

# Homework\_Lesson\_31

1. Создайте новый бакет Amazon S3/GCP Cloud Storage тремя способами: через GUI (консоль в браузере), с помощью CLI, конфиг в terraform.

## Способ 1: через GUI (веб-консоль)

The screenshot shows the Google Cloud Console interface. The top navigation bar includes the Google Cloud logo, the project name 'My First Project', and a search bar. The left sidebar shows the 'Cloud Storage' menu with options like Overview, Buckets, Monitoring, and Settings. The main content area is divided into two sections: 'Create a bucket' and 'Bucket details'.

**Create a bucket**

- Get Started**: Name: newbucket\_7
- Choose where to store your data**: Location: eu (multiple regions in European Union), Location type: Multi-region
- Choose a storage class for your data**: Default storage class: Standard
- Choose how to control access to objects**: Public access prevention: On, Access control: Uniform
- Choose how to protect object data**: Soft delete policy: Default, Object versioning: Disabled, Bucket retention policy: Disabled, Object retention: Disabled, Encryption type: Google-managed

**Good to know**

**Location pricing**

Storage rates vary depending on the storage class of your data and location of your bucket. [Pricing details](#)

Current configuration: Multi-region / Standard

Item	Cost
eu (multiple regions in European Union)	\$0.026 per GB-month
With default replication	\$0.020 per GB written

ESTIMATE YOUR MONTHLY COST

**Bucket details**

newbucket\_7

Location: eu (multiple regions in European Union), Storage class: Standard, Public access: Not public, Protection: Soft Delete

Navigation tabs: OBJECTS, CONFIGURATION, PERMISSIONS, PROTECTION, LIFECYCLE, OBSERVABILITY, INVENTORY REPORTING

**Folder browser**

newbucket\_7

**Bucket actions**: CREATE FOLDER, UPLOAD, TRANSFER DATA

Filter by name prefix only, Filter objects and folders, Show Live objects only

Name	Size	Type	Created	Storage class	Last modified	Public access
No rows to display						

## Способ 2: С помощью CLI (gcloud/gsutil)

Создаем сервисный аккаунт, в нем ключ, ключ импортируем на вм, активируем его и делаем по умолчанию, создаем бакет и проверяем

```
alexmslearn@ubu:~/bucket$ echo $GOOGLE_APPLICATION_CREDENTIALS
/home/alexmslearn/bucket/ordinal-stone-450713-n3-iam-f69b8d.json
alexmslearn@ubu:~/bucket$ gcloud auth activate-service-account --key-file=$GOOGLE_APPLICATION_CREDENTIALS
Activated service account credentials for: [bucket@ordinal-stone-450713-n3-iam.gserviceaccount.com]
```

```
alexmslearn@ubu:~/bucket$ gcloud config set account bucket@ordinal-stone-450713-n3-iam.gserviceaccount.com
Updated property [core/account].
alexmslearn@ubu:~/bucket$ gcloud auth list
Credentialed Accounts

ACTIVE ACCOUNT
584988178322-compute@developer.gserviceaccount.com
* bucket@ordinal-stone-450713-n3-iam.gserviceaccount.com
```

```
alexmslearn@ubu:~/bucket$ gsutil mb gs://mylapikoubucket/
Creating gs://mylapikoubucket/...
alexmslearn@ubu:~/bucket$
```

<input type="checkbox"/>	Name ↑	Created	Location type	Location	Default storage class ?	Last modified
<input type="checkbox"/>	<a href="#">mylapikovbucket</a>	Mar 11, 2025, 11:11:54 AM	Multi-region	us	Standard	Mar 11, 2025, 11:11:54 AM
<input type="checkbox"/>	<a href="#">newbucket_7</a>	Mar 10, 2025, 6:01:04 PM	Multi-region	eu	Standard	Mar 10, 2025, 6:01:04 PM

Способ 3: С помощью конфига в terraform.

Ставим terraform и создаем файл конфигурации, инициализируем, проверяем и создаем

```
alexmslearn@ubu:~/terraform$ cat main.tf
provider "google" {
  credentials = file("/home/alexmslearn/bucket/ordinal-stone-50719-10-4056eb8d.json")
  project     = "ordinal-stone-50719"
  region      = "us-central1"
}

resource "google_storage_bucket" "my_bucket" {
  name     = "mylapikouterrabucket"
  location = "US"
}
```

note: you didn't use the `save` option to save this plan, so terraform can't guarantee to take exact

```
alexmslearn@ubu:~/terraform$ terraform apply
```

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:

- + create

Terraform will perform the following actions:

```
# google_storage_bucket.my_bucket will be created
+ resource "google_storage_bucket" "my_bucket" {
  + effective_labels = {
    + "goog-terraform-provisioned" = "true"
  }
  + force_destroy      = false
  + id                 = (known after apply)
  + location           = "US"
  + name               = "mylapikouterrabucket"
  + project             = (known after apply)
  + project_number     = (known after apply)
  + public_access_prevention = (known after apply)
  + rpo                = (known after apply)
  + self_link          = (known after apply)
  + storage_class       = "STANDARD"
  + terraform_labels   = {
    + "goog-terraform-provisioned" = "true"
  }
  + uniform_bucket_level_access = (known after apply)
  + url                     = (known after apply)

  + soft_delete_policy (known after apply)

  + versioning (known after apply)

  + website (known after apply)
}
```

Plan: 1 to add, 0 to change, 0 to destroy.

Do you want to perform these actions?  
Terraform will perform the actions described above.  
Only 'yes' will be accepted to approve.

Enter a value: yes

```
google_storage_bucket.my_bucket: Creating...
google_storage_bucket.my_bucket: Creation complete after 3s [id=mylapikovterrabet]

Apply complete! Resources: 1 added, 0 changed, 0 destroyed.
alexmslearn@ubu:~/terraform$ cat main.tf
provider "google" {
  credentials = file("/home/alexmslearn/bucket/ordinal-stone-450713-n3-f9e4d0f50010d.json")
  project     = "ordinal-stone-450713-n3"
  region      = "us-central1"
}

resource "google_storage_bucket" "my_bucket" {
  name     = "mylapikovterrabet"
  location = "US"
}
```

Filter Filter buckets

<input type="checkbox"/>	Name ↑	Created	Location type	Location	Default storage class ?	Last modified
<input type="checkbox"/>	<a href="#">mylapikovbucket</a>	Mar 11, 2025, 11:11:54 AM	Multi-region	us	Standard	Mar 11, 2025, 11:11:54 AM
<input type="checkbox"/>	<a href="#">mylapikovterrabet</a>	Mar 11, 2025, 11:45:18 AM	Multi-region	us	Standard	Mar 11, 2025, 11:45:18 AM
<input type="checkbox"/>	<a href="#">newbucket_7</a>	Mar 10, 2025, 6:01:04 PM	Multi-region	eu	Standard	Mar 10, 2025, 6:01:04 PM

2. Создайте Amazon EC2/GCP Compute Engine и настройте масштабирование, чтобы автоматически добавлять новые экземпляры в случае увеличения нагрузки. Сделайте это тремя способами: через GUI (консоль в браузере) с помощью CLI, конфиг в terraform.

Способ 1:

Создаем Instance template Ubuntu и Instance group. Включим Autoscaler с параметрами масштабирования

Compute Engine

Overview

Virtual machines

VM instances

Instance templates

Sole-tenant nodes

Machine images

Instance temp...

CREATE INSTANCE TEMPLATE

REFRESH

Instance templates are saved VM configurations used to create identical VMs, either individually or as part of managed instance groups. [Learn more](#)

Filter Filter instance templates

<input type="checkbox"/>	Name ↑	Machine type	Image	Disk type	Location
<input type="checkbox"/>	<a href="#">instance-template-ubuntu</a>	e2-medium	ubuntu-2004-focal-v20250213	Balanced persistent disk	europa

Compute Engine / Instance groups

Async Replication

Instance groups

Instance groups

Health checks

VM Manager

Patch

OS policies

Instance groups

CREATE INSTANCE GROUP

REFRESH

DELETE

Instance groups are collections of VM instances that use load balancing and automated services, like autoscaling and autohealing. [Learn more](#)

Filter Enter property name or value

<input type="checkbox"/>	Status	Name ↑	Instances	Template	Group type	Creation time
<input type="checkbox"/>	✓	<a href="#">instance-group-1</a>	1	<a href="#">instance-template-ubuntu (Regional)</a>	Managed	Mar 11, 2025, 12:30:05 PM UTC+03:00

Autoscaling

Autoscaling mode	On
Minimum # of instances	1
Maximum # of instances	10
Initialization period	60 seconds
Autoscaling signal	
CPU utilization	60%
Predictive autoscaling	Off
Scale in controls	On
Limit reduction to	10 %
Time frame	10 minutes
Scaling schedules	<a href="#">MANAGE SCHEDULES</a>

Включим Monitoring по CPU и алерт на почту

Observability Monitoring

Explore

Metrics explorer

Logs explorer

Log analytics

Trace explorer

Detect

Alerting

Error reporting

Uptime checks

Synthetic monitoring

SLOs

Observability Scopes

My First Project

Release Notes

Policy details

Enabled

Edit

Copy

Delete

JSON

Condition type

Forecast

Triggers when

Any time series is predicted to cross threshold

Forecast window

1 hr

Thresh

Above

Mar 11, 2025, 2:08:40 PM

Threshold

agent europe-north1-b agent

ubu europe-north1-c ubu

instance-group-1-53d0 europe-north1-a insta

nce-group-1-53d0

UTC+3

1:15 PM

1:20 PM

1:25 PM

1:30 PM

1:35 PM

1:40 PM

1:45 PM

1:50

Filter

Enter property name or value

☐

Name (from instance\_id) ↑

zone

☐

agent europe-north1-b agent

europe-north1-b

☐

instance-group-1-53d0 europe-north1-a instance-group-1-53d0

europe-north1-a

☐

ubu europe-north1-c ubu

europe-north1-c

Настроим балансировщика

Network Services

Load balancing

Cloud DNS

Cloud CDN

Cloud NAT

Cloud Service Mesh (Traffic ...)

Service Directory

Cloud Domains

Private Service Connect

SSL policies

Service Extensions

Marketplace

Edit global external Application Load Balancer

Load Balancer name

loadbalancer

Frontend configuration

Backend configuration

Routing rules

Review and finalize (optional)

Review and finalize

Frontend

Protocol ↑

IP:Port

Certificate

HTTP

34.120.67.164:80

-

Routing rules

(Default) Redirect traffic to a different host/path for any

Backend

This load balancer has no backends configured

Free trial status: \$252.06 credit and 64 days remaining. Activate your full account to get unlimited access to all of Google Cloud—use any

Google Cloud

My First Project

v

Create an instance

CREATE VM FROM...

Machine configuration

e2-medium, us-central1

OS and storage

Debian GNU/Linux 12 (bookworm)

Data protection

Snapshot schedules

Networking

1 network interface

Observability

Install Ops Agent

Security

Advanced

Machine configuration

Name \*

instance-20250311-114005

Region \*

us-central1 (Iowa)

Region is permanent

Zone \*

Any

Google will choose a zone for you based on availability. Zone is permanent.

General purpose

Compute optimized

Memory optimized

Storage optimized

Machine types for common workloads, optimized for cost and flexibility

Series	Description	vCPUs	Memory
<input type="radio"/> C4	Consistently high performance	2 - 192	4 - 64 GB
<input type="radio"/> C4A	Arm-based consistently high performance	1 - 72	4 - 64 GB
<input type="radio"/> N4	Flexible & cost-optimized	2 - 80	4 - 64 GB
<input type="radio"/> C3	Consistently high performance	4 - 192	8 - 64 GB
<input type="radio"/> C3D	Consistently high performance	4 - 360	8 - 64 GB

Create VM from template

Filter instance templates

Name	Machine type	Disk type	Location
instance-template-ubuntu	e2-medium	Balanced persistent disk	europa-north1

ssh.cloud.google.com/v2/ssh/projects/ordinal-stone-450713-n3/zones/europe-north1-a/instances/instance-template-ubuntu-20250311-114005

SSH-in-browser

Expanded Security Maintenance for Applications is not enabled.  
0 updates can be applied immediately.  
Enable ESM Apps to receive additional future security updates.  
See https://ubuntu.com/esm or run: sudo pro status  
  
The list of available updates is more than a week old.  
To check for new updates run: sudo apt update  
New release '22.04.5 LTS' available.  
Run 'do-release-upgrade' to upgrade to it.  
  
Last login: Tue Mar 11 11:45:59 2025 from 35.235.240.178  
alexmslearn@instance-template-ubuntu-20250311-114005:~\$

instance-template-ubuntu-20250311-114005

europa-north1-a

10.166.0.6 (nic0)

34.88.72.137 (nic0)

SSH

DISK

External IP	Connect
34.88.230.67 (nic0)	SSH
34.88.136.230 (nic0)	SSH
34.88.72.137 (nic0)	SSH

Протестируем балансировку нагрузки с помощью Apache Benchmark



1

UTC+3 2:35 PM 2:40 PM 2:45 PM 2:50 PM 2:55 PM 3:00 PM 3:05 PM 3:10 PM 3:15 PM 3:20 PM 3:25 PM

Filter

Enter property name or value

Name (from instance_id)	zone	instance_name	Value
agent europa-north1-b agent	europa-north1-b	agent	0.045
instance-group-1-4fvd europa-north1-a instance-group-1-4fvd	europa-north1-a	instance-group-1-4fvd	0.268
instance-group-1-53d0 europa-north1-a instance-group-1-53d0	europa-north1-a	instance-group-1-53d0	0.037
instance-group-1-hr95 europa-north1-a instance-group-1-hr95	europa-north1-a	instance-group-1-hr95	0.446
instance-template-ubuntu-20250311-114005 europa-north1-a instance-template-ubuntu-20250311-114005	europa-north1-a	instance-template-ubu	0.002



VM instances

Filter Enter property name or value

<input type="checkbox"/>	Status	Name ↑	Zone	Recommendations	In use by	Internal IP	External IP	
<input type="checkbox"/>	✓	<a href="#">agent</a>	europe-north1-b	💡 Save \$26 / mo		10.166.0.4 (nic0)	<a href="#">34.88.230.67</a> (nic0)	:
<input type="checkbox"/>	✓	<a href="#">instance-group-1-4fvd</a>	europe-north1-a		<a href="#">instance-</a> ▼	10.166.0.7 (nic0)	<a href="#">34.88.161.186</a> (nic0)	:
<input type="checkbox"/>	✓	<a href="#">instance-group-1-53d0</a>	europe-north1-a		<a href="#">instance-</a> ▼	10.166.0.5 (nic0)	<a href="#">34.88.136.230</a> (nic0)	:
<input type="checkbox"/>	✓	<a href="#">instance-group-1-759l</a>	europe-north1-a		<a href="#">instance-</a> ▼	10.166.0.10 (nic0)	<a href="#">35.228.221.104</a> (nic0)	:
<input type="checkbox"/>	✓	<a href="#">instance-group-1-gr5q</a>	europe-north1-a		<a href="#">instance-</a> ▼	10.166.0.9 (nic0)	<a href="#">34.88.240.129</a> (nic0)	:
<input type="checkbox"/>	✓	<a href="#">instance-group-1-hr95</a>	europe-north1-a		<a href="#">instance-</a> ▼	10.166.0.8 (nic0)	<a href="#">35.228.73.78</a> (nic0)	:
<input type="checkbox"/>	✓	<a href="#">instance-template-ubuntu-20250311-114035</a>	europe-north1-a			10.166.0.6 (nic0)	<a href="#">34.88.72.137</a> (nic0)	:
<input type="checkbox"/>	✓	<a href="#">ubu</a>	europe-north1-c			10.166.0.3 (nic0)	<a href="#">34.88.149.200</a> (nic0)	:

Способ 3: С помощью terraform

Создаем шаблон экземпляра

```
alexmslearn@ubu:~/terraform$ gcloud compute instance-templates create instance-lapikou-template \
--image-family ubuntu-2004-lts \
--image-project ubuntu-os-cloud \
--machine-type e2-medium \
--region europe-north1
Created [https://www.googleapis.com/compute/v1/projects/o-...-stone-450713-n3/global/instanceTemplates/instance-lapikou-template].
NAME                                MACHINE_TYPE  PREEMPTIBLE  CREATION_TIMESTAMP
instance-lapikou-template  e2-medium    2025-03-11T06:59:43.863-07:00
alexmslearn@ubu:~/terraform$
```

Google Cloud My First Project template

Compute Engine

Overview

Virtual machines

VM instances

Instance templates

Sole-tenant nodes

Machine images

Instance temp...

CREATE INSTANCE TEMPLATE REFRESH

Instance templates are saved VM configurations used to create identical VMs, either individually or as part of managed instance groups. [Learn more](#)

Filter Filter instance templates

<input type="checkbox"/>	Name ↑	Machine type	Image	Disk type	Location
<input type="checkbox"/>	<a href="#">instance-lapikou-template</a>	e2-medium	ubuntu-2004-lts	—	global

Создаем группу управляемых экземпляров

```
alexmslearn@ubu:~/terraform$ gcloud compute instance-groups managed create instance-lapikou-group \
--base-instance-name base-lapikou-instance \
--template instance-lapikou-template \
--size 1 \
--zone europe-north1-a
Created [https://www.googleapis.com/compute/v1/projects/o-...-stone-450713-n3/zones/europe-north1-a/instanceGroupManagers/instance-lapikou-group].
NAME                                LOCATION      SCOPE  BASE_INSTANCE_NAME  SIZE  TARGET_SIZE  INSTANCE_TEMPLATE  AUTOSCALED
instance-lapikou-group  europe-north1-a  zone  base-lapikou-instance  0      1            instance-lapikou-template  no
alexmslearn@ubu:~/terraform$
```

Filter Enter property name or value

<input type="checkbox"/>	Status	Name ↑	Instances	Template	Group type	Creation time	Reco
<input type="checkbox"/>		<a href="#">instance-lapikou-group</a>	0 → 1	<a href="#">instance-lapikou-template</a>	Managed	Mar 11, 2025, 5:02:11 PM UTC+03:00	

## Настроим авто масштабирование для группы экземпляров

```
alexmslearn@ubu:~/terraform$ gcloud compute instance-groups managed set-autoscaling instance-lapikou-group \
--zone europe-north1-a \
--target-cpu-utilization 0.6 \
--min-num-replicas 1 \
--max-num-replicas 5 \
--cool-down-period 60
Created [https://www.googleapis.com/compute/v1/projects/ordinal-stone-450713-n3/zones/europe-north1-a/autoscalers/instance-lapikou-group-11nh].
---
autoscalingPolicy:
  coolDownPeriodSec: 60
  cpuUtilization:
    utilizationTarget: 0.6
  maxNumReplicas: 5
  minNumReplicas: 1
  mode: ON
creationTimestamp: '2025-03-11T07:09:00.424-07:00'
id: '2827364437059304723'
kind: compute#autoscaler
name: instance-lapikou-group-11nh
selfLink: https://www.googleapis.com/compute/v1/projects/ordinal-stone-450713-n3/zones/europe-north1-a/autoscalers/instance-lapikou-group-11nh
status: ACTIVE
target: https://www.googleapis.com/compute/v1/projects/ordinal-stone-450713-n3/zones/europe-north1-a/instanceGroupManagers/instance-lapikou-group
zone: https://www.googleapis.com/compute/v1/projects/ordinal-stone-450713-n3/zones/europe-north1-a
alexmslearn@ubu:~/terraform$
```

Compute Engine / Instance groups / Instance group: instance-lapikou-group

Disks

Storage Pools

Snapshots

Images

Async Replication

instance groups ^

Instance groups

Health checks

VM Manager ^

Patch

OS policies

Bare Metal Solution ^

← instance-lapikou-group

EDIT

UPDATE VMS

RESTART/REPLACE VMS

DELETE GROUP

Stopped	0	0
Suspended	0	0

Autoscaling

Autoscaling mode

On

Minimum # of instances

1

Maximum # of instances

5

Initialization period

60 seconds

Autoscaling signal

CPU utilization

60%

Predictive autoscaling

Off

Scale in controls

Off

Scaling schedules

MANAGE SCHEDULES

## Настроим проверку здоровья и балансировщик нагрузки

```
alexmslearn@ubu:~/terraform$ gcloud compute health-checks create http http-health-check \
  --port 80 \
  --request-path /health
Created [https://www.googleapis.com/compute/v1/projects/ordinal-stone-450713-n3/global/healthChecks/http-health-check].
NAME          PROTOCOL
http-health-check HTTP
alexmslearn@ubu:~/terraform$
```

```
alexmslearn@ubu:~/terraform$ gcloud compute backend-services create backend-lapikou-service \
  --protocol HTTP \
  --port-name http \
  --health-checks http-health-check \
  --global \
  --project ordinal-stone-450713-n3
Created [https://www.googleapis.com/compute/v1/projects/ordinal-stone-450713-n3/global/backendServices/backend-lapikou-service].
NAME          BACKENDS  PROTOCOL
backend-lapikou-service HTTP
alexmslearn@ubu:~/terraform$
```

## Проверим работу под нагрузкой

### Создаем глобальный IP адрес

```
alexmslearn@ubu:~/terraform$ gcloud compute addresses create lapikou-global-ip --global --project ordinal-stone-450713-n3
Created [https://www.googleapis.com/compute/v1/projects/ordinal-stone-450713-n3/global/addresses/lapikou-global-ip].
alexmslearn@ubu:~/terraform$
```

```
alexmslearn@ubu:~/terraform$ gcloud compute addresses describe lapikou-global-ip --global --project ordinal-stone-450713-n3
address: 34.49.95.24
addressType: EXTERNAL
creationTimestamp: '2025-03-11T07:21:56.848-07:00'
description: ''
id: '3522885032882338283'
ipVersion: IPV4
kind: compute#address
labelFingerprint: 42WmSpB8rSM=
name: lapikou-global-ip
networkTier: PREMIUM
selfLink: https://www.googleapis.com/compute/v1/projects/ordinal-stone-450713-n3/global/addresses/lapikou-global-ip
status: RESERVED
```

Поставим арасче и отправим 1000 запросов с параллельностью в 10 соединений к нашему балансировщику нагрузки:

Нагрузки в 60 % недостаточно для условия масштабирования, укажем принудительно мин 2

```
alexmslearn@ubu:~/terraform$ gcloud compute instance-groups managed set-autoscaling instance-lapikou-group \
  --zone europe-north1-a \
  --target-cpu-utilization 0.6 \
  --min-num-replicas 2 \
  --max-num-replicas 5
Updated [https://www.googleapis.com/compute/v1/projects/ordinal-stone-450713-n3/zones/europe-north1-a/autoscalers/instance-lapikou-group-11nh].
---
autoscalingPolicy:
  coolDownPeriodSec: 60
  cpuUtilization:
    utilizationTarget: 0.6
  maxNumReplicas: 5
  minNumReplicas: 2
  mode: ON
creationTimestamp: '2025-03-11T07:09:00.424-07:00'
id: '2827364437059304723'
kind: compute#autoscaler
name: instance-lapikou-group-11nh
selfLink: https://www.googleapis.com/compute/v1/projects/ordinal-stone-450713-n3/zones/europe-north1-a/autoscalers/instance-lapikou-group-11nh
status: ACTIVE
target: https://www.googleapis.com/compute/v1/projects/ordinal-stone-450713-n3/zones/europe-north1-a/instanceGroupManagers/instance-lapikou-group
zone: https://www.googleapis.com/compute/v1/projects/ordinal-stone-450713-n3/zones/europe-north1-a
alexmslearn@ubu:~/terraform$
```



### Проверим состояние экземпляров

```
alex@mslearn:~/terraform$ gcloud compute instance-groups managed list-instances instance-lapikou-group --zone europe-north1-a
NAME                                ZONE          STATUS  HEALTH_STATE  ACTION  INSTANCE_TEMPLATE  VERSION_NAME  LAST_ERROR
base-lapikou-instance-p1wg         europe-north1-a  RUNNING  NONE          NONE    instance-lapikou-template  instance-lapikou-template
base-lapikou-instance-xpmq         europe-north1-a  RUNNING  NONE          NONE    instance-lapikou-template  instance-lapikou-template
alex@mslearn:~/terraform$
```

#### VM instances

Filter Enter property name or value

<input type="checkbox"/> Status	Name ↑	Zone	Recommendations	In use by	Internal IP	External IP
<input type="checkbox"/>	<a href="#">agent</a>	europe-north1-b	Save \$26 / mo		10.166.0.4 (nic0)	<a href="#">34.88.230.67</a> (nic0)
<input type="checkbox"/>	<a href="#">base-lapikou-instance-p1wg</a>	europe-north1-a		<a href="#">instance-lapikou-</a>	10.166.0.11 (nic0)	34.88.136.230 (nic0)
<input type="checkbox"/>	<a href="#">base-lapikou-instance-xpmq</a>	europe-north1-a		<a href="#">instance-lapikou-</a>	10.166.0.12 (nic0)	34.88.161.186 (nic0)
<input type="checkbox"/>	<a href="#">ubu</a>	europe-north1-c			10.166.0.3 (nic0)	<a href="#">34.88.149.200</a> (nic0)

3.\* Создайте базу через GUI (консоль в браузере), с помощью CLI, конфиг в terraform данных Amazon RDS/GCP CloudSQL и подключитесь к ней из виртуальной машины, которую вы создали ранее. Сделайте это тремя способами: через GUI (консоль в браузере) с помощью CLI, конфиг в terraform.