[Beshoy Ayad AbdelMalak]

THEORETICAL: Explain some of the practical benefits of using the cloud

According to https://cloudacademy.com/

10 Benefits of Using Cloud Storage

1. Usability and accessibility

Most all of the cloud services come with an easy-to-use user interface and provide a feature of drag and drop

2. Safety

The cloud storage saves your data across the redundant servers, so even if one of the data centers gets collapsed, your data will be managed by the other data centers, which make your data safe and supervised.

3. Cost-efficient

By using online data storage, the enterprise reduces the expenses of internal resources. With this technology, the company itself does not need any inner power and support to manage and store their data.

4. Convenient sharing of files

Every cloud storage service provides file-sharing features, which helps you to share your file with other users. You can either send a file to another user or invite multiple users to view your data

5. Automation

Cloud storage works like a hard disk on your system, and if you want to store any file in the cloud, it will not temper any ongoing task. There may be more than one user using a cloud storage service, and the current responsibility of one user would not affect the task of another since it is all is managed and automated by the cloud vendor

6. Multiple users

The same cloud environment can have more than one use associated with it. With cloud storage, multiple users can collaborate with the common file. For instance, you can give access to your files to multiple users so they can access and edit your file. The authorized person can access your file from any part of the world in real-time.

7. Synchronization

Every storage vendor gives the sync feature. With synchronization, you can sync the cloud storage data with any device you want.

8. Convenient

You do not need any hard disk or flash drive to access or view your data — all is done online.

9. Scalable

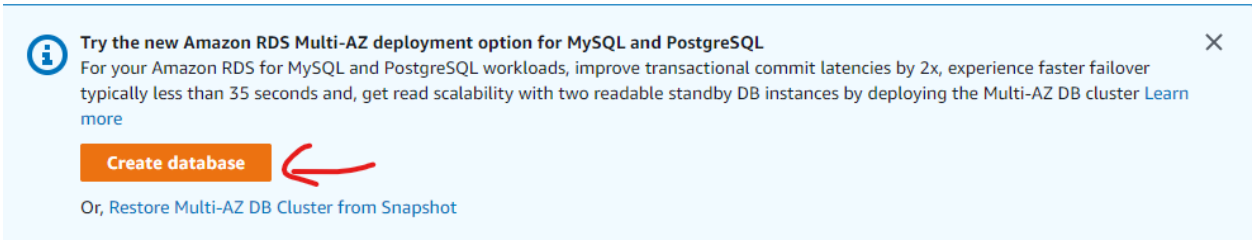
Cloud storage is scalable and flexible. If the current plan of storage is not enough, you can upgrade the service plan. And you do not need to move any data from one location to another, the extra space will be added to your storage environment with some extra features.

10. Disaster recovery

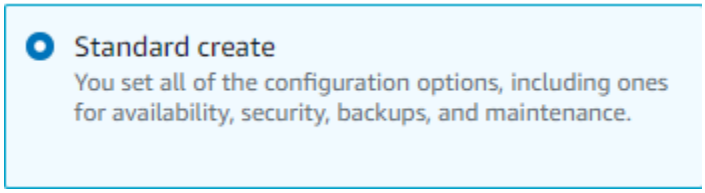
Every business has a backup storage plan where they store all the copies of their data. If they encounter any collapse or loss of data problem, they can retrieve data from their backup plan

PRACTICAL: Connect our project to an Amazon RDS database

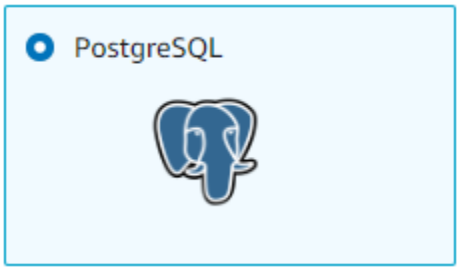
- Select Create Database



- Select Standard Create



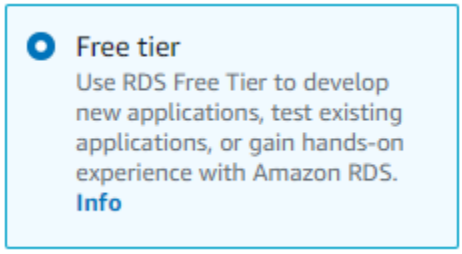
- Select Database Engine “in my case PostGreSQL”



- Select Version

My recommendation

- Select Free Tier



- Type DB instance identifier

“that is unique for all DB instances owned by your AWS account in the current region. DB instance identifier is case insensitive, but stored as all lower-case, as in "mydbinstance"

DB instance identifier Info

Type a name for your DB instance. The name must be unique across all DB instances owned by your AWS account in the current AWS Region.

database-1

The DB instance identifier is case-insensitive, but is stored as all lowercase (as in "mydbinstance"). Constraints: 1 to 60 alphanumeric characters or hyphens. First character must be a letter. Can't contain two consecutive hyphens. Can't end with a hyphen.

- Master Username and password :
  "In my case using postgres for poth "

▼ Credentials Settings

Master username Info

Type a login ID for the master user of your DB instance.

postgres

1 to 16 alphanumeric characters. First character must be a letter.

☐ Auto generate a password

Amazon RDS can generate a password for you, or you can specify your own password.

Master password Info

Constraints: At least 8 printable ASCII characters. Can't contain any of the following: / (slash), '(single quote), "(double quote) and @ (at sign).

Confirm password Info

- select DB.t2 for testing

Instance configuration

The DB instance configuration options below are limited to those supported by the engine that you selected above.

DB instance class Info

○ Standard classes (includes m classes)

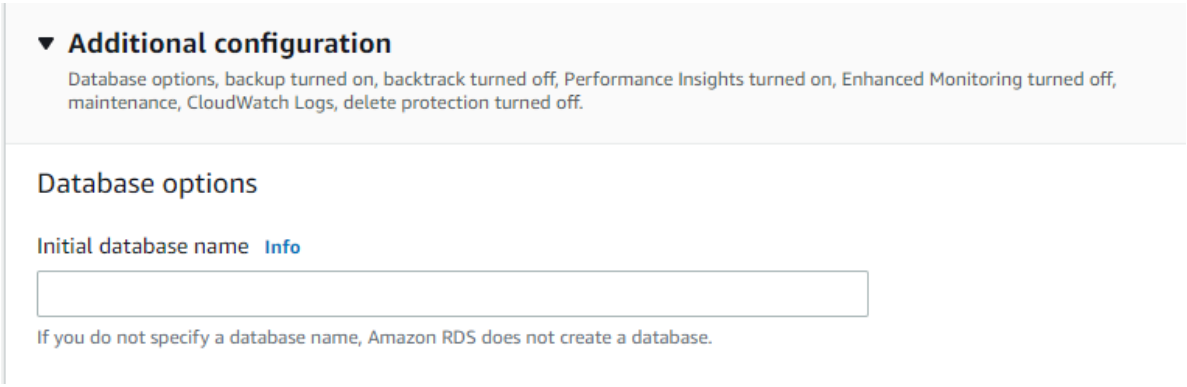
○ Memory optimized classes (includes r and x classes)

◉ Burstable classes (includes t classes)

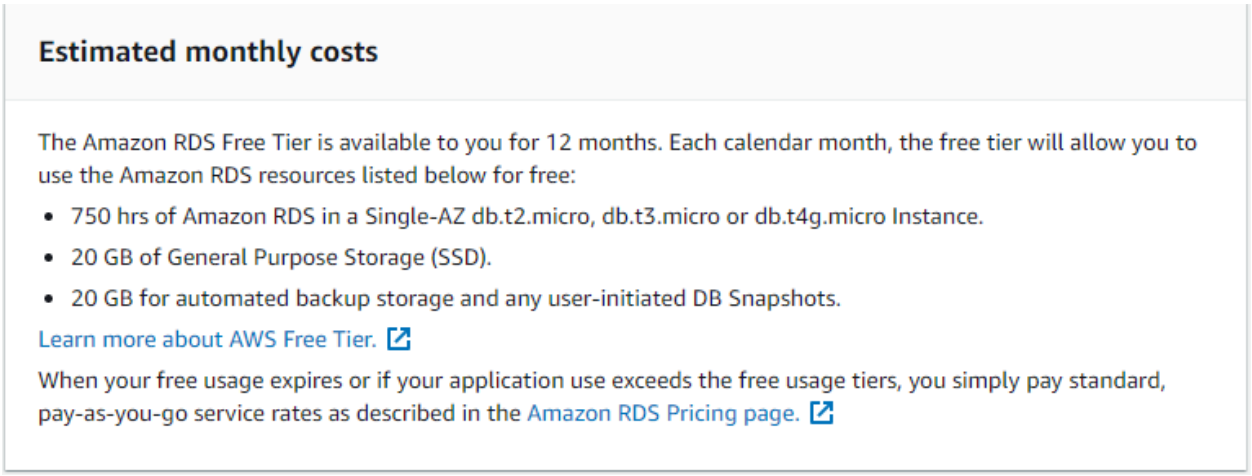
db.t2.micro
1 vCPUs 1 GiB RAM Not EBS Optimized

◯ Include previous generation classes

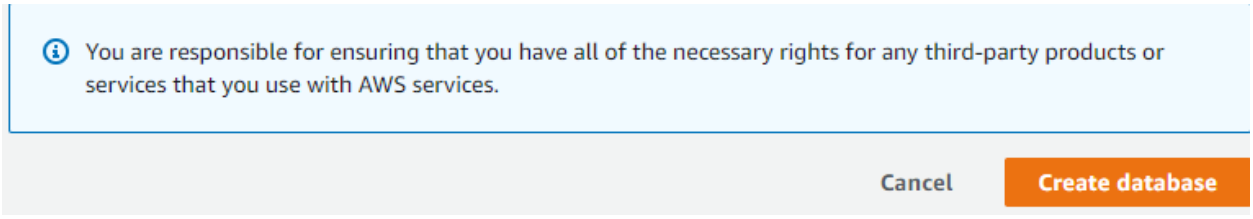
- Type Database name in Additional Configuration



- For testing be sure that you are in free tier and there is no add cost



- Click Create Database



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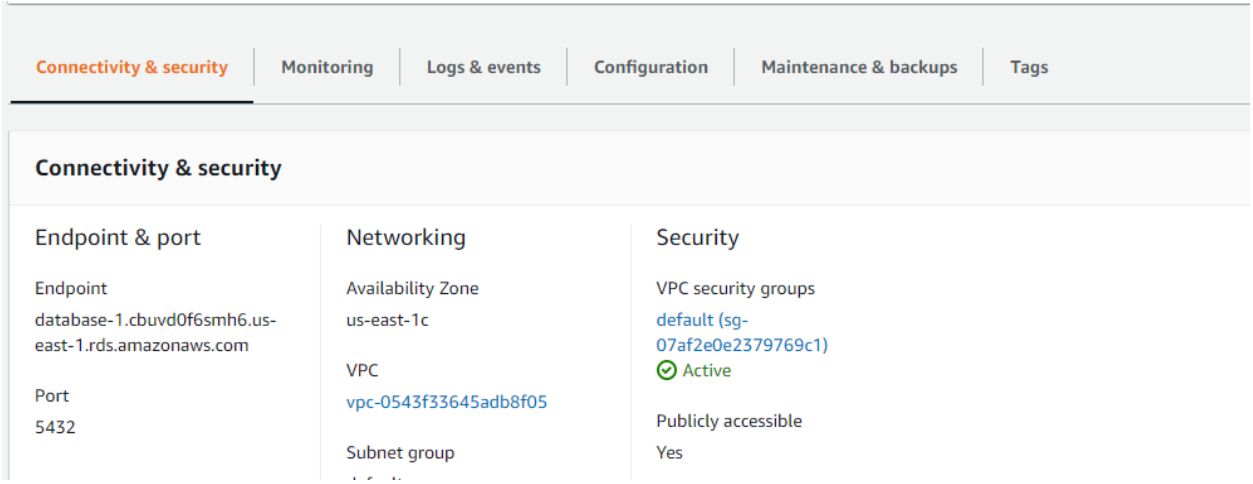
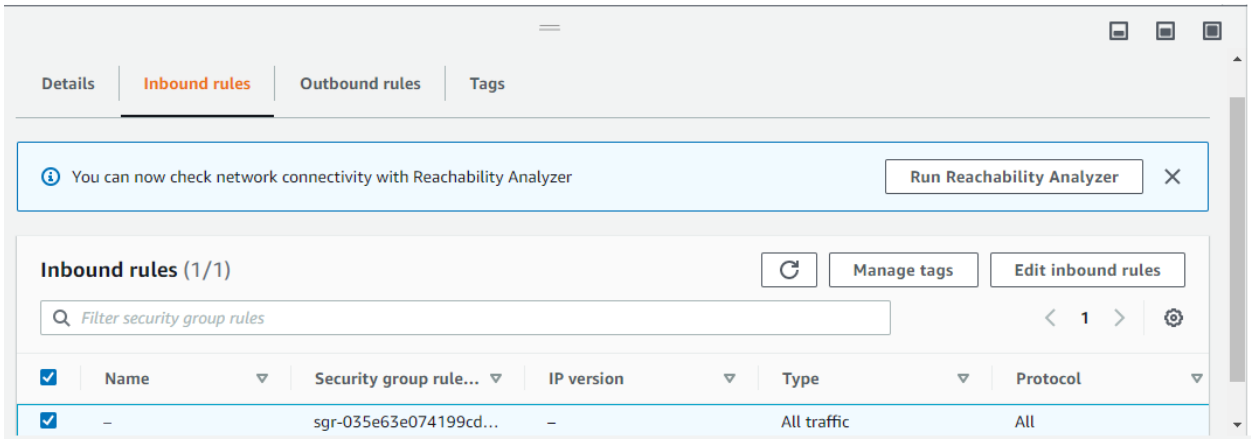
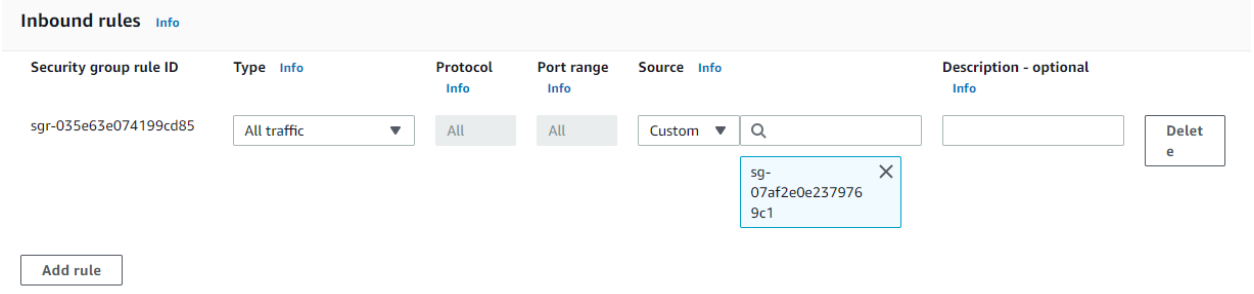
- If you face connection error check DB access
  Go to VPC Security groups



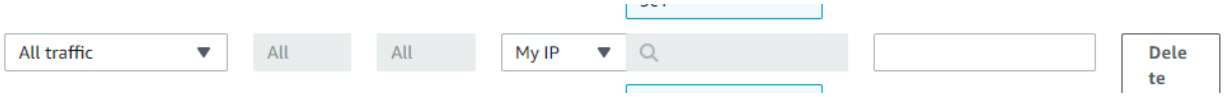
- Click inbound rules
- Click Edit inbound Rule



- Add rule



Create the following Role



Connection is now successful