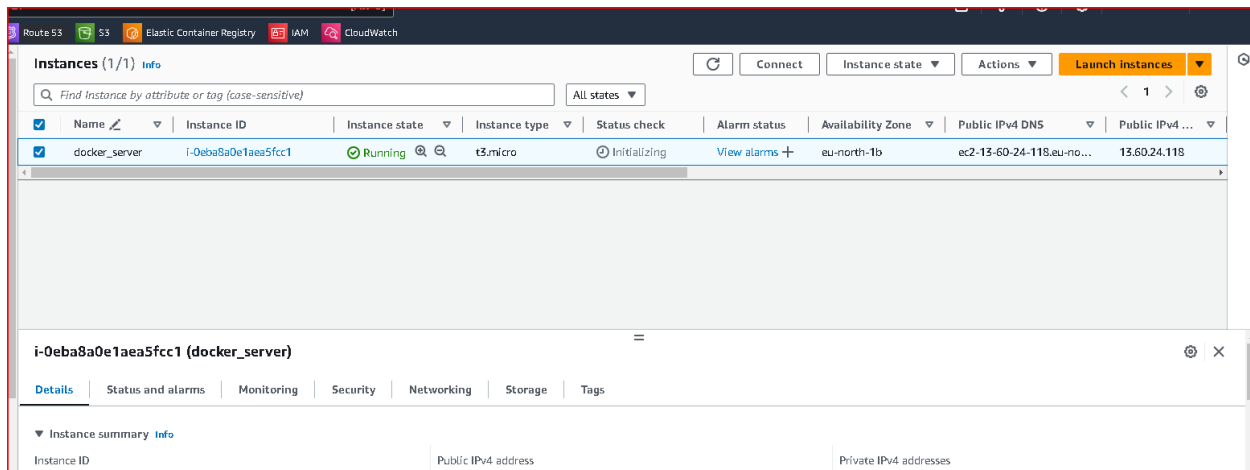


ECR and ECR POC

- Create an EC2 instance and build image of any application using Docker



sudo apt update

sudo apt install apt-transport-https ca-certificates curl software-properties-common

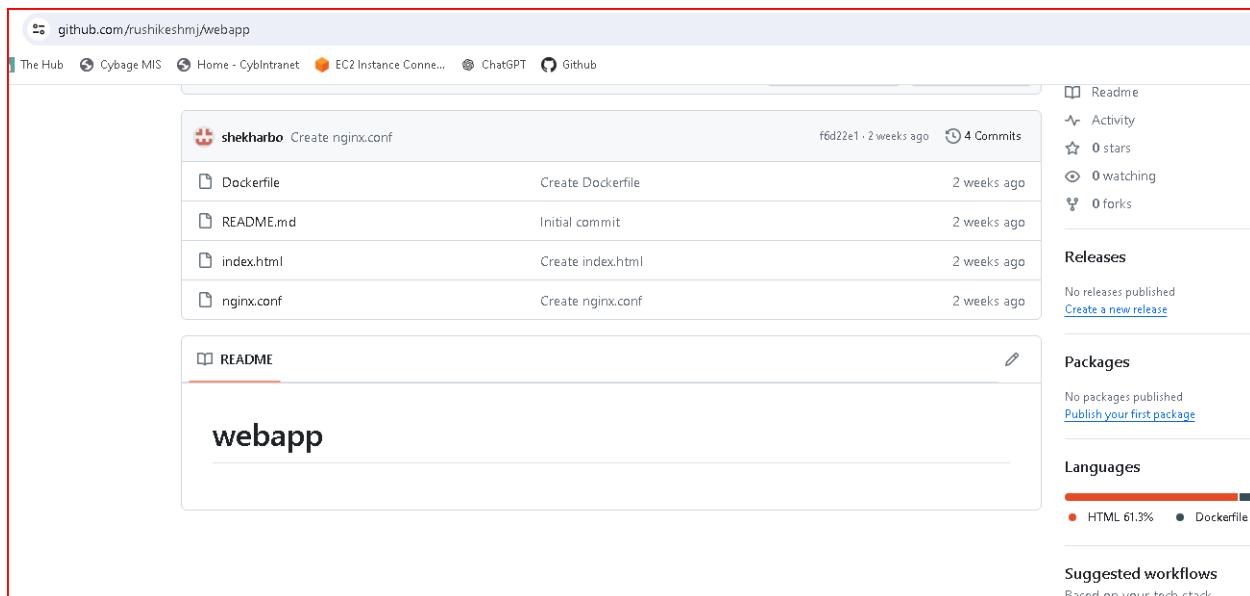
curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add -

sudo add-apt-repository "deb [arch=amd64] https://download.docker.com/linux/ubuntu \$(lsb_release -cs) stable"

sudo apt update

sudo apt install docker-ce

clone github repo : <https://github.com/rushikeshmj/webapp.git>



```
root@ip-172-31-38-110:/home/ubuntu/webapp# cd ..
root@ip-172-31-38-110:/home/ubuntu# ls
awscli-venv  webapp
root@ip-172-31-38-110:/home/ubuntu#
```

i-0eba8a0e1aea5fcc1 (docker_server)

Build docker image in local

```
root@ip-172-31-38-110:/home/ubuntu/webapp# docker build -t webapp .
[+] Building 1.2s (8/8) FINISHED
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 374B
=> [internal] load metadata for docker.io/library/nginx:latest
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [1/3] FROM docker.io/library/nginx:latest@sha256:6af79ae5de407283dcea8b00d5c37ace95441fd58a8b1d2aa1ed93f5511bb18c
=> [internal] load build context
=> => transferring context: 62B
=> CACHED [2/3] COPY nginx.conf /etc/nginx/nginx.conf
=> CACHED [3/3] COPY index.html /usr/share/nginx/html/
=> exporting to image
=> => exporting layers
=> => writing image sha256:7c95a4b2cb17c97e22b828b84964107b99c4f33b7f1821b946d7cd027eda30a8
=> => naming to docker.io/library/webapp
root@ip-172-31-38-110:/home/ubuntu/webapp#
```

Create a private ECR repo and push this docker image to ECR repo

[Amazon ECR](#) > [Private registry](#) > Repositories

Private repositories

Repositories (1)

View push commands

Delete

Actions

Create repository

< 1 > ⚙

	Repository name	URI	Created at	Tag immutability	Scan frequency	Encryption type
<input type="radio"/>	webapp	533267249366.dkr.ecr.eu-north-1.amazonaws.com/webapp	July 25, 2024, 10:06:31 (UTC+05.5)	Disabled	Manual	AES-256

```
root@ip-172-31-38-110:/home/ubuntu/webapp# docker push 533267249366.dkr.ecr.eu-north-1.amazonaws.com/webapp:latest
The push refers to repository [533267249366.dkr.ecr.eu-north-1.amazonaws.com/webapp]
b8c11a029599: Pushed
b93f90a87b69: Pushed
60e72fbb314e: Pushed
599e8de62018: Pushed
09581b9299a2: Pushed
a39383416a22: Pushed
a6355e7844d5: Pushed
fcfa12460e7d: Pushed
e0781bc8667f: Pushed
latest: digest: sha256:02331a71aa436d9c6ea7a75ec57fe20a1452fd7948c0565424bc3d118a15da5b size: 2192
root@ip-172-31-38-110:/home/ubuntu/webapp# ls
```

[Amazon ECR](#) > [Private registry](#) > [Repositories](#) > webapp

webapp

Images (1)

Delete

Details

Scan

< 1 > ⚙

	Image tag	Artifact type	Pushed at	Size (MB)	Image URI	Digest
<input type="checkbox"/>	latest	Image	July 25, 2024, 10:33:54 (UTC+05.5)	70.97	Copy URI	sha256:02331a71aa436d9...

- Deploy the application on ECS and check if the application works fine

Amazon Elastic Container Service > Task definitions > webapp-family > Revision 1 > Containers

webapp-family:1

Deploy Actions Create new revision

Overview Info

ARN arn:aws:ecs:eu-north-1:533267249366:task-definition/webapp-family:1	Status ACTIVE	Time created July 25, 2024 at 14:36 (UTC+5:30)	App environment FARGATE
Task role -	Task execution role ecsTaskExecutionRole	Operating system/Architecture Linux/X86_64	Network mode awsvpc

ContainersJSONTask placementVolumes (0)Requires attributesTags

Task size

Task CPU 1024 units (1 vCPU)	Task memory 3072 MiB (3 GB)
Task CPU maximum allocation for containers	Task memory maximum allocation for container memory reservation

CPU (unit) 0 100 200 300 400 500 600 700 800 900 1000

Memory (MiB) 0 200 400 600 800 1000 1200 1400 1600 1800 2000 2200 2400 2600 2800 3000

Create cluster :

Amazon Elastic Container Service > Clusters > webapp-cluster > Services

webapp-cluster

Refresh Update cluster Delete cluster

Cluster overview

ARN arn:aws:ecs:eu-north-1:533267249366:cluster/webapp-cluster	Status Active	CloudWatch monitoring Default	Registered container instances -
Services Draining -	Active 1	Tasks Pending -	Running -
Encryption Managed storage -	Fargate ephemeral storage -		

ServicesTasksInfrastructureMetricsScheduled tasksTags

Services (1) Info

Filter launch type Filter service type

Refresh Manage tags Update Delete service Create

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Create service :

Amazon Elastic Container Service > Clusters > webappcluster > Services > webappService > Tasks

webappService Info

Update service

Delete service

Health and metrics

Tasks

Logs

Deployments

Events

Configuration and networking

Tags

Tasks (1/1)

Filter tasks by property or value

Filter desired statusRunning

Filter launch typeAny launch type

< 1 >

⌕

Task	Last status	Desired status	Task definit...	Health status	Started at	Container insta...	Launch type	Platform versi...	CPU	Memory
af77ef27...	Running	Running	webapp-famil...	Unknown	15 minutes ago	-	FARGATE	1.4.0	1 vCPU	3 GB

Containers for task af77ef27770f47e29c3a9eb22dc78bd5

Containers (1)

Filter containers

< 1 > ⌕

Container name	Container runtime ID	Image URI	Image Digest	Status	Health status	CPU	Memory hard/soft limit
webapp-container	af77ef27770f47...	5842943...	sha256:2...	Running	Unknown	0	- / -

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Search

ENG IN

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Health and metrics

Tasks

Logs

Deployments

Events

Configuration and networking

Tags

Deployment configuration Info

View pipelines

Deployment status

Deployment type

Platform version

Min and max running tasks

Deployment failure detection

Task placement strategy and constraints

Deployments (1) Info

Filter deployments

< 1 > ⌕

Start date	Status	Failed tasks	Tasks	Version	Task definition	Revision	Last deployment	Deployment ID
July 12, 2024 at 11:01 (UTC+5:30)	Primary 100%	0	1 Running 0 Pending 1 Desired	1.4.0	webapp-family	1	Completed	ecs-svc/0261995583282768793

Events (4)

Filter events by value

< 1 > ⌕

Started at	Message	Event ID
July 12, 2024 at 11:02 (UTC+5:30)	service webappService has reached a steady state.	f76e271a-85a6-4639-88e8-36d290a5161b
July 12, 2024 at 11:02 (UTC+5:30)	service webappService deployment ecs-svc/0261995583282768793 deployment completed.	2c0cf1d5-c975-4e44-846c-9a413ffc8b5c
July 12, 2024 at 11:02 (UTC+5:30)	service webappService registered 1 targets in target-group ecs-webapp-webappService	104c431a-debd-4c41-b5a5-dbc3ae0f8f27
July 12, 2024 at 11:02 (UTC+5:30)	service webappService has started 1 tasks: task af77ef27770f47e29c3a9eb22dc78bd5.	9baf2d98-1a8d-40c9-b560-72cf9e69f1c

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Welcome to My Dockerized Web App!

This is a simple example of a Dockerized web application.