THEORETICAL

1. Explain some of the practical benefits of using the cloud

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What is the cloud?

The cloud is not a physical entity, but instead is a vast network of **remote servers** around the globe that are hooked together and meant to operate as a single ecosystem. These servers are designed to either store and manage data, run applications, or deliver content or a service such as streaming videos, web mail, office productivity software, or social media. Instead of accessing files and data from a local or personal computer, you are accessing them online from any Internet-capable device—the information will be available anywhere you go and anytime you need it.

Benefits of using the cloud

1. ### Efficiency and Cost Reduction:

   By using cloud infrastructure, you don't have to spend huge amounts of money on purchasing and maintaining equipment. This drastically reduces CAPEX costs and Total Cost of Ownership (TCO). You don't have to invest in hardware, facilities, utilities, or building out a large data center to grow your business. You do not even need large IT teams to handle your cloud data center operations, as you can enjoy the expertise of your cloud provider's staff.

   Cloud also reduces costs related to downtime. Since downtime is rare in cloud systems, this means you don't have to spend time and money on fixing potential issues related to downtime.

2. ### Disaster Recovery:

   Having production instances running on multiple cloud availability zones or regions allow for faster recovery from disasters: if your application is deployed on multiple locations and for some reason one region goes down – the traffic can automatically fail over to the working regions without any interruptions to the end-users.

3. Scalability:

Using the cloud is a great solution because it enables enterprises to efficiently — and quickly — scale up/down their IT departments, according to business demands.

Cloud-based solutions are ideal for businesses with growing or fluctuating bandwidth demands. If your business demands increase, you can easily increase your cloud capacity without having to invest in physical infrastructure. This level of agility can give businesses using cloud computing a real advantage over competitors.

This scalability minimizes the risks associated with in-house operational issues and maintenance. You have high-performance resources at your disposal with professional solutions and zero up-front investment. Scalability is probably the greatest advantage of the cloud.
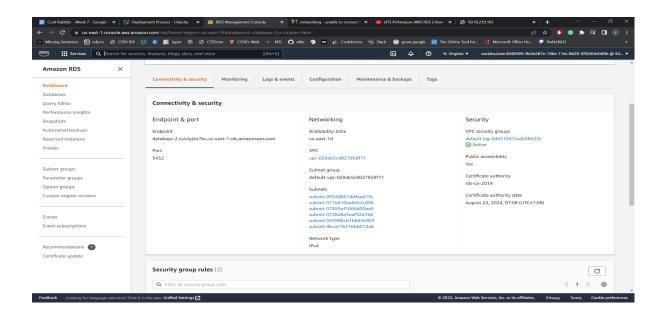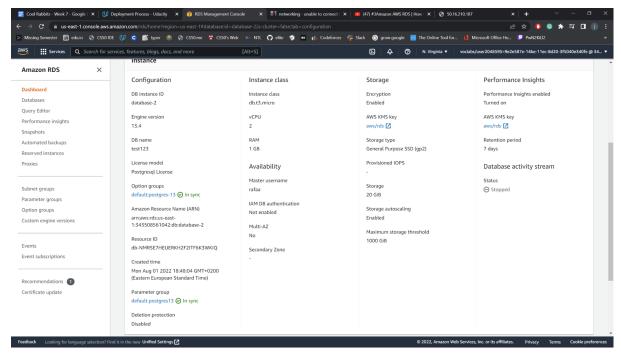

[Mohamed Raafat Abdel Aziz]

PRACTICAL

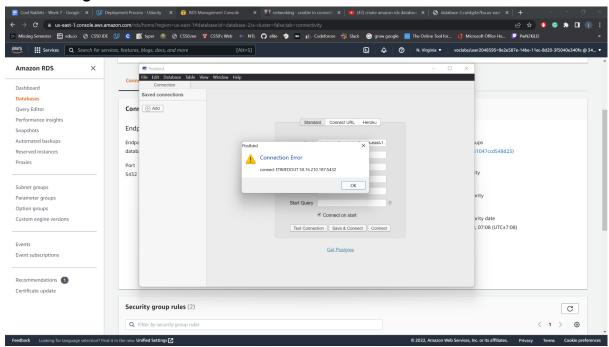## 1. connect our project to the amazon rds database

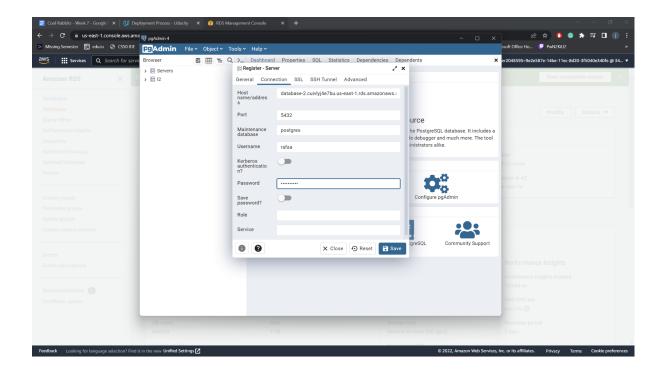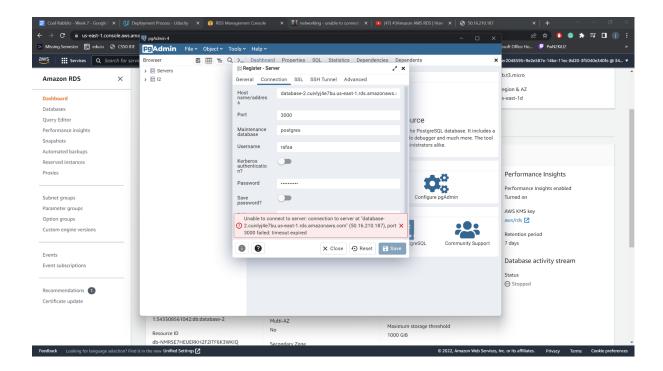I finished my search ▾

created a database first

then tried to connect to that database but got a timeout for some reason i
couldn't figure out

tried connecting from pg admin and got the same error

tried editing the server port to 3000 but also connection timed out

THEORETICAL

1. Explain some of the practical benefits of using the cloud

First of all, what is the cloud?

the cloud is a set of servers that are accessed over the internet along with the software and databases that run on those servers, servers are located in data centers that are distributed all over the world
EX: Gmail stores emails and attachments in google drive cloud storage allowing users with an internet connection to access those files

So now we can ask, what are the advantages of using the cloud?

Back up and restore data

when the data is in the cloud it is easy to backup data and restores that data using the cloud

Improved collaboration

improves the workflow of a team by allowing team mate to to quickly as easily share information in the cloud via shared storage

Excellent accessibility

the cloud allows us to quickly and easily access stored information anywhere at any time you want, cloud increases the team productivity by always assuring that files are accessible

Low maintenance cost

the cloud reduces both software and hardware maintenance costs for the organization

pay-per-use model

the user pays only for what he is using and the service in the cloud can expand or shrink automatically based on the traffic for the site making it cost-effective

Unlimited storage capacity

the cloud offers a huge amount of storage allowing organizations to add whatever they want without any limits

Data security

this is one of the biggest advantages of the cloud, the cloud offers state-of-the-art security to always make sure the data is safely stored and handled