

Screenshots

```
j@Js-MacBook-Pro ~ % aws configure
AWS Access Key ID [*****QNUX]:
AWS Secret Access Key [*****mikG]:
Default region name [eu-west-2]:
Default output format [json]:
```

```
j@Js-MacBook-Pro ~ % docker build -t flask-micro-app .
[+] Building 13.6s (11/11) FINISHED
=> [internal] load build definition from Dockerfile 0.0s
=> => transferring dockerfile: 292B 0.0s
=> [internal] load .dockerignore 0.0s
=> => transferring context: 2B 0.0s
=> [internal] load metadata for docker.io/library/python:3.8-slim-buster 7.9s
=> [auth] library/python:pull token for registry-1.docker.io 0.0s

j@Js-MacBook-Pro ~ % docker push 181084842437.dkr.ecr.eu-west-2.amazonaws.com/flask-back-app:latest
The push refers to repository [181084842437.dkr.ecr.eu-west-2.amazonaws.com/flask-back-app]
54a58bb976dc: Pushed
9e880bd3628c: Pushed
899c40b6f316: Pushed
048bd28b82b2: Pushed
3ed0c4ea6f65: Pushed
82ee592ec424: Pushed
```

Amazon ECR > Repositories

Private | Public

Private repositories (2)

Find repositories

View push commands Delete Edit Create repository

	Repository name ▲	URI	Created at ▼	Tag immutability	Scan frequency	Encryption type	Pull-through cache
<input type="radio"/>	flask-back-app	181084842437.dkr.ecr.eu-west-2.amazonaws.com/flask-back-app	19 May 2022, 14:52:39 (UTC+01)	Disabled	Scan on push	AES-256	Inactive
<input type="radio"/>	flask-micro-app	181084842437.dkr.ecr.eu-west-2.amazonaws.com/flask-micro-app	19 May 2022, 14:40:15 (UTC+01)	Disabled	Scan on push	AES-256	Inactive

```
j@js-macbook-pro terraform % terraform init
```

Initializing the backend...

Initializing provider plugins...

- Reusing previous version of hashicorp/aws from the dependency lock file
- Using previously-installed hashicorp/aws v4.14.0

Terraform has been successfully initialized!

You may now begin working with Terraform. Try running "terraform plan" to see any changes that are required for your infrastructure. All Terraform commands should now work.

If you ever set or change modules or backend configuration for Terraform, rerun this command to reinitialize your working directory. If you forget, other commands will detect it and remind you to do so if necessary.

```
j@js-macbook-pro terraform %
```

```
j@js-macbook-pro terraform % terraform plan
```

var.ecs_image_url

The desired ECR image URL.

Enter a value: 181084842437.dkr.ecr.eu-west-2.amazonaws.com/flask-micro-app

```
j@js-macbook-pro terraform % terraform apply
```

var.ecs_image_url

The desired ECR image URL.

Enter a value:

```
j@js-macbook-pro terraform % terraform apply
```

var.ecs_image_url

The desired ECR image URL.

Enter a value: 181084842437.dkr.ecr.eu-west-2.amazonaws.com/flask-micro-app

```
salb/1790ca9dc075e006]
```

aws_lb_listener.alb_listener: Creating...

aws_lb_listener.alb_listener: Creation complete after 0s [id=arn:aws:elasticloadbalancing:eu-west-2:181084842437:listener/app/ecsalb/1790ca9dc075e006/c47cbe27c697cfec]

aws_ecs_service.service: Creating...

aws_ecs_service.service: Creation complete after 1s [id=arn:aws:ecs:eu-west-2:181084842437:service/ecs_cluster/flask-docker]

aws_appautoscaling_target.ecs_service_scaling_target: Creating...

aws_appautoscaling_target.ecs_service_scaling_target: Creation complete after 0s [id=service/ecs_cluster/flask-docker]

aws_appautoscaling_policy.ecs_service_memory_scale_out_policy: Creating...

aws_appautoscaling_policy.ecs_service_cpu_scale_out_policy: Creating...

aws_appautoscaling_policy.ecs_service_memory_scale_out_policy: Creation complete after 1s [id=memory-target-tracking-scaling-policy]

aws_appautoscaling_policy.ecs_service_cpu_scale_out_policy: Creation complete after 1s [id=cpu-target-tracking-scaling-policy]

aws_cloudwatch_metric_alarm.ecs_service_cpu_scale_out_alarm: Creating...

aws_cloudwatch_metric_alarm.ecs_service_cpu_scale_out_alarm: Creation complete after 0s [id=CPU utilization greater than 50%]

Apply complete! Resources: 47 added, 0 changed, 0 destroyed.

Outputs:

alb_dns_name = "ecsalb-1902949784.eu-west-2.elb.amazonaws.com"

```
j@js-macbook-pro terraform %
```

EC2 > Instances > i-0d0b49af13f8adb21

Instance summary for i-0d0b49af13f8adb21

Info

Refresh

Connect

Instance state ▼

Actions ▼

Updated less than a minute ago

Instance ID

i-0d0b49af13f8adb21

IPv6 address

-

Hostname type

IP name: ip-10-0-4-93.eu-west-2.compute.internal

Instance type

m5.large

VPC ID

vpc-0e174f9bc80023229 (terraform)

Subnet ID

subnet-06eacae2be068f3c5

Public IPv4 address

-

Instance state

Running

Private IP DNS name (IPv4 only)

ip-10-0-4-93.eu-west-2.compute.internal

Elastic IP addresses

-

AWS Compute Optimizer finding

Opt-in to AWS Compute Optimizer for recommendations. | Learn more

Auto Scaling Group name

ecs-asg

Private IPv4 addresses

10.0.4.93

Public IPv4 DNS

-

Answer private resource DNS name

-

Auto-assigned IP address

-

IAM Role

ec2_role

Create Load Balancer

Actions ▼

Refresh

Filter by tags and attributes or search by keyword

1 to 1 of 1

Name	DNS name	State	VPC ID	Availability Zones
ecsalb	ecsalb-1902949784.eu-west-2.elb.amazonaws.com	Active	vpc-0e174f9bc80023229	eu-west-2c, eu-west-2b

Load balancer: ecsalb

Refresh

Close

Description

Listeners

Monitoring

Integrated services

Tags

Basic Configuration

Name

ecsalb

ARN

arn:aws:elasticloadbalancing:eu-west-2:181084842437:loadbalancer/app/ecsalb/1790ca9dc075e006

DNS name

ecsalb-1902949784.eu-west-2.elb.amazonaws.com (A Record)

State

Active

Type

application

Scheme

internet-facing

IP address type

ipv4

Security Groups (3)

Info

Refresh

Actions ▼

Export security groups to CSV

Create security group

Filter security groups

1

Settings

	Name	Security group ID	Security group name	VPC ID	Description
<input type="checkbox"/>	-	sg-04a0b7f71e27acd46	default	vpc-0e174f9bc80023229	default VPC : default
<input type="checkbox"/>	-	sg-0a5923c2210996a50	default	vpc-00583bc9e15bcc031	default VPC : default
<input type="checkbox"/>	-	sg-0f688f43ed79f0509	ecs-sg	vpc-0e174f9bc80023229	ECS security

EC2

>

Auto Scaling groups

Auto Scaling groups (1)

Edit

Delete

Create an Auto Scaling group

Search your Auto Scaling groups

< 1 >

<input type="checkbox"/>	Name ▾	Launch template/configuration 🔗 ▾	Instances ▾	Status ▾	Desired capacity ▾
<input type="checkbox"/>	ecs-asg	terraform-2022051922450467990...	1	-	1

Your VPCs (2)

Info

Actions ▾

Create VPC

Filter VPCs

< 1 >

<input type="checkbox"/>	Name ▾	VPC ID ▾	State ▾	IPv4 CIDR ▾	IF
<input type="checkbox"/>	-	vpc-00583bc9e15bcc031	✔ Available	172.31.0.0/16	-
<input type="checkbox"/>	terraform	vpc-0e174f9bc80023229	✔ Available	10.0.0.0/16	-