

Homework_Lesson34_Report

"Используя Voto3/Google, создайте новый Lambda-функцию/App Engine в вашей учетной записи AWS/GCP и настройте триггер для ее запуска при добавлении новой записи в таблицу DynamoDB/CloudSQL. Функция может выполнять любую логику, например, выключать все виртуальные машины, которые у вас созданы."

Запускаем конфиг терраформа.

```
PS D:\Terraform\Cloud4> 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:

# aws_dynamodb_table.dynamodb_table will be created
+ resource "aws_dynamodb_table" "dynamodb_table" {
+   arn                = (known after apply)
+   billing_mode       = "PAY_PER_REQUEST"
+   hash_key           = "id"
+   id                 = (known after apply)
+   name               = "LambdaTriggerTable"
+   read_capacity      = (known after apply)
+   stream_arn         = (known after apply)
+   stream_enabled     = true
+   stream_label       = (known after apply)
+   stream_view_type   = "NEW_IMAGE"
+   tags_all           = (known after apply)
+   write_capacity     = (known after apply)

+   attribute {
+     name = "id"
+     type = "S"
+   }

+   point_in_time_recovery (known after apply)

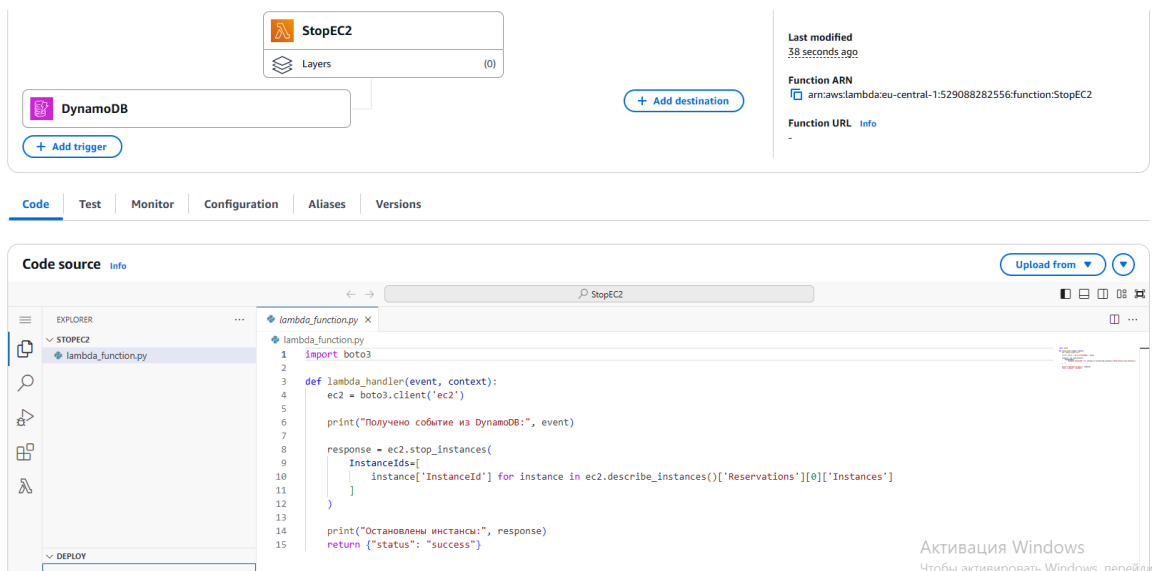
+   server_side_encryption (known after apply)

+   ttl (known after apply)
+ }

# aws_iam_policy_attachment.lambda_basic_execution will be created
+ resource "aws_iam_policy_attachment" "lambda_basic_execution" {
+   id          = (known after apply)
+   name        = "lambda_basic_execution_attachment"
+   policy_arn  = "arn:aws:iam::aws:policy/service-role/AWSLambdaBasicExecutionRole"
+   roles      = [
+     "lambda_dynamodb_trigger_role",
+   ]
+ }

# aws_iam_policy_attachment.lambda_dynamodb_access will be created
+ resource "aws_iam_policy_attachment" "lambda_dynamodb_access" {
+   id          = (known after apply)
+   name        = "lambda_dynamodb_access_attachment"
+   policy_arn  = "arn:aws:iam::aws:policy/AmazonDynamoDBFullAccess"
+ }
```

Наша созданная Lambda Functions.



The screenshot displays the AWS Lambda console interface. At the top, the function name 'StopEC2' is shown with a 'Layers' section indicating '(0)' layers. Below this, the 'DynamoDB' trigger is configured with a '+ Add trigger' button. The 'Function ARN' is listed as 'arn:aws:lambda:eu-central-1:529088282556:function:StopEC2'. The 'Code source' tab is selected, showing a Python script that uses boto3 to stop EC2 instances. The script includes comments in Russian and a return statement indicating success. The console also shows tabs for 'Code', 'Test', 'Monitor', 'Configuration', 'Aliases', and 'Versions'.

```
1 import boto3
2
3 def lambda_handler(event, context):
4     ec2 = boto3.client('ec2')
5
6     print("Получено событие из DynamoDB:", event)
7
8     response = ec2.stop_instances(
9         InstanceIds=[
10             instance['InstanceId'] for instance in ec2.describe_instances()['Reservations'][0]['Instances']
11         ]
12     )
13
14     print("Остановлены инстансы:", response)
15     return {"status": "success"}
```

Проверяем работу.

У нас запущенно 2 Instates.

Instances (2) Info

Last updated less than a minute ago

Connect

Instance state

Actions

Launch instances

Find Instance by attribute or tag (case-sensitive)

All states

<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 ...	Elastic IP	IF
<input type="checkbox"/>	aws-ubuntu	i-0a393c52055d03d07	Running	t2.micro	Initializing	View alarms +	eu-central-1b	ec2-3-75-204-146.eu-c...	3.75.204.146	-	-
<input type="checkbox"/>	ubuntu	i-0c7236852ba260242	Running	t2.micro	2/2 checks passed	View alarms +	eu-central-1b	ec2-52-59-42-182.eu-c...	52.59.42.182	-	-

Создаем запись в таблице DynamoDB.

Tables (1)

Any tag key

Any tag value

Find tables

LambdaTriggerTable

LambdaTriggerTable

Autopreview

View table details

Scan or query items

Expand to query or scan items.

Completed · Items returned: 0 · Items scanned: 0 · Efficiency: 100% · RCUs consumed: 2

Table: LambdaTriggerTable - Items returned (1)

Scan started on March 13, 2025, 11:57:40

id (String)

1

Instances остановлены функция отработала.

Instances (2) Info

Last updated less than a minute ago

Connect

Instance state

Actions

Launch instances

Find Instance by attribute or tag (case-sensitive)

All states

<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 ...	Elastic IP	IF
<input type="checkbox"/>	aws-ubuntu	i-0a393c52055d03d07	Stopped	t2.micro	-	View alarms +	eu-central-1b	-	-	-	-
<input type="checkbox"/>	ubuntu	i-0c7236852ba260242	Stopped	t2.micro	-	View alarms +	eu-central-1b	-	-	-	-