



Message Broker Project

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Ejemplo de funcionamiento

Inicio de sesión

The screenshot shows an IDE interface. At the top, a tab labeled 'log.txt' is open. Below it, a 'Logs' panel displays a log entry: '2023-06-12 - 17:25:01: Initialized gRPC server in port 50051.' The bottom panel is divided into three sections: 'PROBLEMS', 'OUTPUT', and 'DEBUG CONSOLE'. The 'DEBUG CONSOLE' section is active and shows three separate login prompts for 'Ariel', 'Priscila', and 'Dylan'.

```
----- LOGIN CLIENT -----
Please enter your username

Username: Ariel

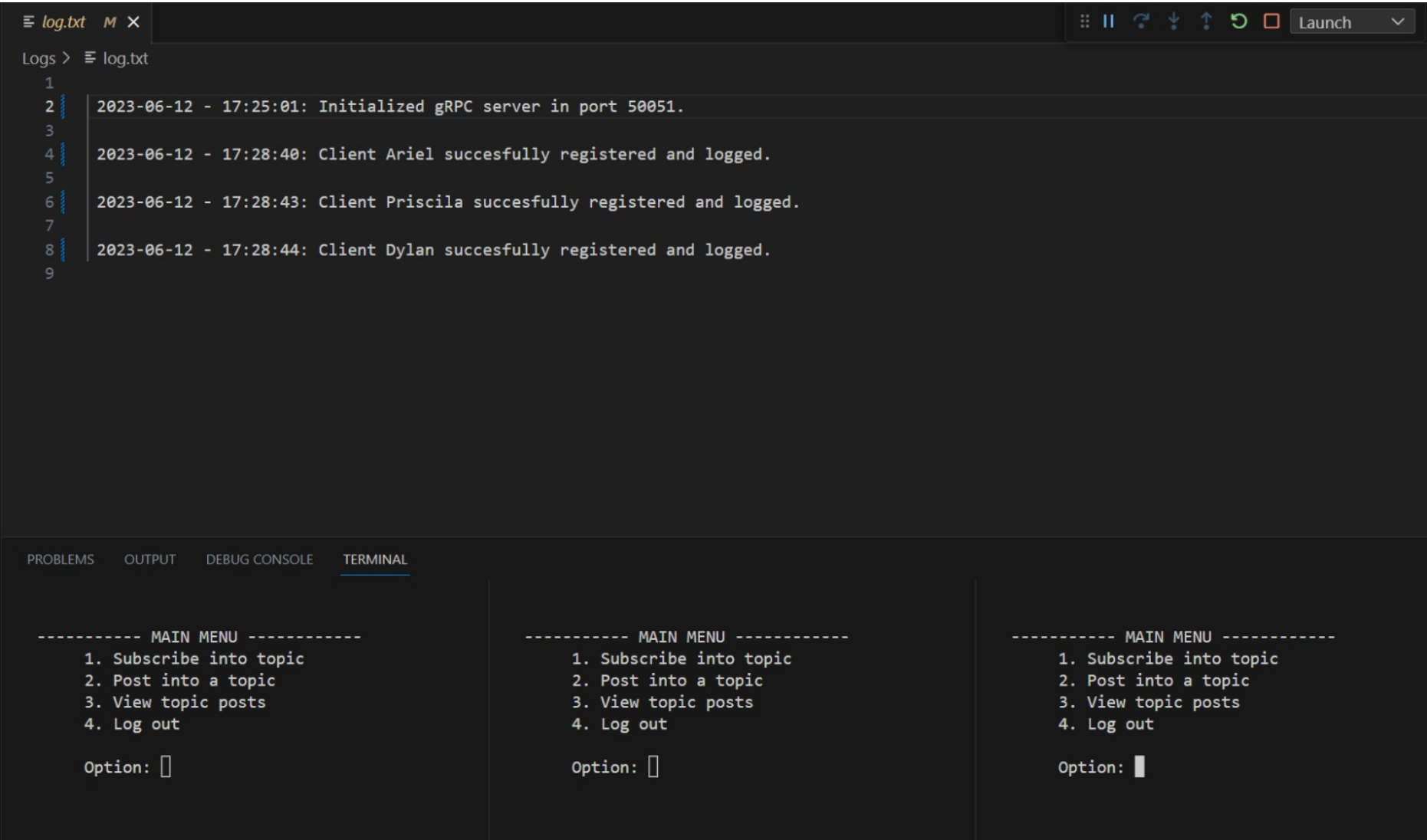
----- LOGIN CLIENT -----
Please enter your username

Username: Priscila

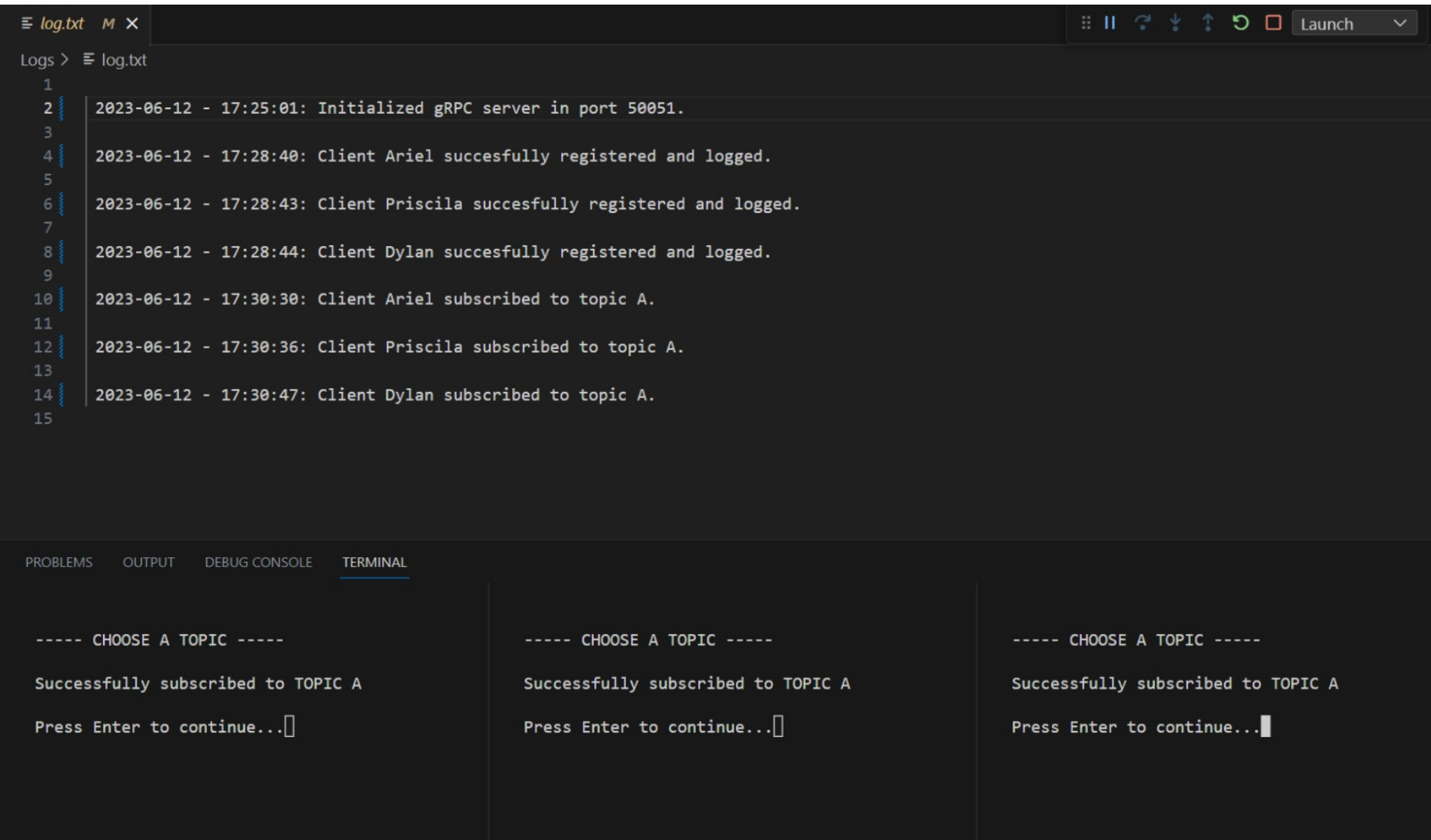
----- LOGIN CLIENT -----
Please enter your username

Username: Dylan
```

Menú principal



Subscripción a tópico



Posteo de mensaje

log.txt

M

X

Launch

Logs > log.txt

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2023-06-12 - 17:25:01: Initialized gRPC server in port 50051.

2023-06-12 - 17:28:40: Client Ariel succesfully registered and logged.

2023-06-12 - 17:28:43: Client Priscila succesfully registered and logged.

2023-06-12 - 17:28:44: Client Dylan succesfully registered and logged.

2023-06-12 - 17:30:30: Client Ariel subscribed to topic A.

2023-06-12 - 17:30:36: Client Priscila subscribed to topic A.

2023-06-12 - 17:30:47: Client Dylan subscribed to topic A.

2023-06-12 - 17:31:58: Ariel posted in topic A: Hola a todos!

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

----- POST IN TOPIC A -----

Post message: Hola a todos!

Successfully posted.

Exit? y/n :

----- MAIN MENU -----
1. Subscribe into topic
2. Post into a topic
3. View topic posts
4. Log out

Option:

----- MAIN MENU -----
1. Subscribe into topic
2. Post into a topic
3. View topic posts
4. Log out

Option:

Envío de mensajes en cola

log.txt

M

X

Launch

Logs > log.txt

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2023-06-12 - 17:32:53: Ariel is listening to Topic A messages.

2023-06-12 - 17:32:54: Message from topic A to client Ariel has been dequeued.

2023-06-12 - 17:33:12: Priscila is listening to Topic A messages.

2023-06-12 - 17:33:13: Message from topic A to client Priscila has been dequeued.

2023-06-12 - 17:33:43: Dylan posted in topic A: Hola, es un gusto!

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

----- POSTS IN TOPIC A -----
Press Ctrl + C to exit

You: Hola a todos!
Dylan: Hola, es un gusto!

----- POSTS IN TOPIC A -----
Press Ctrl + C to exit

Ariel: Hola a todos!
Dylan: Hola, es un gusto!

----- POST IN TOPIC A -----

Post message: Hola, es un gusto!

Successfully posted.

Exit? y/n :

Envío de mensajes en vivo

log.txt M X

Launch

Logs > log.txt

28 2023-06-12 - 17:35:05: Dylan is listening to Topic A messages.

29

30 2023-06-12 - 17:35:07: Message from topic A to client Dylan has been dequeued.

31

32 2023-06-12 - 17:35:07: Message from topic A to client Dylan has been dequeued.

33

34 2023-06-12 - 17:35:26: Priscila stopped listening to any topic messages.

35

36 2023-06-12 - 17:36:06: Priscila posted in topic A: Hola Ariel y Dylan!

37

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

----- POSTS IN TOPIC A -----
Press Ctrl + C to exit

You: Hola a todos!
Dylan: Hola, es un gusto!
Priscila: Hola Ariel y Dylan!
█

----- POST IN TOPIC A -----

Post message: Hola Ariel y Dylan!

Successfully posted.

Exit? y/n : █

----- POSTS IN TOPIC A -----
Press Ctrl + C to exit

Ariel: Hola a todos!
You: Hola, es un gusto!
Priscila: Hola Ariel y Dylan!
█

Chats finales

----- POSTS IN TOPIC A -----
Press Ctrl + C to exit

You: Hola a todos!
Dylan: Hola, es un gusto!
Priscila: Hola Ariel y Dylan!
█

----- POSTS IN TOPIC A -----
Press Ctrl + C to exit

Ariel: Hola a todos!
Dylan: Hola, es un gusto!
You: Hola Ariel y Dylan!
█

----- POSTS IN TOPIC A -----
Press Ctrl + C to exit

Ariel: Hola a todos!
You: Hola, es un gusto!
Priscila: Hola Ariel y Dylan!
█

Referencias bibliográficas

- **GRPC y .proto:** <https://grpc.io/docs/what-is-grpc/introduction/>
- **GRPC Python:** <https://grpc.io/docs/languages/python/>
- **Threads y lock:** <https://www.educative.io/answers/what-are-locks-in-python>
- **Concurrent Futures:** <https://docs.python.org/3/library/concurrent.futures.html>
- **Archivos .txt para log:** <https://es.stackoverflow.com/questions/563626/crear-archivo-txt-en-descargas-con-python>
- **Archivos .pickle para persistencia:** <https://www.datacamp.com/tutorial/pickle-python-tutorial>
- **Keyboard interruption:** <https://linuxhint.com/python-keyboardinterrupt/#:~:text=A Keyboard Interrupt is nothing,the execution of the program>