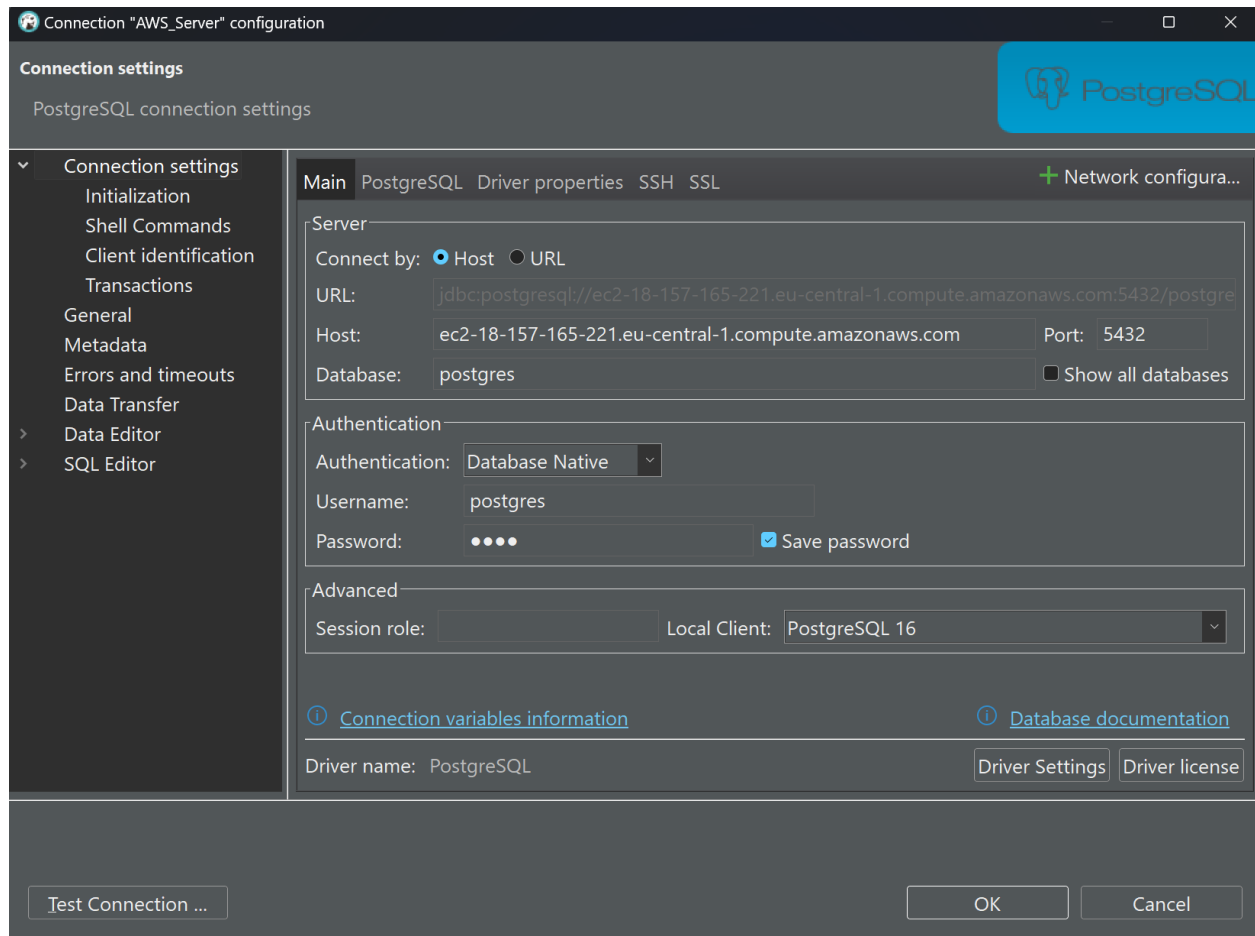
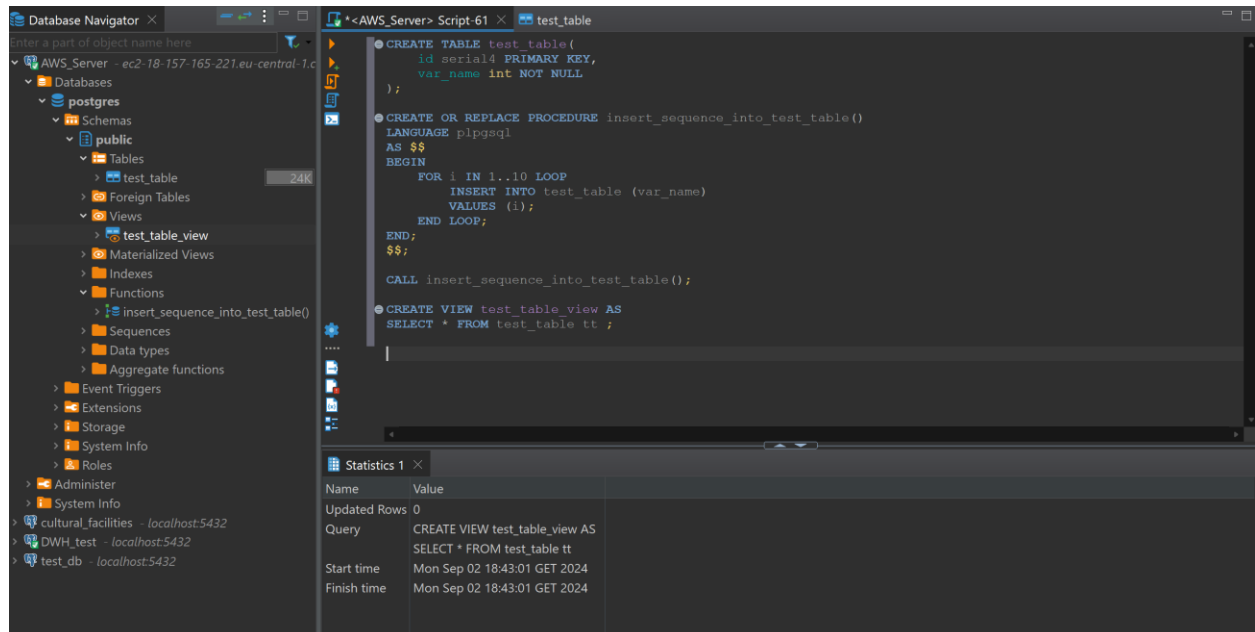


Connected to EC2 via Dbeaver



Created objects in db:



Copying file from S3 to EC2:

```
[ec2-user@ip-172-31-29-158 ~]$ aws s3 cp s3://rodinivanbucket/pizzaplace_dwh/schema_bl_dm/dim_addresses/dim_addresses.csv .local/  
download: s3://rodinivanbucket/pizzaplace_dwh/schema_bl_dm/dim_addresses/dim_addresses.csv to .local/dim_addresses.csv  
[ec2-user@ip-172-31-29-158 ~]$ mc
```

Left	File	Command	Options	Right
<-	~/local			.[^]>
	.n			
	../			UP--DIR Sep 1 19:32
	/share			16 Sep 1 15:25
	dim_addresses.csv			21471 Aug 29 11:05

Created snapshots of volumes:

aws

Services

Search

[Alt+S]

Frankfurt

ivan_rodin

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Snapshots (2)

Owned by me

Search

rodin

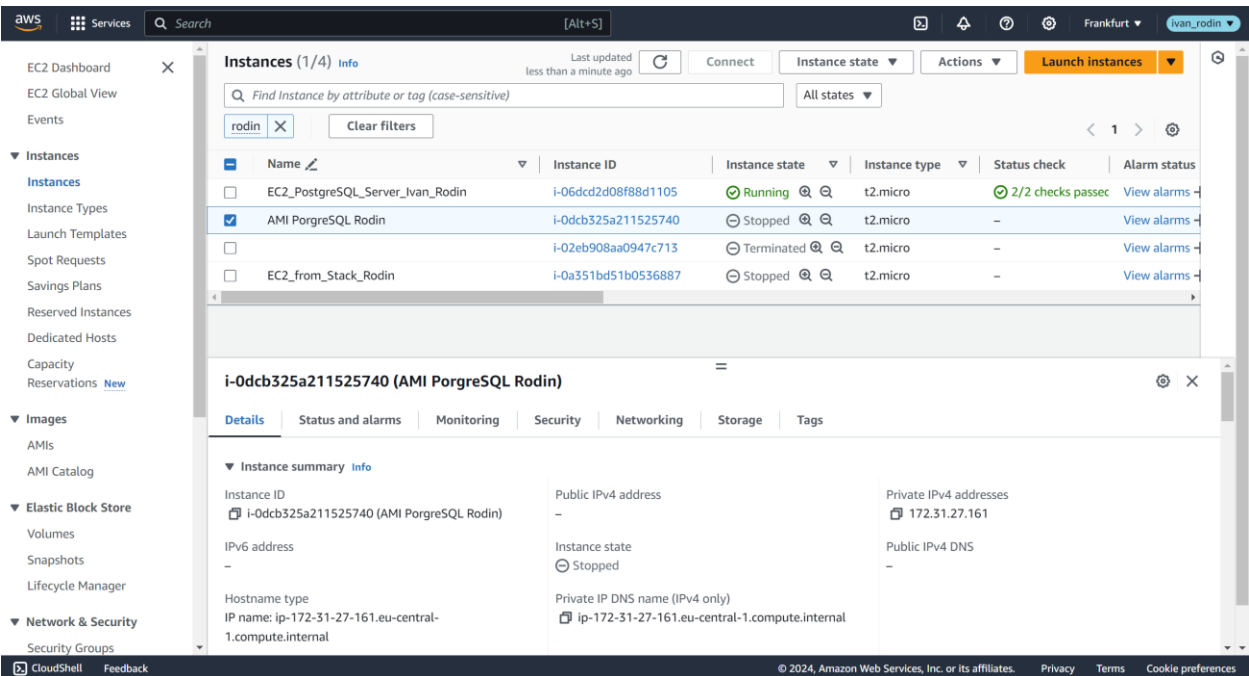
Clear filters

Create snapshot

	Name	Snapshot ID	Volume size	Description	Storage tier	Snapshot status	Started
<input type="checkbox"/>	-	snap-0700f234f7a8d705c	8 GiB	rodin_snapshot_1	Standard	Completed	2024/09/01 15:25
<input type="checkbox"/>	-	snap-0cba4178ee76afad9	10 GiB	rodin_snapshot_2	Standard	Completed	2024/09/01 11:05

Select a snapshot above.

Created AMI from snapshot of root disk (as soon as or file is located in this disk):



And here we see our file in this Image:

.n	Name	Size	Modify time
/..		UP--DIR	Sep 1 19:32
/share		16	Sep 1 15:25
dim_addresses.csv		21471	Aug 29 11:05

Installed apache on our EC2 instance:

```
[ec2-user@ip-172-31-29-158 ~]$ sudo yum install httpd -y
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
1 packages excluded due to repository priority protections
Resolving Dependencies
--> Running transaction check
---> Package httpd.x86_64 0:2.4.62-1.amzn2.0.2 will be installed
```

Provided our created html file to the folder (renamed it later to index.html, because otherwise it's not working):

```
[ec2-user@ip-172-31-29-158 ~]$ sudo aws s3 cp s3://rodinivanbucket/task2_ec2/web_page/web-page.html var/www/html
download: s3://rodinivanbucket/task2_ec2/web_page/web-page.html to var/www/html/web-page.html
[ec2-user@ip-172-31-29-158 ~]$ mc
```

Left	File	Command	Options	Right
<-	/var/www/html			.[^]>
.n		Name	Size	Modify time
/..			UP--DIR	Sep 2 10:59
index.html			103	Sep 2 11:17

And now when I access the public IP address, I see this page:

Ivan Rodin

My first web-page.

Here is the link: <http://3.72.74.81/>

However when I restart instance Public IP changes, so we need to copy it every time, or not to restart our instance.

Here I’ve created a CPU alarm in CloudWatch if its load is over 80 %:

CloudWatch > Alarms > rodin_cpu_alarm

Alarms

rodin_cpu_alarm

🔄 View ⌵ Actions ⌵

Details

Tags

Actions

History

Parent alarms

Details

Name rodin_cpu_alarm	State 🟢 OK	Namespace AWS/EC2	Datapoints to alarm 1 out of 1
Type Metric alarm	Threshold CPUUtilization > 80 for 1 datapoints within 5 minutes	Metric name CPUUtilization	Missing data treatment Treat missing data as missing
Description CPU Utilization is over 80 %	Last state update 2024-09-02 13:17:50 (UTC)	Instanceld i-06dcd2d08f88d1105	Percentiles with low samples evaluate
	Actions 🟢 Actions enabled	Instance name EC2_PostgreSQL_Server_Ivan_Rodin	ARN arn:aws:cloudwatch:eu-central-1:260586643565:alarm:rodin_cpu_alarm
		Statistic Average	
		Period 5 minutes	

▶ View EventBridge rule

Then I’ve connected it to SNS and created subscription for email:

EC2_Notifications_Rodin

[Edit](#)[Delete](#)[Publish message](#)

Details

Name	Display name
EC2_Notifications_Rodin	-
ARN	Topic owner
arn:aws:sns:eu-central-1:260586643565:EC2_Notifications_Rodin	260586643565
Type	
Standard	

< [Subscriptions](#) [Access policy](#) [Data protection policy](#) [Delivery policy \(HTTP/S\)](#) [Delivery status logging](#) [Encryption](#) T >

Subscriptions (1)

[Edit](#)[Delete](#)[Request confirmation](#)[Confirm subscription](#)[Create subscription](#)

< 1 > ⚙

ID	Endpoint	Status	Protocol
<input type="radio"/> 0bb90844-0e0d-4edf-8a8c-0...	ivan.21dj21@yandex.ru	✔ Confirmed	EMAIL

Created a stack in CloudFormation with a template for creating instance from my previously created image and configurations:

CloudFormation > Stacks > rodin-stack

Stacks (100+)

Filter by stack name

Filter status: Active

View nested

Stacks

- rodin-stack
2024-09-02 18:16:55 UTC+0400
✔ CREATE_COMPLETE
- JB-stack-with-template
2024-09-02 17:28:30 UTC+0400
✔ CREATE_COMPLETE
- Shvaidyuk-stack
2024-09-02 15:46:00 UTC+0400
✔ CREATE_COMPLETE
- EC2StackBaymetov
2024-09-02 15:21:50 UTC+0400
✔ CREATE_COMPLETE

Stack info Events Resources Outputs Parameters Template Change >

Events (7)

Detect root cause

Search events

Timestamp	Logical ID	Status	Detailed status
2024-09-02 18:17:41 UTC+0400	rodin-stack	✔ CREATE_COMPLETE	-
2024-09-02 18:17:41 UTC+0400	EC2Instance	✔ CREATE_COMPLETE	-
2024-09-02 18:17:10 UTC+0400	rodin-stack	ⓘ CREATE_IN_PROGRESS	✔ CONFIGURATION_COMPLETE
2024-09-02 18:17:10 UTC+0400	EC2Instance	ⓘ CREATE_IN_PROGRESS	✔ CONFIGURATION_COMPLETE
2024-09-02 18:16:59 UTC+0400	EC2Instance	ⓘ CREATE_IN_PROGRESS	-
2024-09-02 18:16:57 UTC+0400	EC2Instance	ⓘ CREATE_IN_PROGRESS	-
2024-09-02 18:16:55 UTC+0400	rodin-stack	ⓘ CREATE_IN_PROGRESS	-

Instance was created:

CloudFormation > Stacks > rodin-stack

Stacks (100+)

Filter by stack name

Filter status: Active

View nested

Stacks

- rodin-stack
2024-09-02 18:16:55 UTC+0400
CREATE_COMPLETE
- JB-stack-with-template
2024-09-02 17:28:30 UTC+0400
CREATE_COMPLETE
- Shvaidyuk-stack
2024-09-02 15:46:00 UTC+0400
CREATE_COMPLETE
- EC2StackBaymetov
2024-09-02 15:21:50 UTC+0400
CREATE_COMPLETE

rodin-stack

Delete Update Stack actions Create stack

Stack info Events Resources Outputs Parameters Template Change set

Resources (1)

Search resources

Logical ID	Physical ID	Type	Status
EC2Instance	i-0a351bd51b0536887	AWS::EC2::Instance	CREATE_COMPLETE

And this instance can be seen in EC2 Instances:

aws Services Search [Alt+5] Frankfurt ivan_rodin

EC2 Dashboard EC2 Global View Events

Instances

- Instances
- Instance Types
- Launch Templates
- Spot Requests
- Savings Plans
- Reserved Instances
- Dedicated Hosts
- Capacity
- Reservations

Images

- AMIs
- AMI Catalog

Elastic Block Store

- Volumes
- Snapshots
- Lifecycle Manager

Network & Security

- Security Groups

Instances (1/1) info

Last updated 1 minute ago

Connect Instance state Actions Launch instances

Find Instance by attribute or tag (case-sensitive)

Instance ID = i-0a351bd51b0536887

Clear filters

Name	Instance ID	Instance state	Instance type	Status check	Alarm status
EC2_from_Stack_Rodin	i-0a351bd51b0536887	Running	t2.micro	Initializing	View alarms

i-0a351bd51b0536887 (EC2_from_Stack_Rodin)

Details Status and alarms Monitoring Security Networking Storage Tags

Instance summary info

Instance ID: i-0a351bd51b0536887 (EC2_from_Stack_Rodin)

IPv6 address: --

Public IPv4 address: 3.79.102.221 | open address

Instance state: Running

Private IPv4 addresses: 172.31.16.115

Public IPv4 DNS: ec2-3-79-102-221.eu-central-1.compute.amazonaws.com | open address