

Создал кластер баз данных cluster-jun

RDS > Databases > cluster-jun

cluster-jun

ModifyActions

Summary

DB identifier cluster-jun	CPU <div>5.16%</div>	Status Available	Class db.t3.micro
Role Instance	Current activity <div>0.00 sessions</div>	Engine PostgreSQL	Region & AZ eu-central-1c

Connectivity & security

<div>Endpoint & port</div> <div>Endpoint cluster-jun.cfcd7ujkubpx.eu-central-1.rds.amazonaws.com</div> <div>Port 5432</div>	<div>Networking</div> <div>Availability Zone eu-central-1c</div> <div>VPC vpc-0053d2fdcf6346977</div> <div>Subnet group default-vpc-0053d2fdcf6346977</div> <div>Subnets subnet-0cd79f848705a94bd subnet-08df6c5112abee549 subnet-0026d3df6cd112a50</div> <div>Network type IPv4</div>	<div>Security</div> <div>VPC security groups PostgreSQL (sg-020374ee9a4723fa8) Active</div> <div>Publicly accessible Yes</div> <div>Certificate authority rds-ca-2019</div> <div>Certificate authority date August 22, 2024, 20:08 (UTC+03:00)</div>
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Security group rules (2)

Filter by security group rules

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Security group	Type	Rule
PostgreSQL (sg-020374ee9a4723fa8)	CIDR/IP - Inbound	46.53.180.210/32
PostgreSQL (sg-020374ee9a4723fa8)	CIDR/IP - Outbound	0.0.0.0/0

Replication (1)

Filter by replication

< 1 > ⚙

DB identifier	Role	Region & AZ	Replication source	Replication state	Lag
cluster-jun	Instance	eu-central-1c	-	-	-

Connectivity & security

Monitoring

Logs & events

Configuration

Maintenance & backups

Tags

Instance

Configuration

DB instance ID
cluster-jun

Engine version
13.7

DB name
-

License model
Postgresql License

Option groups
default:postgres-13 In sync

Amazon Resource Name (ARN)
arn:aws:rds:eu-central-1:684882578868:db:cluster-jun

Resource ID
db-DFYKECH5ZHBG6WQNOURJ7XDMGM

Created time
December 21, 2022, 14:11 (UTC+03:00)

Parameter group
default:postgres13 In sync

Deletion protection
Disabled

Instance class

Instance class
db.t3.micro

vCPU
2

RAM
1 GB

Availability

Master username
jun

IAM DB authentication
Not enabled

Multi-AZ
No

Secondary Zone
-

Storage

Encryption
Enabled

AWS KMS key
[aws/rds](#)

Storage type
General Purpose SSD (gp2)

Storage
20 GiB

Provisioned IOPS
-

Storage throughput
-

Storage autoscaling
Enabled

Maximum storage threshold
1000 GiB

Performance Insights

Performance Insights enabled
Turned on

AWS KMS key
[aws/rds](#)

Retention period
7 days

Подключился к кластеру баз данных с помощью pgAdmin 4

pgAdmin 4

File Object Tools Help

Browser

Servers (1)
cluster_jun

Dashboard Properties SQL Statistics Dependencies Dependents Processes

Server sessions

Transactions per second

Tuples in

Tuples out

Block I/O

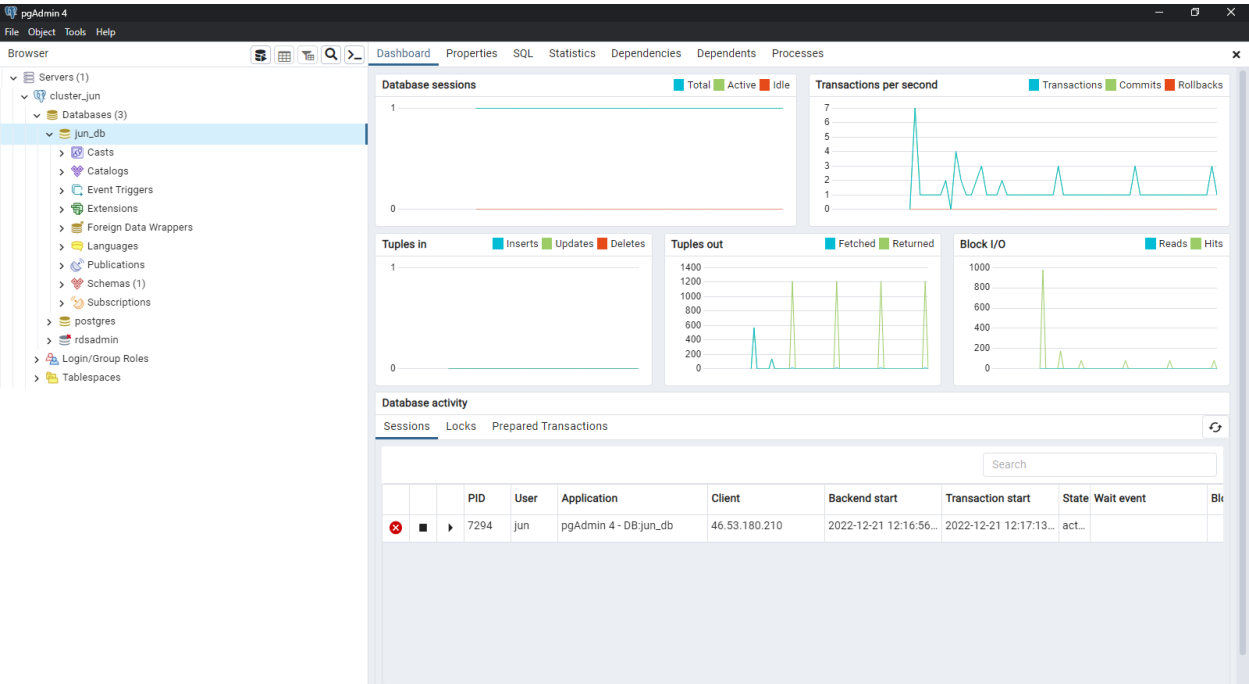
Server activity

Sessions Locks Prepared Transactions Configuration

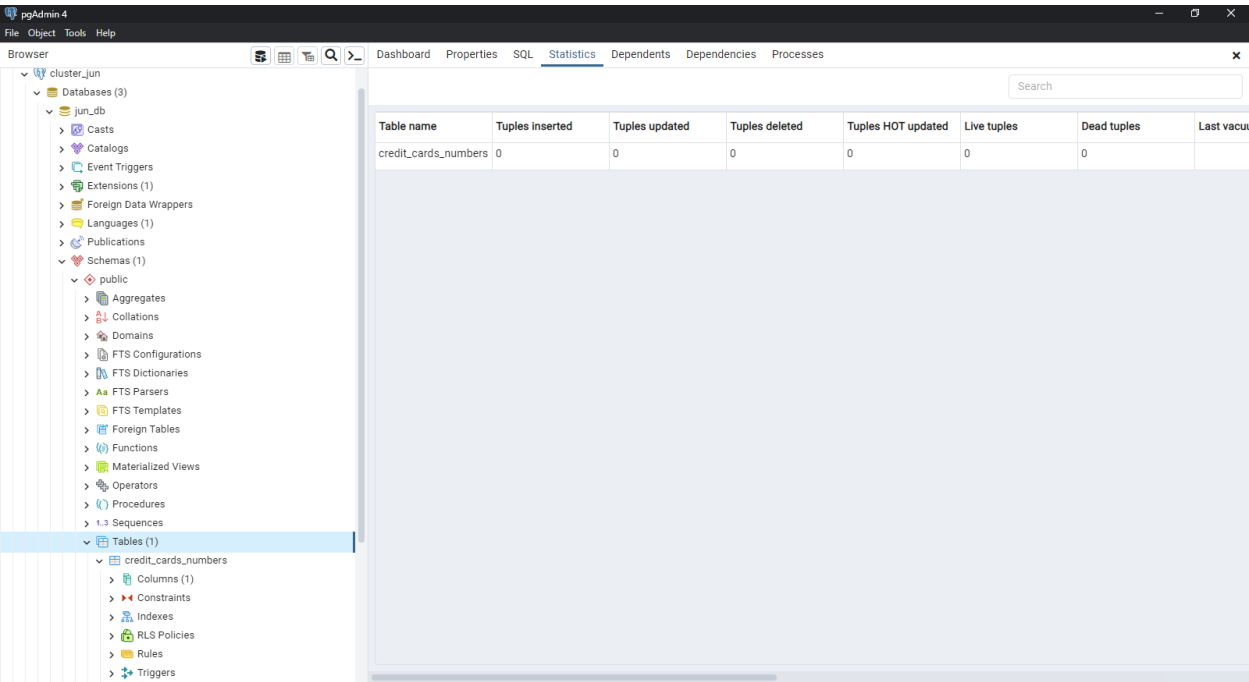
Search

		PID	Database	User	Application	Client	Backend start	Transaction start	State	Wait ev
✖	■	▶ 367					2022-12-21 11:10:11...		Activity	
✖	■	▶ 368					2022-12-21 11:10:11...		Activity	
✖	■	▶ 371		rdsadmin			2022-12-21 11:10:11...		Activity	
✖	■	▶ 541	rdsadmin	rdsadmin		127.0.0.1	2022-12-21 11:11:28...		idle	Client:
✖	■	▶ 615	rdsadmin	rdsadmin	PostgreSQL JDBC D...	127.0.0.1	2022-12-21 11:12:21...		idle	Client:
✖	■	▶ 5241	postgres	jun	pgAdmin 4 - DB:post...	46.53.180.210	2022-12-21 11:57:10...	2022-12-21 11:57:11...	act...	

Создание базы данных jun_db



Создание таблицы credit_cards_numbers



Подключение к кластеру баз данных с помощью командной строки терминала Linux через терминальный клиент psql

```
root@ubuntu:~# psql -h cluster-jun.cefd7ujkubpx.eu-central-1.rds.amazonaws.com -U jun -d postgres
Password for user jun:
psql (14.5 (Ubuntu 14.5-0ubuntu0.22.04.1), server 13.7)
SSL connection (protocol: TLSv1.2, cipher: ECDHE-RSA-AES256-GCM-SHA384, bits: 256, compression: off)
Type "help" for help.

postgres=> \l

      List of databases
  Name | Owner  | Encoding | Collate | Ctype  | Access privileges
-----+-----+-----+-----+-----+-----
 jun_db | jun    | UTF8     | en_US.UTF-8 | en_US.UTF-8 |
 postgres | jun    | UTF8     | en_US.UTF-8 | en_US.UTF-8 |
 rdsadmin | rdsadmin | UTF8     | en_US.UTF-8 | en_US.UTF-8 | rdsadmin=CTc/rdsadmin+
          |          |          |          |          | rdstopmgr=Tc/rdsadmin
          |          |          |          |          | =c/rdsadmin +
 template0 | rdsadmin | UTF8     | en_US.UTF-8 | en_US.UTF-8 | rdsadmin=CTc/rdsadmin
          |          |          |          |          | =c/jun +
 template1 | jun     | UTF8     | en_US.UTF-8 | en_US.UTF-8 | jun=CTc/jun
(5 rows)

postgres=> \q
root@ubuntu:~# _
```

Проверка наличия созданной таблицы credit_cards_numbers

```
root@ubuntu:~# psql -h cluster-jun.cefd7ujkubpx.eu-central-1.rds.amazonaws.com -U jun -d jun_db
Password for user jun:
psql (14.5 (Ubuntu 14.5-0ubuntu0.22.04.1), server 13.7)
SSL connection (protocol: TLSv1.2, cipher: ECDHE-RSA-AES256-GCM-SHA384, bits: 256, compression: off)
Type "help" for help.

jun_db=> \l

      List of databases
  Name | Owner  | Encoding | Collate | Ctype  | Access privileges
-----+-----+-----+-----+-----+-----
 jun_db | jun    | UTF8     | en_US.UTF-8 | en_US.UTF-8 |
 postgres | jun    | UTF8     | en_US.UTF-8 | en_US.UTF-8 |
 rdsadmin | rdsadmin | UTF8     | en_US.UTF-8 | en_US.UTF-8 | rdsadmin=CTc/rdsadmin+
          |          |          |          |          | rdstopmgr=Tc/rdsadmin
          |          |          |          |          | =c/rdsadmin +
 template0 | rdsadmin | UTF8     | en_US.UTF-8 | en_US.UTF-8 | rdsadmin=CTc/rdsadmin
          |          |          |          |          | =c/jun +
 template1 | jun     | UTF8     | en_US.UTF-8 | en_US.UTF-8 | jun=CTc/jun
(5 rows)

jun_db=> \dt

      List of relations
 Schema | Name | Type | Owner
-----+-----+-----+-----
 public | credit_cards_numbers | table | jun
(1 row)

jun_db=> \q
root@ubuntu:~# _
```

Создал snapshot

Snapshots (2)

Restore

Remove

Take snapshot

Filter by snapshot name

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1

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<input type="checkbox"/>	Snapshot name	Snapshot creation time	Status	Snapshot type	Snapshot database time
<input type="checkbox"/>	for-task	December 21, 2022, 17:35 (UTC+03:00)	Available	Manual	-
<input type="checkbox"/>	rds:cluster-jun-2022-12-21-11-12	December 21, 2022, 14:12 (UTC+03:00)	Available	Automated	-

Удалил базу cluster_jun

Databases

Group resources

Modify

Actions

Restore from S3

Create database

Filter by databases

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<input type="checkbox"/>	DB identifier	Role	Engine	Region & AZ	Size	Status	CPU
<input type="radio"/>	cluster-jun	Instance	PostgreSQL	eu-central-1c	db.t3.micro	Deleting	4.88%

Восстановил базу cluster_jun из snapshot'a

cluster-jun

Modify

Actions

Summary

DB identifier

cluster-jun

CPU

5.11%

Status

Available

Class

db.t3.micro

Role

Instance

Current activity

0 Connections

Engine

PostgreSQL

Region & AZ

eu-central-1a

Connectivity & security

Monitoring

Logs & events

Configuration

Maintenance & backups

Tags

Connectivity & security

Endpoint & port

Endpoint

cluster-jun.cefd7ujkubpx.eu-central-1.rds.amazonaws.com

Port

5432

Networking

Availability Zone

eu-central-1a

VPC

vpc-for-db (vpc-0053d2fdc6346977)

Subnet group

default-vpc-0053d2fdc6346977

Subnets

subnet-0cd79f848705a94bd

subnet-08df6c5112abee549

subnet-0026d3df6cd112a50

Network type

IPv4

Security

VPC security groups

PostgreSQL (sg-020374ee9a4723fa8)

Active

Publicly accessible

Yes

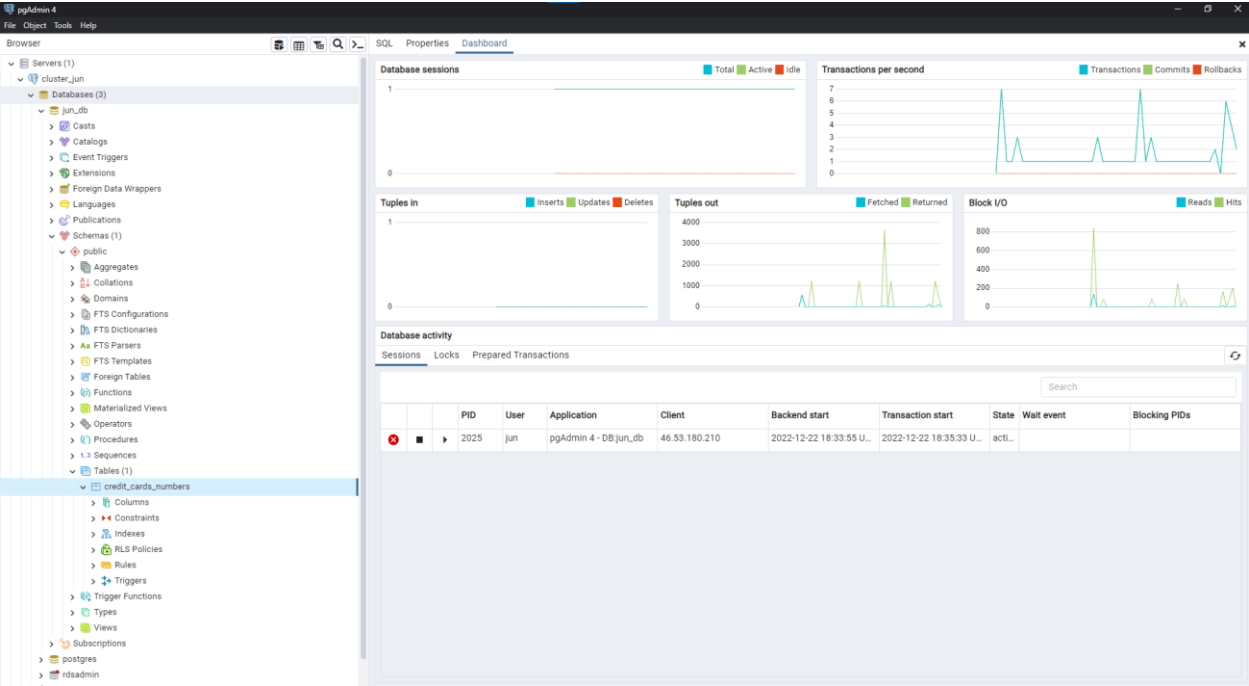
Certificate authority

rds-ca-2019

Certificate authority date

August 22, 2024, 20:08 (UTC+03:00)

Проверил наличие таблицы credit_cards_numbers в pgAdmin 4



Проверил наличие таблицы через терминальный клиент psql

```
root@ubuntu:~# psql -h cluster-jun.cefd7ujkubpx.eu-central-1.rds.amazonaws.com -U jun -d jun_db
Password for user jun:
psql (14.5 (Ubuntu 14.5-0ubuntu0.22.04.1), server 13.7)
SSL connection (protocol: TLSv1.2, cipher: ECDHE-RSA-AES256-GCM-SHA384, bits: 256, compression: off)
Type "help" for help.

jun_db=> \l

          List of databases
  Name      | Owner   | Encoding | Collate | Ctype   | Access privileges
-----+-----+-----+-----+-----+-----
 jun_db     | jun     | UTF8     | en_US.UTF-8 | en_US.UTF-8 |
 postgres   | jun     | UTF8     | en_US.UTF-8 | en_US.UTF-8 |
 rdsadmin   | rdsadmin | UTF8     | en_US.UTF-8 | en_US.UTF-8 | rdsadmin=CTc/rdsadmin+
            |         |         |         |         | rdstopmgr=Tc/rdsadmin
            |         |         |         |         | =c/rdsadmin +
            |         |         |         |         | rdsadmin=CTc/rdsadmin
            |         |         |         |         | =c/jun +
            |         |         |         |         | jun=CTc/jun
(5 rows)

jun_db=> \dt

          List of relations
 Schema |      Name      | Type  | Owner
-----+-----+-----+-----
 public | credit_cards_numbers | table | jun
(1 row)

jun_db=> _
```

Создал Backup vaults для хранения бэкапов бд

Backup vaults (2) Info

Backup vaults are containers where your backups are stored. You can have one default vault or multiple vaults where backups can be stored.

Create backup vault

Filter

Any tag key

Any tag value

< 1 >

Backup vault name	Vault lock status	Recovery points	KMS encryption key ID
backup-db	-	0	c408a6e4-8646-4afa-abea-616f92929a17
Default	-	0	c408a6e4-8646-4afa-abea-616f92929a17

Создал Backup plan

plan-backup-db

DeleteView JSON

Summary

Backup plan name
plan-backup-db
Backup plan ID
98b3b966-0005-4978-a3e7-c0bf1d05ebf8

Version ID
ZDFkYmMzYzktZjdlNC00ZDMwLWExNDQtODhkNzE2ODgzNmly

Last modified
December 23, 2022, 16:23:41 (UTC+03:00)

Last runtime
-

Backup rules (1)

Backup rules specify the backup schedule, backup window, and lifecycle rules.

EditDeleteAdd backup rule

	Name	Backup vault	Destination Backup vault
<input type="radio"/>	backup-db-hourly	backup-db	-

Назначения ресурсов (1)

Resource assignments specify which resources will be backed up by this Backup plan.

DeleteAssign resources

< 1 >

	Name	IAM role ARN	Creation time
<input type="radio"/>	backup-db	arn:aws:iam::684882578868:role/service-role/AWSBackupDefaultServiceRole	December 23, 2022, 16:26:21 (UTC+03:00)

Backup rule

backup-db-hourly

DeleteEdit

Summary

Backup rule name
backup-db-hourly

Frequency
Hourly
At 0 minutes past the hour, every 1 hours, starting at 04:00 PM UTC

Start within
1 hour

Complete within
2 hours

Lifecycle
Never transition to cold storage
Expire after 1 week

Backup vault
backup-db

Tags added to recovery points - optional
-

Появился backup

AWS Backup > Protected resources

Protected resources (1) [Info](#)

Resources backed up by AWS Backup

Filter

< 1 > ⚙

Resource ID	Resource type	Last backup
cluster-jun	RDS	December 23, 2022, 17:00:00 (UTC+03:00)

Create on-demand backup

Resource details [Info](#)

Create on-demand backup

Summary

Resource ID	Resource type	Last backup
cluster-jun	RDS	December 23, 2022, 17:00:00 (UTC+03:00)

Recovery points (4)

Filter by recovery point ID

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Restore

< 1 > ⚙

Recovery point ID	Status	Backup type	Creation time
awsbackup:job-b84a1cdc-25be-2385-d576-7abdf5006a2e	Completed	Snapshot	December 23, 2022, 17:15:53 (UTC+03:00)
rds:cluster-jun-2022-12-23-02-59	Completed	Snapshot	December 23, 2022, 05:59:54 (UTC+03:00)
rds:cluster-jun-2022-12-22-18-15	Completed	Snapshot	December 22, 2022, 21:16:43 (UTC+03:00)
for-task	Completed	Snapshot	December 21, 2022, 17:35:04 (UTC+03:00)

Удалил БД cluster_jun

Successfully deleted DB instance cluster-jun

RDS > Databases

Consider creating a Blue/Green Deployment to minimize downtime during upgrades

You may want to consider using Amazon RDS Blue/Green Deployments and minimize your downtime during upgrades. A Blue/Green Deployment provides a staging environment for changes to production databases. [RDS User Guide](#) [Aurora User Guide](#)

Databases

Group resources

⌂

Modify

Actions

Restore from S3

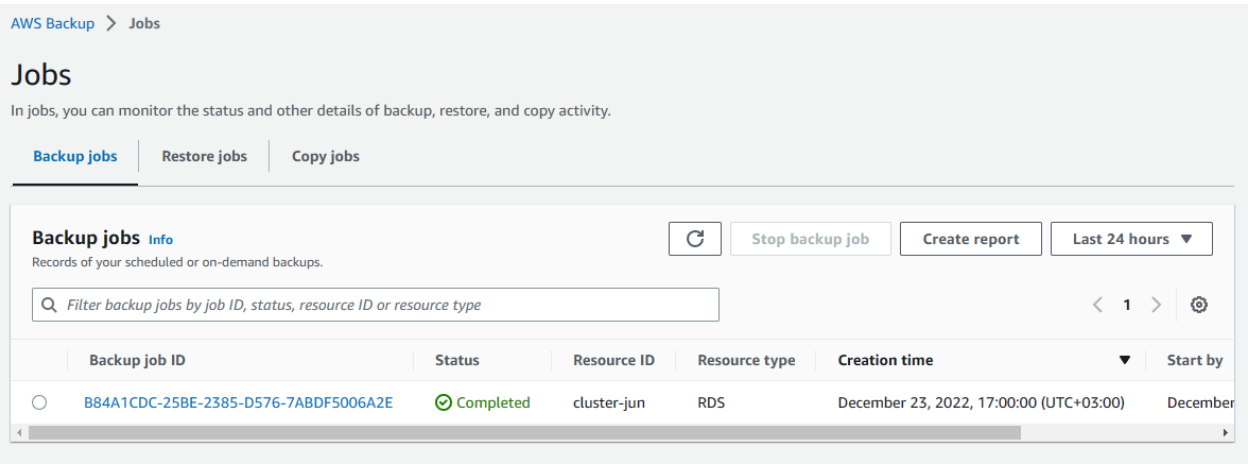
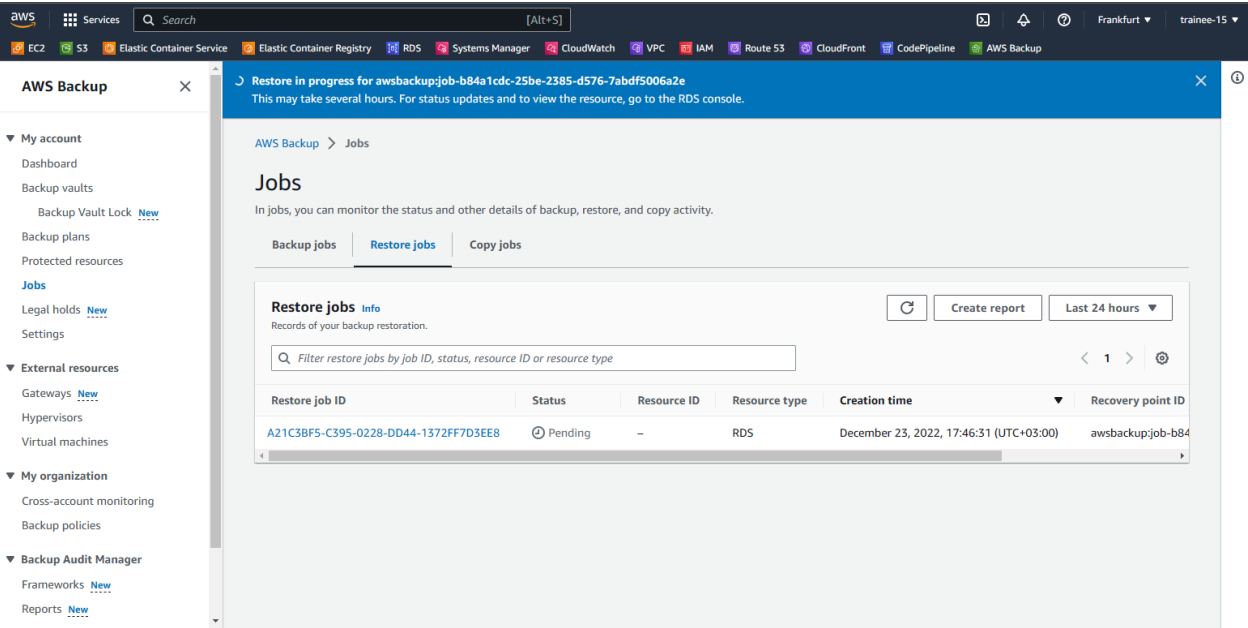
Create database

Filter by databases

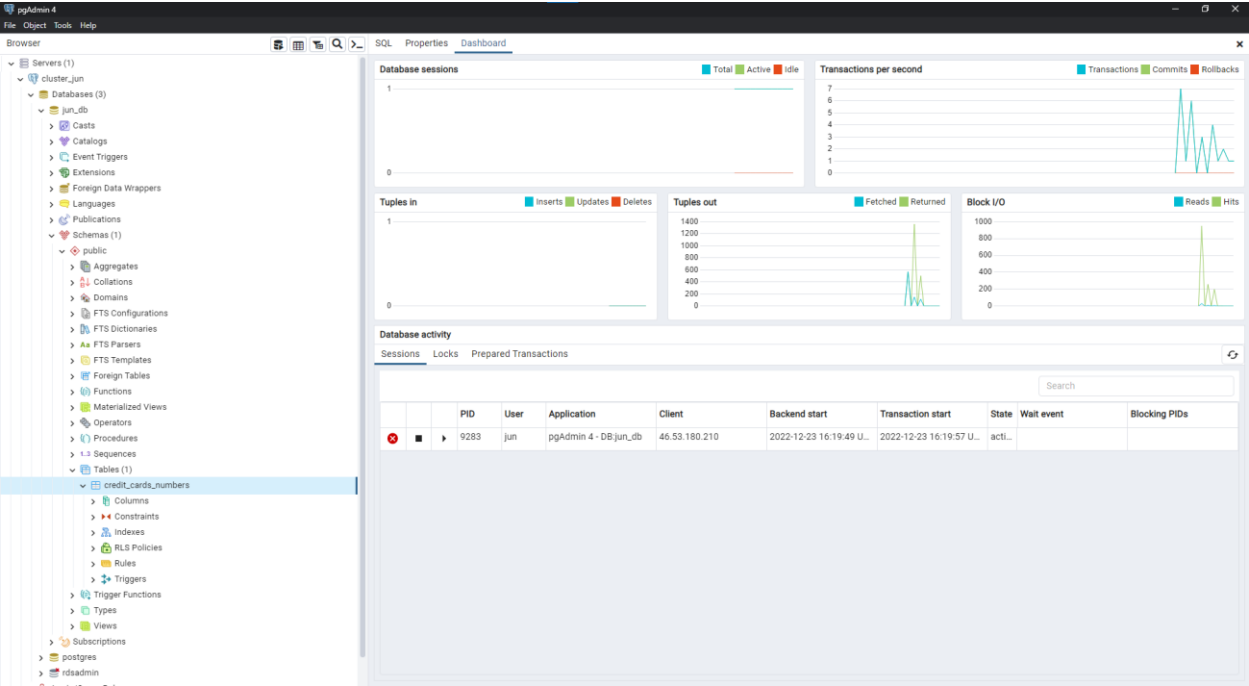
< 1 > ⚙

DB identifier	Role	Engine	Region & AZ	Size	Status	CPU
cluster-jun	Instance	PostgreSQL	eu-central-1a	db.t3.micro	Deleting	5.30%

Восстановил бэкап из AWS Backup



Проверка:



```
root@ubuntu:~# psql -h cluster-jun.cefd7ujkubpx.eu-central-1.rds.amazonaws.com -U jun -d jun_db
Password for user jun:
psql (14.5 (Ubuntu 14.5-0ubuntu0.22.04.1), server 13.7)
SSL connection (protocol: TLSv1.2, cipher: ECDHE-RSA-AES256-GCM-SHA384, bits: 256, compression: off)
Type "help" for help.

jun_db=> \l
jun_db=> \l
          List of databases
  Name | Owner | Encoding | Collate | Ctype | Access privileges
-----+-----+-----+-----+-----+-----
 jun_db | jun   | UTF8     | en_US.UTF-8 | en_US.UTF-8 |
 postgres | jun   | UTF8     | en_US.UTF-8 | en_US.UTF-8 |
 rdsadmin | rdsadmin | UTF8     | en_US.UTF-8 | en_US.UTF-8 | rdsadmin=CtC/rdsadmin+
          |         |          |             |             | rdstopmgr=Tc/rdsadmin
          |         |          |             |             | =c/rdsadmin
          |         |          |             |             | rdsadmin=CtC/rdsadmin
 template0 | rdsadmin | UTF8     | en_US.UTF-8 | en_US.UTF-8 |
 template1 | jun     | UTF8     | en_US.UTF-8 | en_US.UTF-8 | =c/jun
          |         |          |             |             | jun=CtC/jun
(5 rows)

jun_db=> \dt
          List of relations
 Schema | Name | Type | Owner
-----+-----+-----+-----
 public | credit_cards_numbers | table | jun
(1 row)

jun_db=> _
```