



# PROYECTO #1

Cliente XMPP



# 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

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.

>> >>

>> (gar20541redes@alumchat.xyz):

>> (gar20541redes@alumchat.xyz): Hola

Hola

>>

>> (gar20541redes@alumchat.xyz): Todo bien

Si, todo bien

>>

>> (gar20541redes@alumchat.xyz): Bye

>> (gar20541redes@alumchat.xyz): Hasta la proxima

Hola?

>> █

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: test20541@alumchat.xyz | Status: Available

- 2) User: p20541a@alumchat.xyz | Status: Available

- 3) User: p20541b@alumchat.xyz | Status: Available

Enter the contact number to start a conversation (0 to exit): 1

Chat with test20541@alumchat.xyz initiated. Type 'exit' to end the conversation.

>> >> Hola

>>

>> (test20541@alumchat.xyz): Hola

Todo bien

>>

>> (test20541@alumchat.xyz): Si, todo bien

Bye

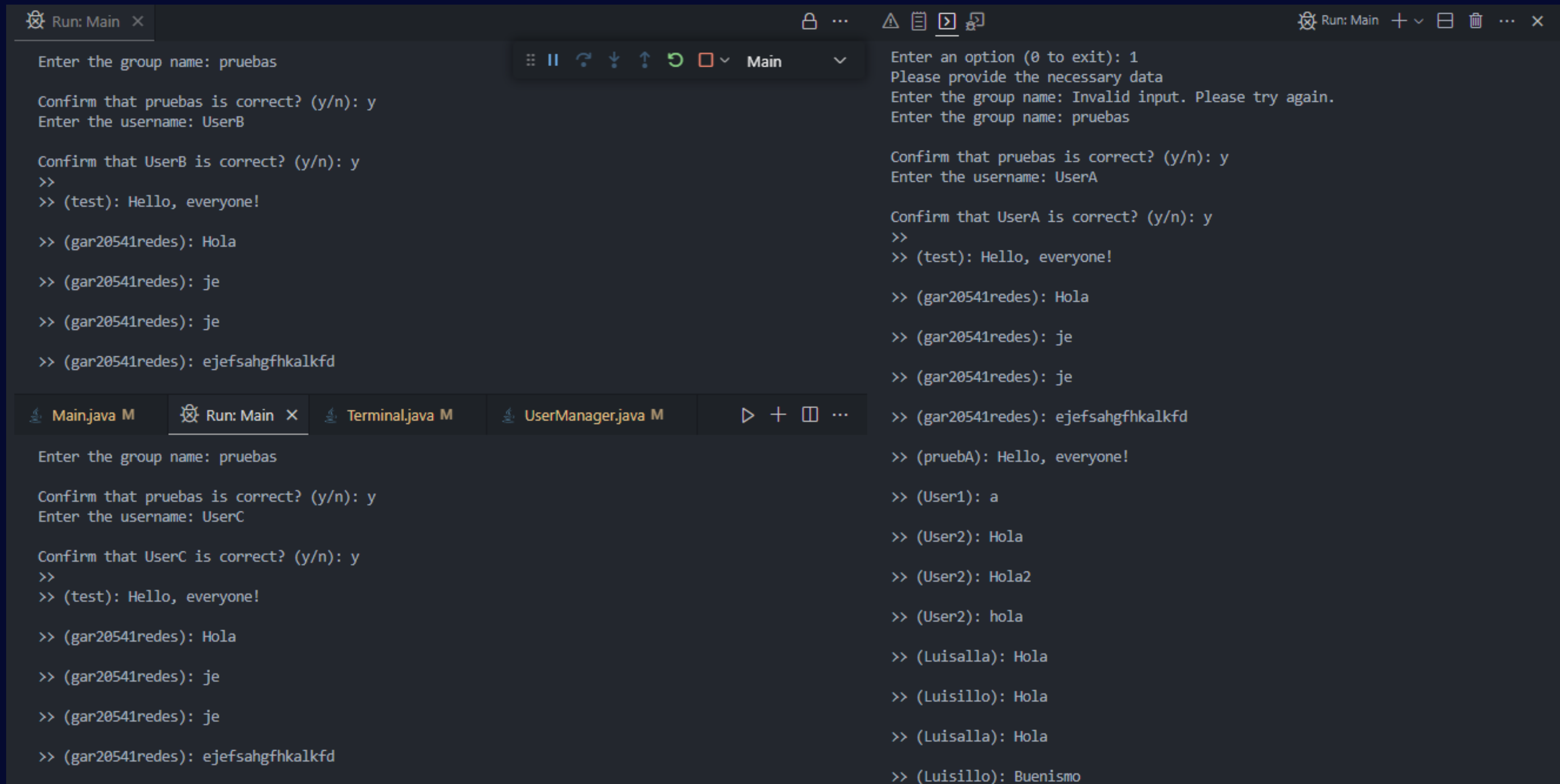
>> Hasta la proxima

>> exit

Chat with test20541@alumchat.xyz ended.

----- Chat Network -----

# GROUP CHAT



The screenshot displays an IDE with two terminal windows. The left window, titled 'Run: Main', shows the execution of a program where a group named 'pruebas' is created. It prompts for a group name, confirms it, asks for a username (UserB), confirms that, and then prints 'Hello, everyone!'. It also shows three messages from 'gar20541redes': 'Hola', 'je', and 'ejefsahgfhkalkfd'. The right window, also titled 'Run: Main', shows a continuation of the program. It prompts for an option (0 to exit), asks for necessary data, and then shows a group named 'pruebas' being created again. It prompts for a username (UserA), confirms that, and then prints 'Hello, everyone!'. It also shows three messages from 'gar20541redes': 'Hola', 'je', and 'ejefsahgfhkalkfd'. Below the messages, it shows three messages from 'pruebA': 'Hello, everyone!', 'a', and 'Hola'. It also shows three messages from 'User2': 'Hola', 'Hola2', and 'hola'. It also shows three messages from 'Luisalla': 'Hola', 'Hola', and 'Hola'. It also shows three messages from 'Luisillo': 'Hola', 'Buenismo', and 'Buenismo'.

```
Enter the group name: pruebas

Confirm that pruebas is correct? (y/n): y
Enter the username: UserB

Confirm that UserB is correct? (y/n): y
>>
>> (test): Hello, everyone!

>> (gar20541redes): Hola

>> (gar20541redes): je

>> (gar20541redes): je

>> (gar20541redes): ejefsahgfhkalkfd

Enter the group name: pruebas

Confirm that pruebas is correct? (y/n): y
Enter the username: UserC

Confirm that UserC is correct? (y/n): y
>>
>> (test): Hello, everyone!

>> (gar20541redes): Hola

>> (gar20541redes): je

>> (gar20541redes): je

>> (gar20541redes): ejefsahgfhkalkfd

Enter an option (0 to exit): 1
Please provide the necessary data
Enter the group name: Invalid input. Please try again.
Enter the group name: pruebas

Confirm that pruebas is correct? (y/n): y
Enter the username: UserA

Confirm that UserA is correct? (y/n): y
>>
>> (test): Hello, everyone!

>> (gar20541redes): Hola

>> (gar20541redes): je

>> (gar20541redes): je

>> (gar20541redes): ejefsahgfhkalkfd

>> (pruebA): Hello, everyone!

>> (User1): a

>> (User2): Hola

>> (User2): Hola2

>> (User2): hola

>> (Luisalla): Hola

>> (Luisillo): Hola

>> (Luisalla): Hola

>> (Luisillo): Buenismo
```

# GROUP CHAT

```
Run: Main X
```

```
>> (UserA): Mensajes
>> (UserA): 22
>> (UserA): de
>> (UserA): Agosto
>> (UserA): del
>> (UserA): 2023
ok
>>
>> (UserB): ok
>>
>> (UserC): ok

```

```
Participant joined: pruebas
Participant joined: pruebas
Hola
>>
>> (UserA): Hola
>>
>> (UserB): Hola
>>
>> (UserC): Hola
Envio
>>
>> (UserA): Envio
de
>>
>> (UserA): de
Mensajes
>>
>> (UserA): Mensajes
22
>>
>> (UserA): 22
de
>>
>> (UserA): de
Agosto
>>
>> (UserA): Agosto
del
>>
>> (UserA): del
2023
>>
>> (UserA): 2023
>>
>> (UserB): ok
>>
>> (UserC): ok

```

```
Main.java M Run: Main X Terminal.java M UserManager.java M
```

```
main* 51 0t 0 0 0 Live Share GitLens Pro (Trial) Git Graph
```

```
Go Live Rsync: 1
```

# 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
█
```

```
test.txt x
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
```

```
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: █
```



# 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

- Investigué 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