a user to contacts
3) Show contact details
4) One-to-one communication with any user/contact
5) Participate in group conversations
6) Set presence message
7) Notifications
8) Send/receive files
9) Log out

Enter an option: 1


+----------------+------------------------+----------------+--------------------------+
|                                   Contact List                                       |
+----------------+------------------------+----------------+--------------------------+
| Name           | JID                    | Status         | Status message           |
+----------------+------------------------+----------------+--------------------------+
| p20541A        | p20541a@alumchat.xyz   | Available      | No status                |
+----------------+------------------------+----------------+--------------------------+
| p20541B        | p20541b@alumchat.xyz   | Available      | Estoy desayunando        |
+----------------+------------------------+----------------+--------------------------+
| bar20807       | bar20807@alumchat.xyz  | Not available  | No status                |
+----------------+------------------------+----------------+--------------------------+
```

```
-----------------------------------------------
Notification from: gar20541redes@alumchat.xyz
Content: Hello! I'd like to have you as a contact.
-----------------------------------------------


----------- Chat Network -----------
Connected User: test20541
-----------------------------------


Available options:
1) Show all contacts and their status
2) Add a user to contacts
3) Show contact details
|                      Contact List                      |
+---------------+---------------------+----------------+-----------------------+
| Name          | JID                 | Status         | Status message        |
+---------------+---------------------+----------------+-----------------------+
| a             | a@alumchat.xyz      | Not available  | No status             |
+---------------+---------------------+----------------+-----------------------+
| gar20541redes | gar20541redes@alumchat.xyz | Not available  | No status      |
|                                                        |
+---------------+---------------------+----------------+-----------------------+
| bar20807      | bar20807@alumchat.xyz | Not available | No status             |
+---------------+---------------------+----------------+-----------------------+
```

```
----------- Chat Network -----------
Connected User: gar20541redes
-----------------------------------


Available options:
1) Show all contacts and their status
2) Add a user to contacts
3) Show contact details
4) One-to-one communication with any user/contact
5) Participate in group conversations
6) Set presence message
7) Notifications
8) Send/receive files
9) Log out

Enter an option: 2
Contact username: test20541
Contact invitation sent successfully.
```

```
----------- Chat Network -----------
Connected User: gar20541redes
-----------------------------------

Available options:
1) Show all contacts and their status
2) Add a user to contacts
3) Show contact details
4) One-to-one communication with any user/contact
5) Participate in group conversations
6) Set presence message
7) Notifications
8) Send/receive files
9) Log out

Enter an option: 1

+--------------+---------------------+------------------+-------------------
--------------+
|              |                      Contact List                           |
--------------+
+--------------+---------------------+------------------+-------------------
| Name         | JID                 | Status           | Status message       |
+--------------+---------------------+------------------+-------------------
| test20541    | test20541@alumchat.xyz | Available     | No status            |
+--------------+---------------------+------------------+-------------------
| p20541A      | p20541a@alumchat.xyz | Available       | No status            |
+--------------+---------------------+------------------+-------------------
| p20541B      | p20541b@alumchat.xyz | Available       | Estoy desayunando    |
+--------------+---------------------+------------------+-------------------
| bar20807     | bar20807@alumchat.xyz | Not available  | No status            |
+--------------+---------------------+------------------+-------------------
```

ADD CONTACT

USER DETAILS

```
---------- Chat Network ----------
Connected User: gar20541redes
-----------------------------------

Available options:
1) Show all contacts and their status
2) Add a user to contacts
3) Show contact details
4) One-to-one communication with any user/contact
5) Participate in group conversations
6) Set presence message
7) Notifications
8) Send/receive files
9) Log out

Enter an option: 3
Contact username: test20541

                User Information

+--------------------+--------------------+------------------+
| JID                | Username           | Status           |
+--------------------+--------------------+------------------+
| test20541@alumchat.xyz | test20541      | Available        |
+--------------------+--------------------+------------------+


+--------------------+--------------------+------------------+
| Can See My Presence | Can See His Presence | Status          |
+--------------------+--------------------+------------------+
| No                 | Yes                | No status        |
+--------------------+--------------------+------------------+
```

```
---------- Chat Network ----------
Connected User: gar20541redes
-----------------------------------

Available options:
1) Show all contacts and their status
2) Add a user to contacts
3) Show contact details
4) One-to-one communication with any user/contact
5) Participate in group conversations
6) Set presence message
7) Notifications
8) Send/receive files
9) Log out

Enter an option: 3
Contact username: p20541b

                User Information

+--------------------+--------------------+------------------+
| JID                | Username           | Status           |
+--------------------+--------------------+------------------+
| p20541b@alumchat.xyz | p20541B          | Available        |
+--------------------+--------------------+------------------+


+--------------------+--------------------+------------------+
| Can See My Presence | Can See His Presence | Status          |
+--------------------+--------------------+------------------+
| Yes                | Yes                | Estoy desayunando |
+--------------------+--------------------+------------------+
```

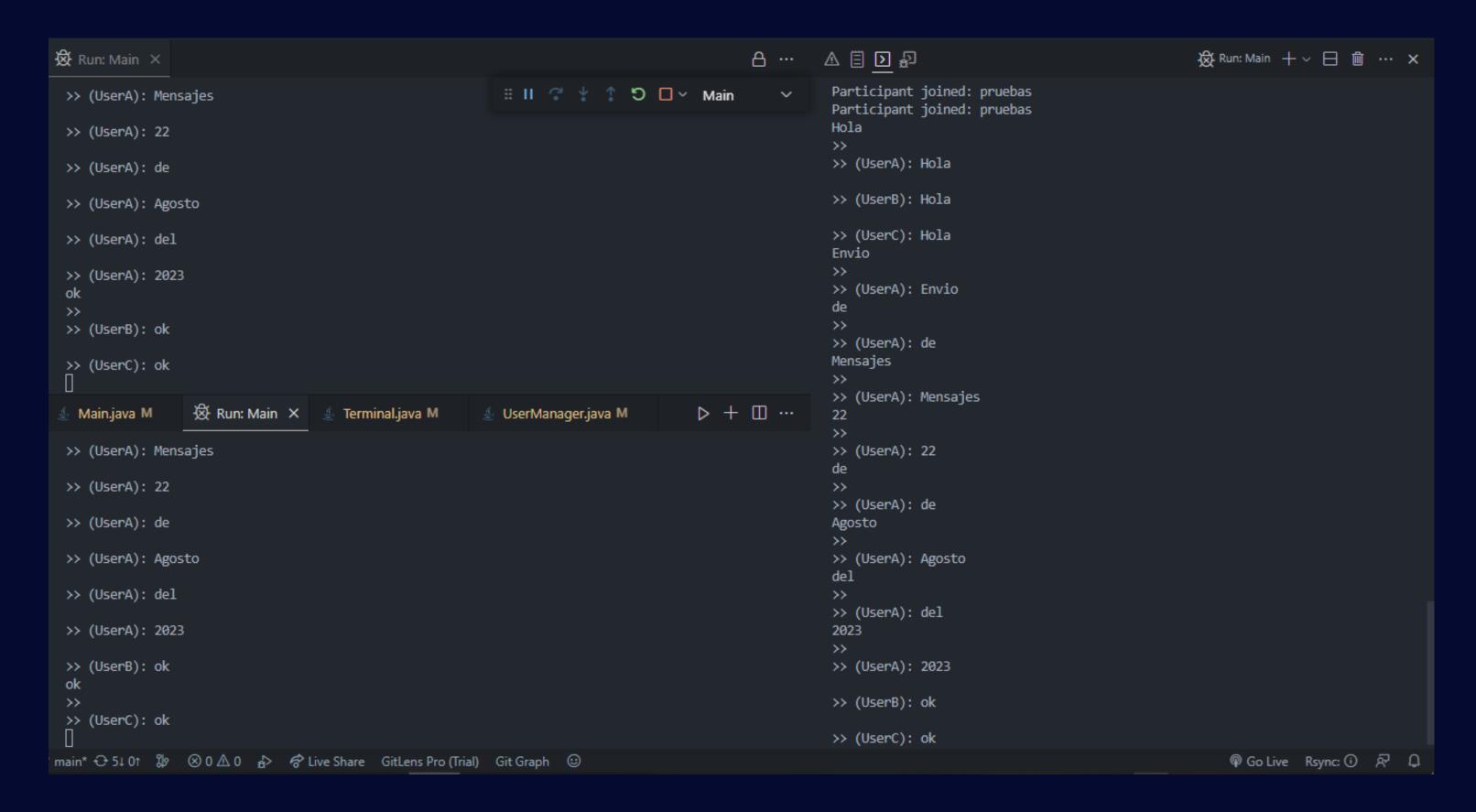# CHAT

```
Enter an option: 4                              Enter an option: 4
Available options                               Available options

1) Chat with contacts                           1) Chat with contacts
2) Chat with a new user                         2) Chat with a new user
3) Exit                                         3) Exit
What would you like to do?: 1                   What would you like to do?: 1

These contacts are available...                 These contacts are available...

1)  User: gar20541redes@alumchat.xyz | Status: Available      1)  User: test20541@alumchat.xyz | Status: Available
Enter the contact number to start a conversation (0 to exit): 2)  User: p20541a@alumchat.xyz | Status: Available
1                                               3)  User: p20541b@alumchat.xyz | Status: Available
Chat with gar20541redes@alumchat.xyz initiated. Type 'exit' to end the conversation.   Enter the contact number to start a conversation (0 to exit): 1
>> >>                                           Chat with test20541@alumchat.xyz initiated. Type 'exit' to end the conversation.
>> (gar20541redes@alumchat.xyz):                >> >> Hola
                                                >>
>> (gar20541redes@alumchat.xyz): Hola           >> (test20541@alumchat.xyz): Hola
Hola                                            Todo bien
>>                                              >>
>> (gar20541redes@alumchat.xyz): Todo bien      >> (test20541@alumchat.xyz): Si, todo bien
Si, todo bien                                   Bye
>>                                              >> Hasta la proxima
>> (gar20541redes@alumchat.xyz): Bye            >> exit

>> (gar20541redes@alumchat.xyz): Hasta la proxima   Chat with test20541@alumchat.xyz ended.
Hola?
>>                                              ----------- Chat Network -----------
```

GROUP CHAT

GROUP CHAT

MESSAGE PRESENCE

```
---------- Chat Network ----------
Connected User: gar20541redes
-----------------------------------

Available options:
1) Show all contacts and their status
2) Add a user to contacts
3) Show contact details
4) One-to-one communication with any user/contact
5) Participate in group conversations
6) Set presence message
7) Notifications
8) Send/receive files
9) Log out

Enter an option: 3
Contact username: test20541

                    User Information

+------------------------+----------------------+----------------+
| JID                    | Username             | Status         |
+------------------------+----------------------+----------------+
| test20541@alumchat.xyz | test20541            | Available      |
+------------------------+----------------------+----------------+

+------------------------+----------------------+----------------+
| Can See My Presence    | Can See His Presence | Status         |
+------------------------+----------------------+----------------+
| Yes                    | Yes                  | No status      |
+------------------------+----------------------+----------------+
```

```
---------- Chat Network ----------
Connected User: test20541
-----------------------------------

Available options:
1) Show all contacts and their status
2) Add a user to contacts
3) Show contact details
4) One-to-one communication with any user/contact
5) Participate in group conversations
6) Set presence message
7) Notifications
8) Send/receive files
9) Log out

Enter an option: 6
Enter your presence message: NuevoMensajeS
Are you sure? (y/n): y
Presence message updated successfully!

---------- Chat Network ----------
Connected User: test20541
-----------------------------------
```

```
6) Set presence message
7) Notifications
8) Send/receive files
9) Log out

Enter an option: 1

+----------------+----------------------+----------------+----------------------+
|                          Contact List                                          |
+----------------+----------------------+----------------+----------------------+
| Name           | JID                  | Status         | Status message       |
+----------------+----------------------+----------------+----------------------+
| test20541      | test20541@alumchat.xyz | Available    | NuevoMensajeS        |
+----------------+----------------------+----------------+----------------------+
| p20541A        | p20541a@alumchat.xyz | Not available  | No status            |
+----------------+----------------------+----------------+----------------------+
| p20541B        | p20541b@alumchat.xyz | Not available  | No status            |
+----------------+----------------------+----------------+----------------------+
| bar20807       | bar20807@alumchat.xyz | Not available | No status            |
+----------------+----------------------+----------------+----------------------+

---------- Chat Network ----------
Connected User: gar20541redes
-----------------------------------
```

NOTIFICATIONS

```
----------- Chat Network -----------
Connected User: test20541
------------------------------------


Available options:
1) Show all contacts and their status
2) Add a user to contacts
3) Show contact details
4) One-to-one communication with any user/contact
5) Participate in group conversations
6) Set presence message
7) Notifications
8) Send/receive files
9) Log out

Enter an option: 7
Notifications:
-------------------------------------------------------
Notification from: gar20541redes@alumchat.xyz
Content: I'm online and available.
-------------------------------------------------------
-------------------------------------------------------
Notification from: gar20541redes@alumchat.xyz
Content: I'm online and available.
-------------------------------------------------------
-------------------------------------------------------
Notification from: gar20541redes@alumchat.xyz
Content: I've gone offline. See you next time!
-------------------------------------------------------
-------------------------------------------------------
Notification from: gar20541redes@alumchat.xyz
Content: New message
(gar20541redes@alumchat.xyz) says:
-------------------------------------------------------
-------------------------------------------------------
Notification from: gar20541redes@alumchat.xyz
Content: New message
(gar20541redes@alumchat.xyz) says: Hola
-------------------------------------------------------
```

SEND FILES

```
8) Send/receive files
9) Log out

Enter an option: 4
Available options

1) Chat with contacts
2) Chat with a new user
3) Exit
What would you like to do?: 1

These contacts are available...

1)  User: gar20541redes@alumchat.xyz | Status: Available
Enter the contact number to start a conversation (0 to exit): 1
Chat with gar20541redes@alumchat.xyz initiated. Type 'exit' to end the conversation.
>> >> Received text file content:
Hi this is a File Test for Send Option
```

```
1) Show all contacts and their status
2) Add a user to contacts
3) Show contact details
4) One-to-one communication with any user/contact
5) Participate in group conversations
6) Set presence message
7) Notifications
8) Send/receive files
9) Log out

Enter an option: 8
Enter the following data to send files...
Enter the username: test20541

Confirm that test20541 is correct? (y/n): y
Enter the path: src\main\java\test.txt

Confirm that src\main\java\test.txt is correct? (y/n): y
File extension: txt
File sent successfully.

----------- Chat Network -----------
Connected User: gar20541redes
------------------------------------

Available options:
1) Show all contacts and their status
2) Add a user to contacts
3) Show contact details
4) One-to-one communication with any user/contact
5) Participate in group conversations
6) Set presence message
7) Notifications
8) Send/receive files
9) Log out

Enter an option:
```

📄 test.txt   ✕   ▷ ↺ ⟨⟩ ◇ ○⟩ ⓝ ☐ ⋯

src > main > java > 📄 test.txt
        ChrisG19, 2 days ago | 1 author (ChrisG19)
    1   Hi this is a File Test for Send Option   ChrisG19, 2 days ago

DIFICULTADES

1. Encontrar versiones funcionales de Maven
   a. Prueba y error con ayuda de stackOverflow me ayudaron a encontrar una versión funcional
2. Conexión principal con Smack
   a. Seguí uno de los tutoriales que coloqué como referencia en el main para saber por dónde comenzar
3. Métodos deprecados en su mayoría o que no funcionaban entre sí por versiones
   a. Con ayuda de la documentación oficial y chatGPT generalmente encontraba métodos o pasos similares que compensaban lo que no funcionaba

DIFICULTADES

4. Lógica de threads y listeners
   - Inestigué más sobre los threads en Java y tuve que implementar un listener simple en un principio hasta saber cómo funcionaba, posteriormente fue agregando más cosas como cerrar los hilos, coordinar impresiones, etc.

5. Impresiones bonitas y ordenadas
   - Nuevamente a prueba y corrección procurando que se entendieran los mensajes enviados y recibidos. Cuenta con fallos leves por el tema de threads.

LECCIONES APRENDIDAS

1. Mejorar mi progresión y versionamiento con git
2. Comprender mejor el uso del protocolo XMPP
3. Un proyecto puede complicarse siempre más de lo que ya es. Tuve varios contratiempos y otros proyectos que me atrasaron y tuve que realizar muchas pruebas en cada opción para entender lo que sucedía.
4. Conocer más sobre las conexiones cliente-servidor y el tráfico de datos.

GRACIAS