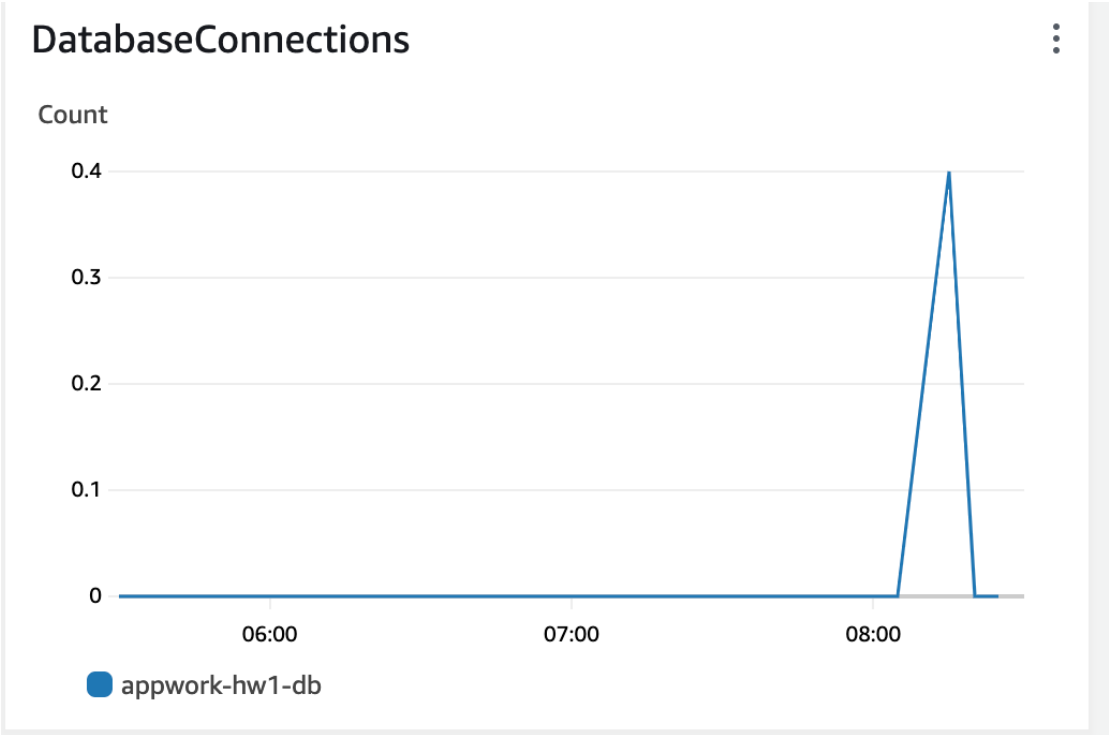
remote-report-hw1

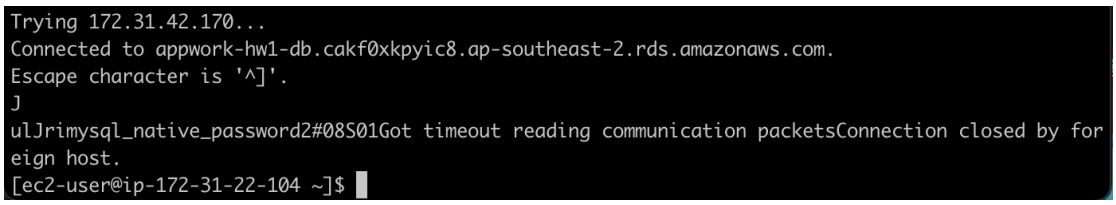
Elastic IP address : 172.31.22.104
Database name : appwork-hw1-db
Change summary :

Understanding Check

1. How do you make sure that you can connect into your RDS? And please post the successfully connected screen shot.

I can make sure I connect to the DB by the AWS panel and the terminal and Dbeaver show connect success.





2. Without Elastic IP, if we stop the EC2 instance and start it again, would the IP address change? Why?

Yes, because without Elastic IP, stopping and restarting an EC2 instance would be assigned a new public IP address with the reason that AWS will dynamic allocate IP from it IP pool.

3.What's the purpose of using Elastic IP?

So we will have static public IP address that can be associated with any future application we use. It is convenient that no need to change connect config every time.

Async and Callback function :

Based on the result of experiment, what's the differences of sync/async functions we can tell?

The async is faster than the sync if you perform three serial connection.

Situations Where Asynchronous Functions are Useful :

1. User interfaces that need to remain responsive and interactive while performing tasks like data fetching, file reading, or any IO operations.

2.API Requests: When making numerous API requests, async functions can prevent the application from being held up by slow or unresponsive APIs.

(If we need the code execute in serial order, use defer)

We've known the 3 ways to implement async functions, how do we choose from them and what are their pros and cons?

1. Callback:
    - Pros: Straightforward for simple tasks; allows more control over handling results errors at each callback level. (little faster but I think that might be internet issue)
    - Cons: Can lead to "callback hell" with complex, nested callbacks, making the code difficult to read and maintain.

1. Promise:
    - Pros: Cleaner syntax than callbacks; can chain `.then()` for multiple async operations; improves readability.
    - Cons: Still can be somewhat complex with many nested promises;

1. Async/Await:
    - Pros: Provides a synchronous style of writing code, making it cleaner and easier to read; simplifies error handling with try/catch blocks.
    - Cons: Can sometimes abstract too much of the process, making it harder to understand the flow;

Other Observations

The time is all > 5000 ms, I think there is a clock delay response 5000ms or 4000 ms .