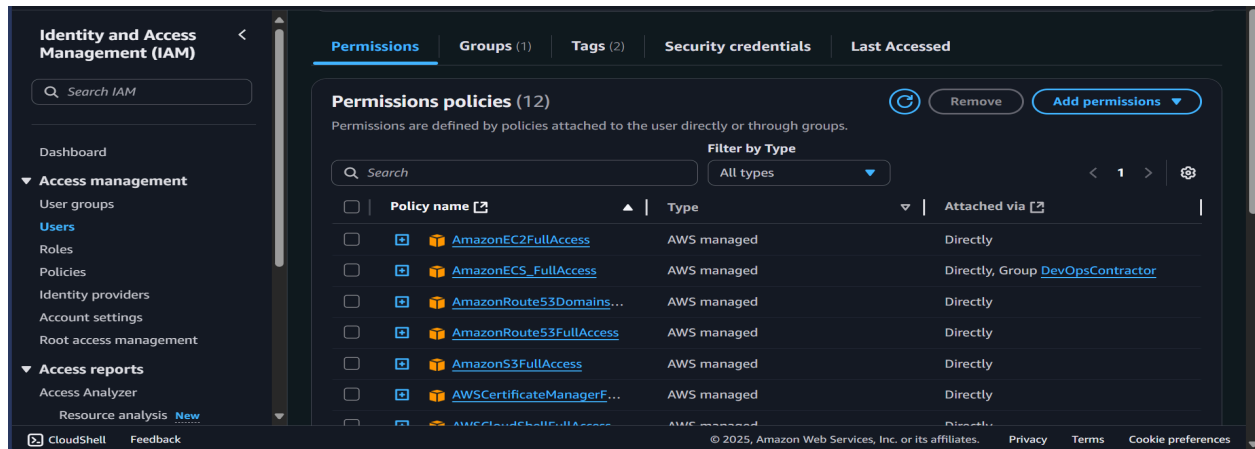
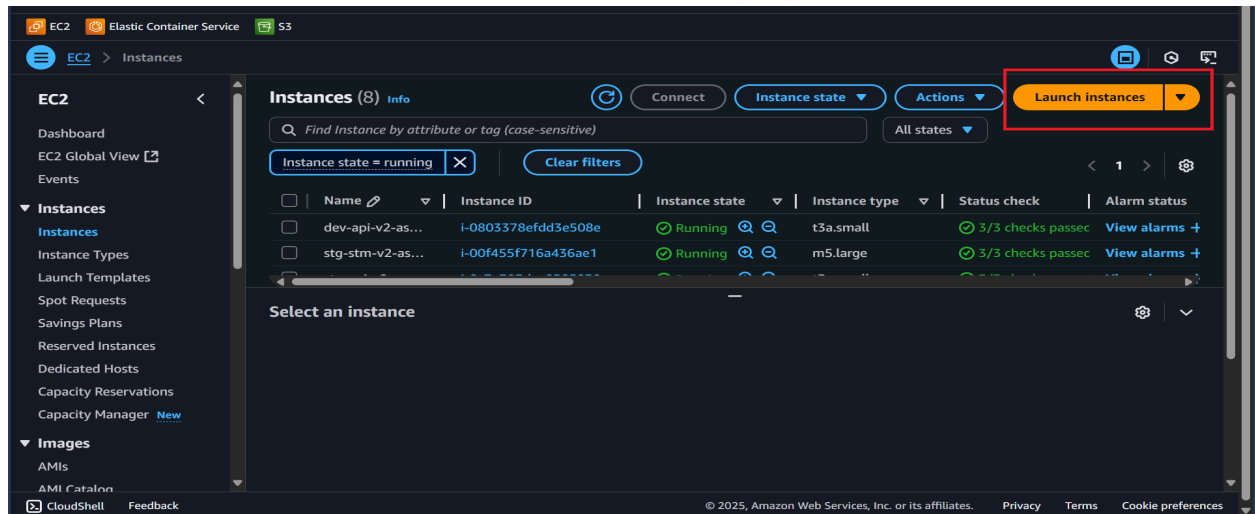


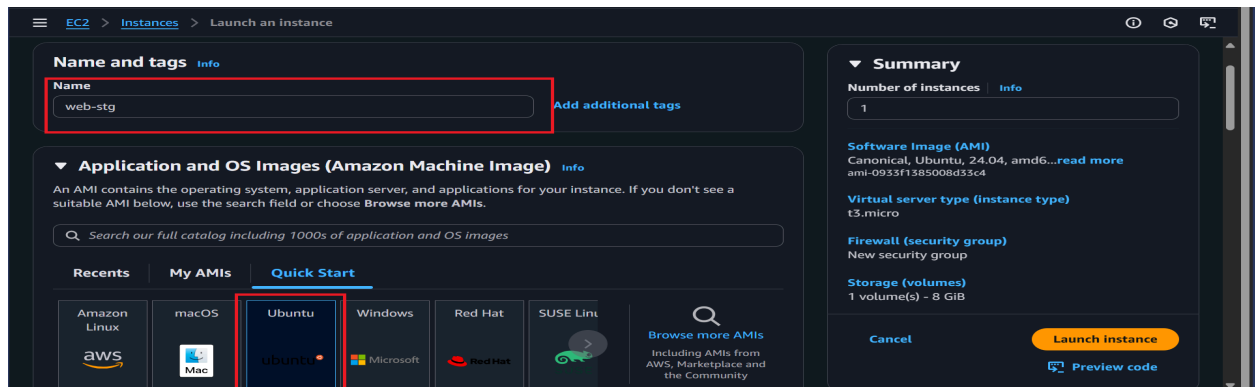
Check IAM User Has EC2 ACCESS:
My user has EC2FULLACCESS



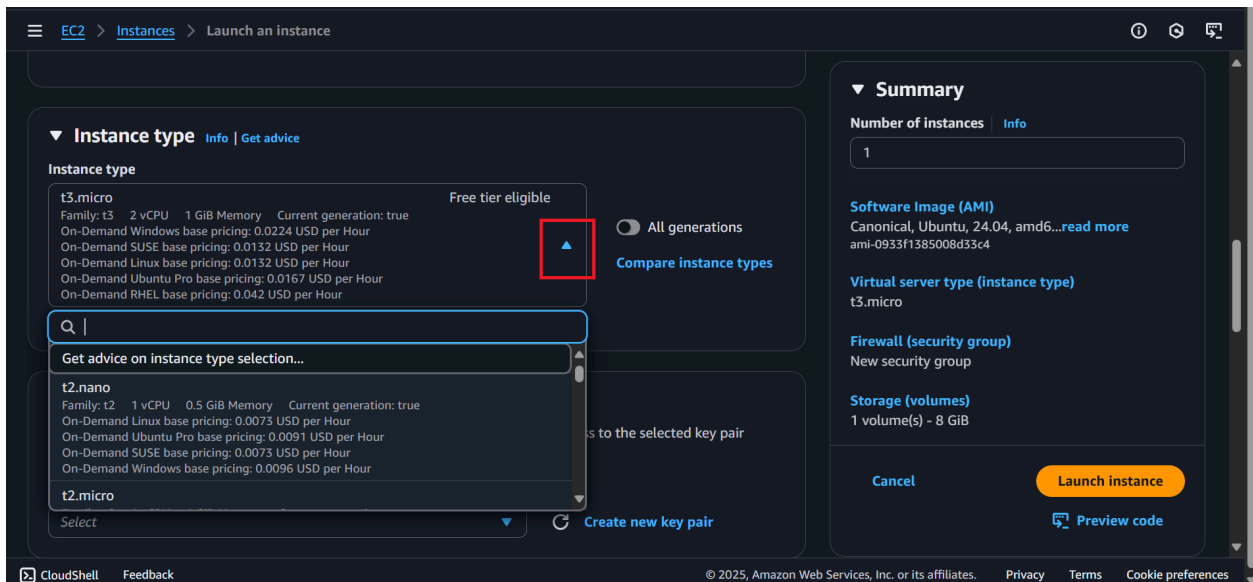
Create EC2 Instance:



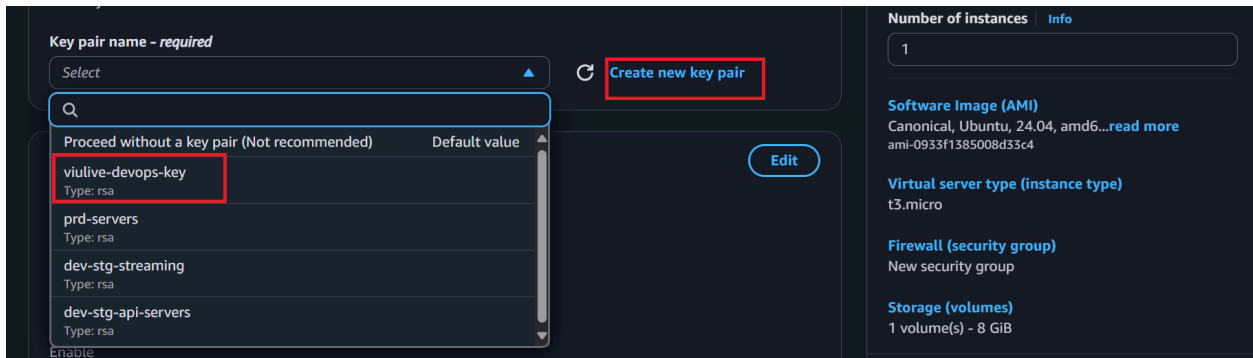
Add the Instance name and distribution type



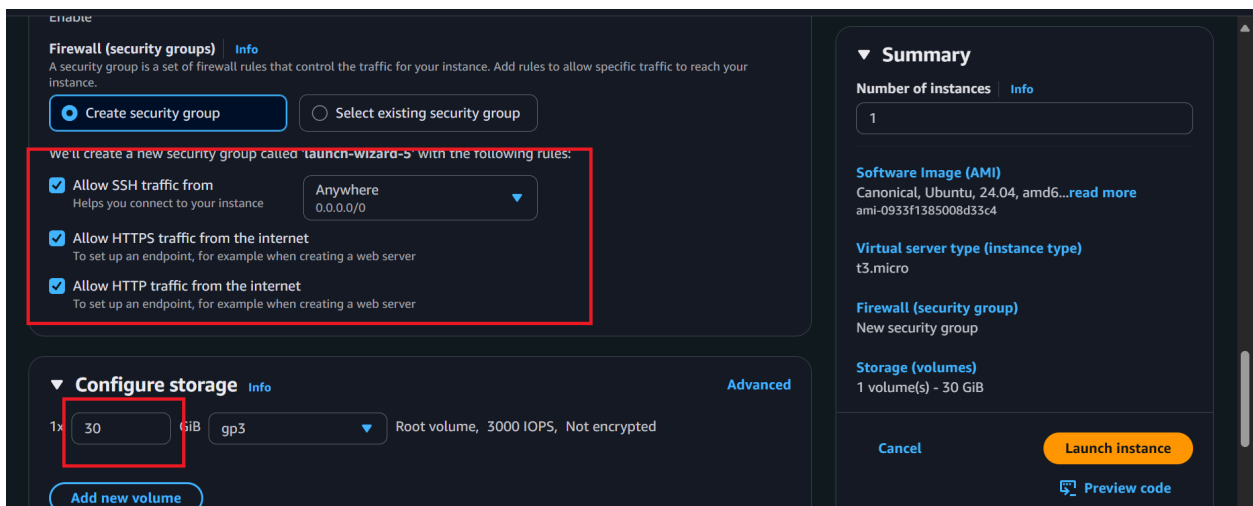
Select the Instance Type



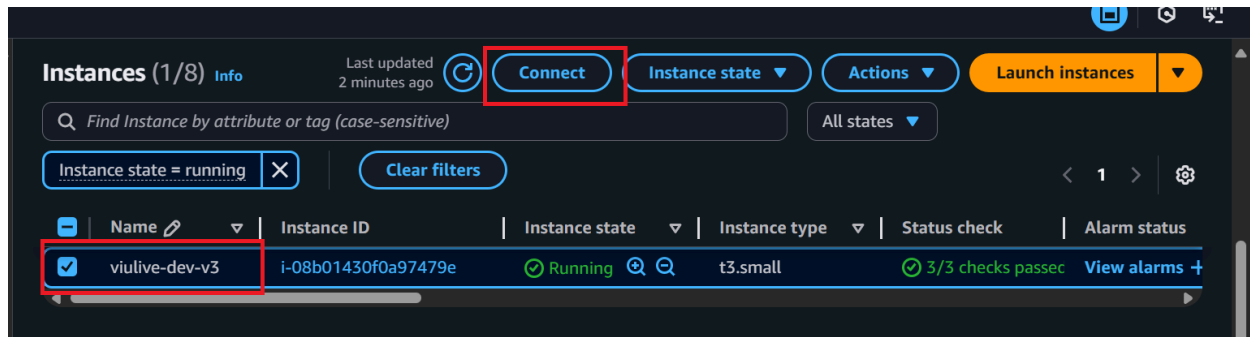
Create New Key Pair or select from already present keys



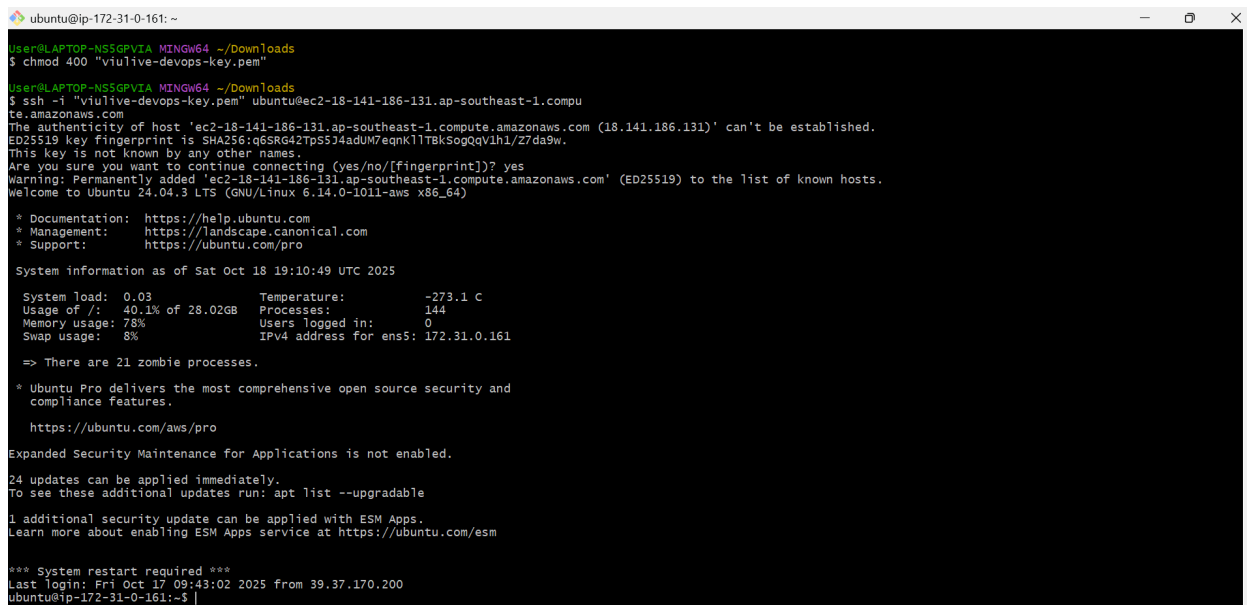
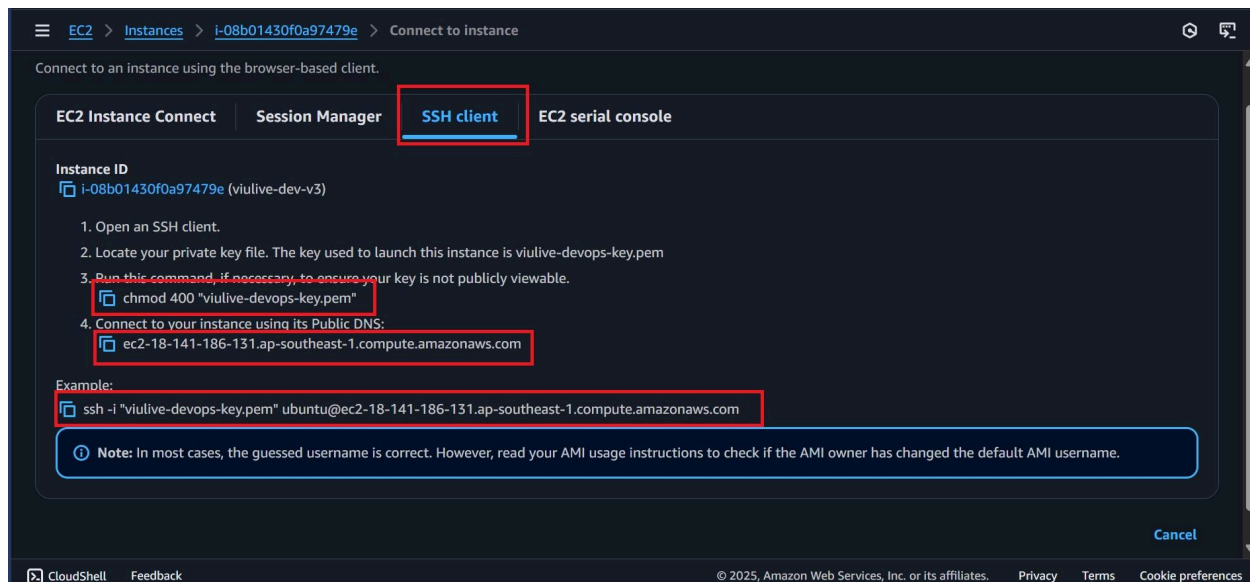
Allow Ports and Update storage
Press Launch button



Connect to Instance:



Run these commands in the folder where you have save the private key:



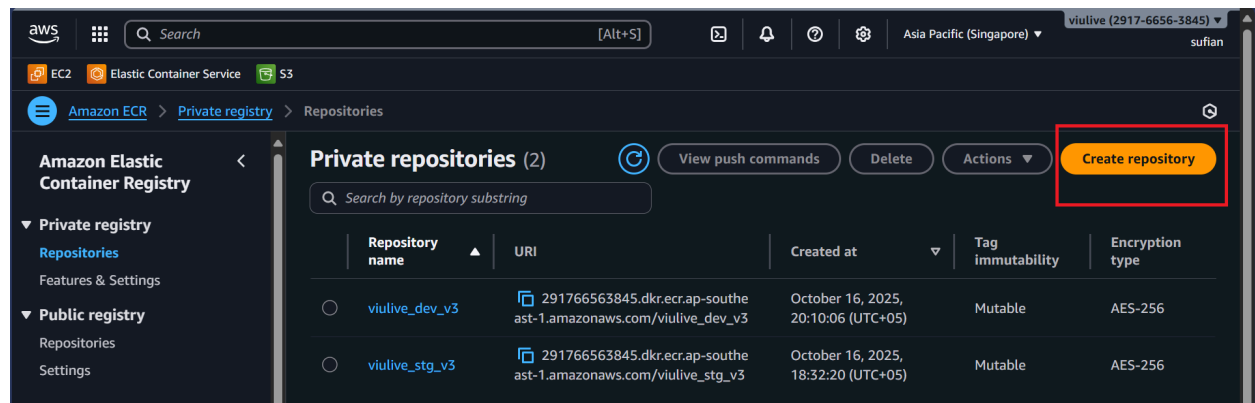
Install docker on Instance:

sudo apt update

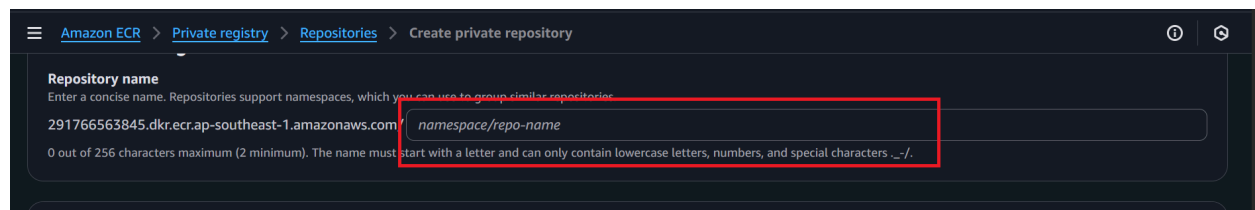
sudo apt install [docker.io](https://docs.docker.com/engine/install/ubuntu/)

```
ubuntu@ip-172-31-0-161:~$ sudo apt install docker.io
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
docker.io is already the newest version (28.2.2-0ubuntu1-24.04.1).
0 upgraded, 0 newly installed, 0 to remove and 24 not upgraded.
ubuntu@ip-172-31-0-161:~$
```

Create ECR Registry:



Add name

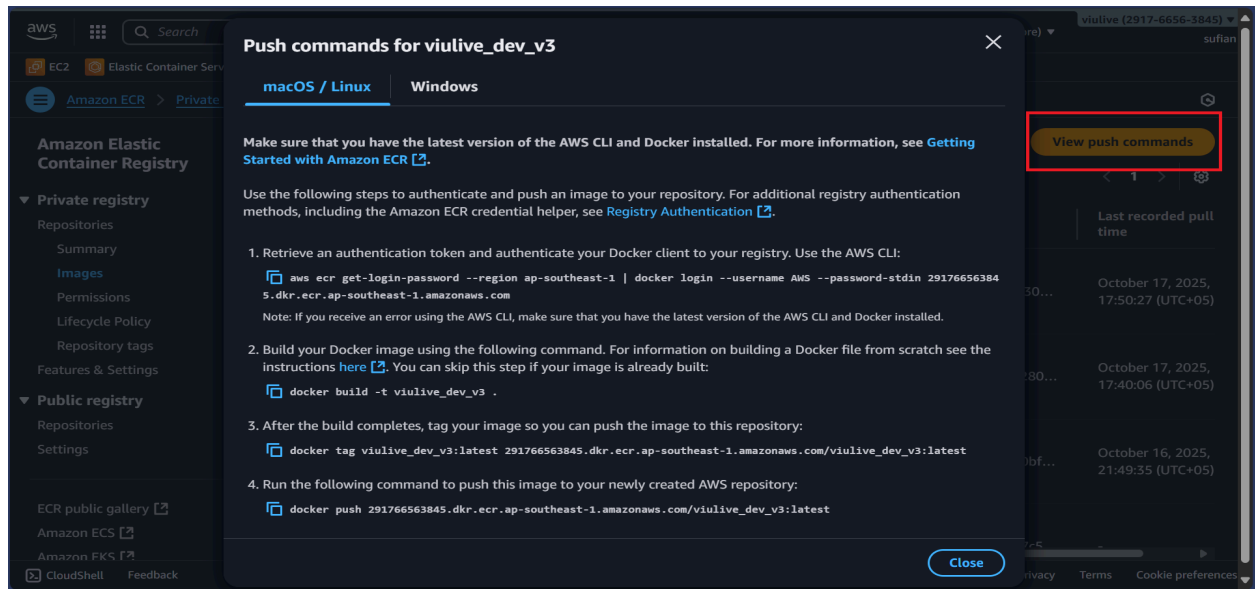


Select Create Button



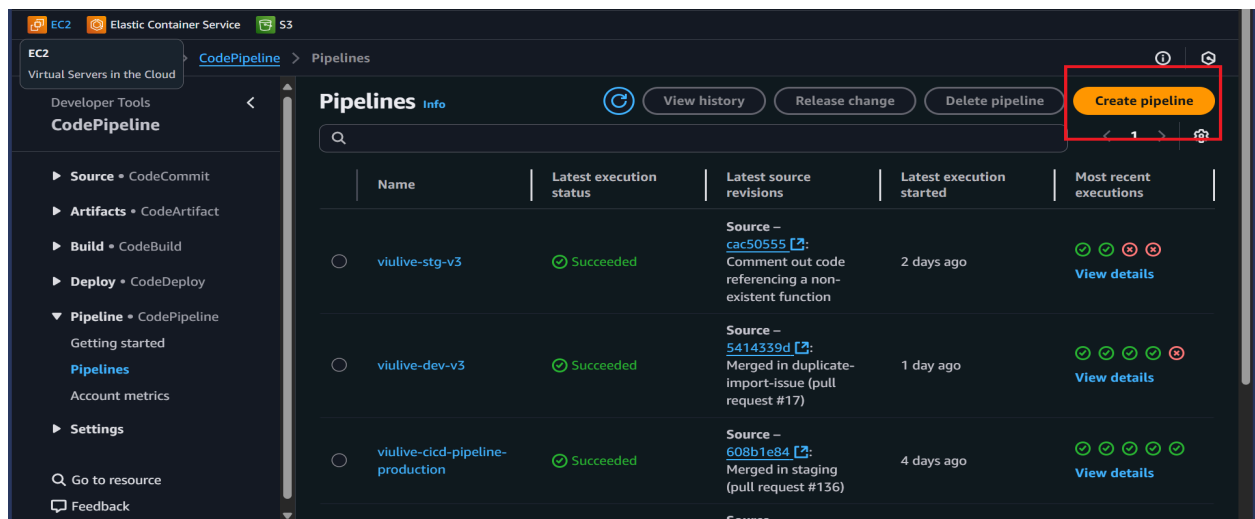
Click on View Push commands

These commands are useful for pipeline or manual push to ECR

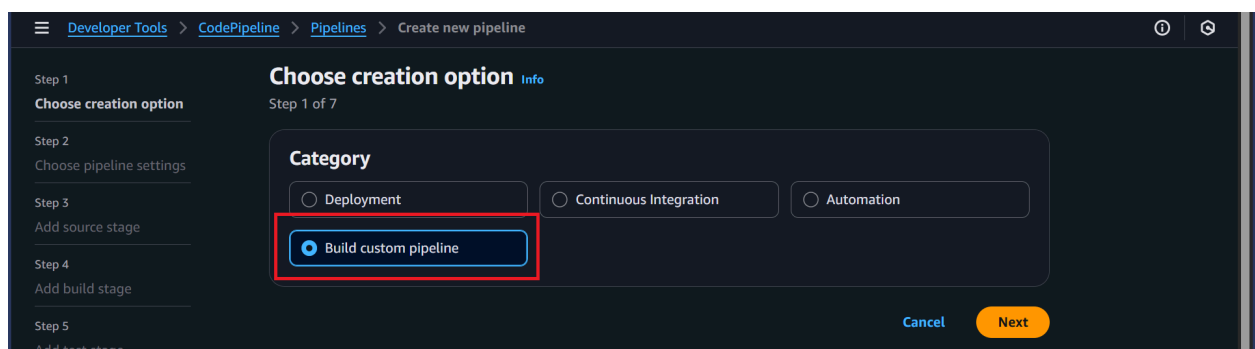


Create Pipeline:

Click on the Create pipeline button



Select Custom Pipeline



Add Pipeline Name and Select Default New service role (For custom role click on Existing service role)

Developer Tools > CodePipeline > Pipelines > Create new pipeline

Step 2
Choose pipeline settings

Step 3
Add source stage

Step 4
Add build stage

Step 5
Add test stage

Step 6
Add deploy stage

Step 7
Review

Pipeline settings

Pipeline name
Enter the pipeline name. You cannot edit the pipeline name after it is created.
viulive-stg
No more than 100 characters.

Execution mode Info
Choose the execution mode for your pipeline. This determines how the pipeline is run.
☐ Superseded
☒ Queued
☐ Parallel

Service role
☒ New service role
Create a service role in your account.
☐ Existing service role
Choose an existing service role from your account.

Role name
AWSCodePipelineServiceRole-ap-southeast-1-viulive-stg
Type your service role name.

☒ Allow AWS CodePipeline to create a service role so it can be used with this new pipeline

Select The Source Provider and Existing Connection

Developer Tools > CodePipeline > Pipelines > Create new pipeline

Step 2
Choose pipeline settings

Step 3
Add source stage

Step 4
Add build stage

Step 5
Add test stage

Step 6
Add deploy stage

Step 7
Review

Source

Source provider
This is where you stored your input artifacts for your pipeline. Choose the provider and then provide the connection details.
Bitbucket

Connection
Choose an existing connection that you have already configured, or create a new one and then return to this task.
Q or [Connect to Bitbucket](#)

- viulive-v3
arn:aws:codeconnections:ap-southeast-1:291766563845:connection/d1ced027-ae99-4de2-9c2c-5a5266be69b6
- viulive-frontend
arn:aws:codeconnections:ap-southeast-1:291766563845:connection/fb6a4f30-094e-42d5-a33c-6c0fc0a17c9b
- viulive-bitbucket-repo
arn:aws:codeconnections:ap-southeast-1:291766563845:connection/01e02d02-417b-4293-9521-7ce9e62dc567

Output artifact format
Choose the output artifact format.
☒ CodePipeline default
☐ Full clone

Select Repo Name and Default Branch

Repository name
Choose a repository in your Bitbucket account.
Q mitrotek/viulive-frontend-nextjs X

You can type or paste the group path to any project that the provided credentials can access. Use the format 'group/subgroup/project'.

Default branch
Default branch will be used only when pipeline execution starts from a different source or manually started.
Q develop X

Create build:
Select AWS CodeBuild and Create Project

EC2 Elastic Container Service S3

Developer Tools > CodePipeline > Pipelines > Create new pipeline

Choose creation option Step 4 of 7

Step 2 Choose pipeline settings

Step 3 Add source stage

Step 4 Add build stage

Step 5 Add test stage

Step 6 Add deploy stage

Step 7 Review

Build - optional

Build provider
Choose the tool you want to use to run build [commands-and-specify-artifacts-for-your-build-action](#).

☐ Commands ☒ Other build providers

AWS CodeBuild

Project name
Choose a build project that you have already created in the AWS CodeBuild console. Or create a build project in the AWS CodeBuild console and then return to this task.

or [Create project](#)

☐ Define buildspec override - optional
Buildspec file or definition that overrides the latest one defined in the build project, for this build only.

Environment variables - optional
Choose the key, value, and type for your CodeBuild environment variables. In the value field, you can reference variables generated by CodePipeline. [Learn more](#)

[Add environment variable](#)

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Add Project Name:

Create build project

Project configuration

Project name

viulive-stg

A project name must be 2 to 255 characters. It can include the letters A-Z and a-z, the numbers 0-9, and the special characters - and _.

Project type
Select what type of project you would like to create. [Info](#)

☒ **Default project**
Create a custom CodeBuild project.

☐ **Runner project**
Create a CodeBuild managed runner for workflows in GitHub Actions, GitHub Enterprise Actions, GitLab, or Buildkite.

Select Operating system related settings

Operating system

Ubuntu

Runtime(s)

Standard

Image

aws/codebuild/standard:7.0

Image version

Always use the latest image for this runtime version

Select Docker Privileges

Privileged

☒ Enable this flag if you want to build Docker images or want your builds to get elevated privileges

Add VPC Setting

VPC

Select a VPC that your AWS CodeBuild project will access.

vpc-70438917

Subnets

Select the VPC subnets that AWS CodeBuild should use to set up your VPC configuration. For high availability, we recommend selecting multiple subnets from multiple Availability Zones. Ensure that your subnets include a NAT gateway.

subnet-96dc44f1 ap-southeast-1a default1

Security groups

Select the VPC security groups that AWS CodeBuild should use to work with your VPC. Ensure that your security groups allow outbound connections.

sg-0180357f12e61b7e8 launch-wizard-1-ffmpeg

Select The Compute Type

Compute

☒ 2 vCPUs, 4 GiB memory

☐ 4 vCPUs, 8 GiB memory

☐ 8 vCPUs, 16 GiB memory

☐ 36 vCPUs, 72 GiB memory

☐ 72 vCPUs, 144 GiB memory

Select the Insert Build Commands and switch to editor

Build specifications

☒ Insert build commands
Store build commands as build project configuration

☐ Use a buildspec file
Store build commands in a YAML-formatted buildspec file

Build commands

Enter commands you want to run during the build phase. Separate each build command with "&&." For example, "mvn test && mvn package." Use a buildspec file to run commands in other phases or if you have a long list of commands.

e.g. echo "Hello World"

Switch to editor


```

1 version: 0.2
2
3 env:
4   variables:
5     AWS_REGION: "ap-southeast-1"
6     ACCOUNT_ID: "291766563845"
7     REPO_NAME: "viulive_dev_v3"
8     IMAGE_TAG: "latest"
9     EC2_HOST: "ec2-18-141-186-131.ap-southeast-1.compute.amazonaws.com"
10    EC2_USER: "ubuntu"
11
12 phases:
13   pre_build:
14     commands:
15       - echo "Logging in to Amazon ECR..."
16       - aws ecr get-login-password --region $AWS_REGION | docker login --username AWS --p
17
18   build:
19     commands:
20       - echo "Building Docker image..."
21       - docker build -t $REPO_NAME .
22

```

```

3   pre_build:
4     commands:
5       - echo "Logging in to Amazon ECR..."
6       - aws ecr get-login-password --region $AWS_REGION | docker login --username AWS --p
7
8   build:
9     commands:
10      - echo "Building Docker image..."
11      - docker build -t $REPO_NAME .
12
13      - echo "Tagging Docker image..."
14      - docker tag $REPO_NAME:latest $ACCOUNT_ID.dkr.ecr.$AWS_REGION.amazonaws.com/$REPO_
15
16   post_build:
17     commands:
18       - echo "Pushing Docker image to ECR..."
19       - docker push $ACCOUNT_ID.dkr.ecr.$AWS_REGION.amazonaws.com/$REPO_NAME:$IMAGE_TAG
20       - echo "✅ Docker image successfully pushed to ECR!"
21
22       - echo "Setting up SSH private key..."
23       - |
24         cat <<'EOF' > /tmp/deploy_key.pem

```

```

25 EOF
26
27 - chmod 600 /tmp/deploy_key.pem
28 - echo "Deploying to EC2 instance..."
29 - ssh -o StrictHostKeyChecking=no -i /tmp/deploy_key.pem $EC2_USER@$EC2_HOST "
30   docker login -u AWS -p \$(aws ecr get-login-password --region $AWS_REGION) $ACCOUNT
31   docker pull $ACCOUNT_ID.dkr.ecr.$AWS_REGION.amazonaws.com/$REPO_NAME:$IMAGE_TAG &
32   docker stop $REPO_NAME || true &&
33   docker rm $REPO_NAME || true &&
34   docker run -d --name $REPO_NAME -p 81:3000 $ACCOUNT_ID.dkr.ecr.$AWS_REGION.amazon
35   "
36
37 artifacts:
38   files:
39     - "**/*"

```

S3

☐ S3 logs - optional
Checking this option will upload build output logs to S3.

Cancel **Continue to CodePipeline**

Select the Build Project

Step 5
Add test stage

Step 6
Add deploy stage

Step 7
Review

Project name
Choose a build project that you have already created in the AWS CodeBuild console. Or create a build project in the AWS CodeBuild console and then return to this task.

Q viulive-stg-v3 X or **Create project**

viulive-dev-v3

viulive-stg-v3

viulive-cicd-build-prod

viulive-cicd-build-staging

viulive-cicd-build-dev

[Add environment variable](#)

Skip Other stages

Step 1
[Choose creation option](#)

Step 2
[Choose pipeline settings](#)

Step 3
[Add source stage](#)

Step 4
[Add build stage](#)

Step 5
Add test stage

Step 6
[Add deploy stage](#)

Add test stage info
Step 5 of 7

Test - optional

Test provider
Choose how you want to test your application or content. Choose the provider, and then provide the configuration details for that provider.

☒ Enable automatic retry on stage failure

Cancel Previous **Skip test stage** Next

Click on Create Pipeline

Step 4: Add build stage

Build action provider

Build action provider
AWS CodeBuild

ProjectName
viulive-stg-v3

Commands
-

Enable automatic retry on stage failure
Enabled

Cancel Previous **Create pipeline**

Find CodePipeline Role

Roles (51) Info

An IAM role is an identity you can create that has specific permissions with credentials that are valid for short durations. Roles can be assumed by entities that you trust.

Q viulive-stg-v3 X 2 matches < 1 > ⚙

<input type="checkbox"/>	Role name	Trusted entities	Last activity
<input type="checkbox"/>	AWSCodePipelineServiceRole-ap-southeast-1-viulive-stg-v3	AWS Service: codepipeline	3 days ago
<input type="checkbox"/>	codebuild-viulive-stg-v3-service-role	AWS Service: codebuild	3 days ago

Add this policy

Permissions Trust relationships Tags Last Accessed Revoke sessions

Permissions policies (2) Info

You can attach up to 10 managed policies.

Filter by Type

Q Search All types < 1 > ⚙

<input type="checkbox"/>	Policy name	Type	Attached entities
<input type="checkbox"/>	AmazonEC2ContainerReg...	AWS managed	4
<input type="checkbox"/>	CodeBuildBasePolicy-viulive...	Customer managed	1

On EC2 Install and configure aws:

```
2 curl "https://awscli.amazonaws.com/awscli-exe-linux-x86_64.zip" -o "awscliv2.zip"
3 unzip awscliv2.zip
4 sudo apt install unzip
5 unzip awscliv2.zip
6 sudo ./aws/install
7 aws --version
8 aws configure
```

Check Pipeline:

viulive-stg-v3 Edit Stop execution Create trigger Clone pipeline Release change

Pipeline Executions Triggers Settings Tags Stage

Source c6535b07-6e0e-4bb8-91dd-c7c1fe9fc477 All actions succeeded.

Build c6535b07-6e0e-4bb8-91dd-c7c1fe9fc477 All actions succeeded.

Check Registry:
(Images are stored successfully)

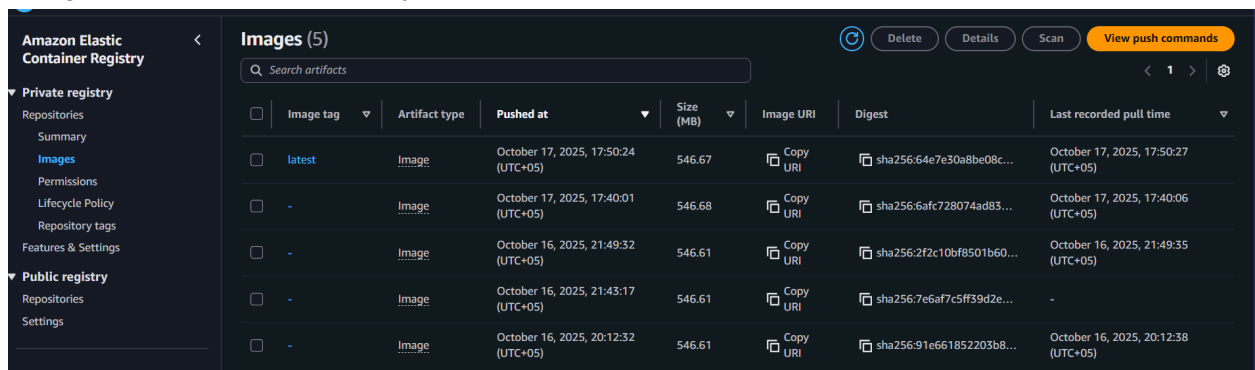
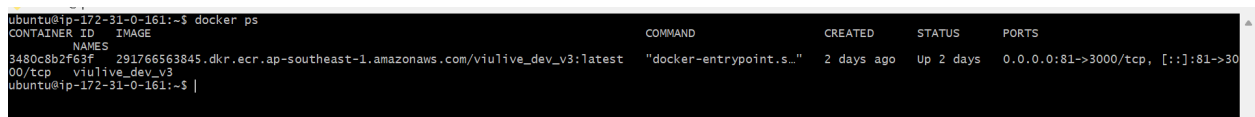


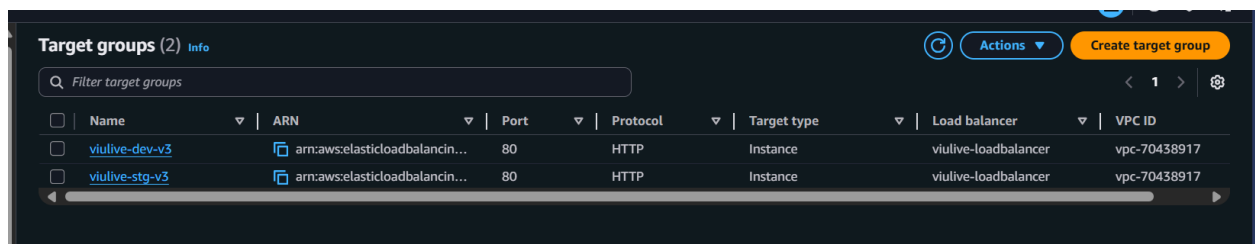
Image tag	Artifact type	Pushed at	Size (MB)	Image URI	Digest	Last recorded pull time
latest	Image	October 17, 2025, 17:50:24 (UTC+05)	546.67	Copy URI	sha256:64e7e30a8be08c...	October 17, 2025, 17:50:27 (UTC+05)
-	Image	October 17, 2025, 17:40:01 (UTC+05)	546.68	Copy URI	sha256:6afc728074ad83...	October 17, 2025, 17:40:06 (UTC+05)
-	Image	October 16, 2025, 21:49:32 (UTC+05)	546.61	Copy URI	sha256:2f2c10bf8501b60...	October 16, 2025, 21:49:35 (UTC+05)
-	Image	October 16, 2025, 21:43:17 (UTC+05)	546.61	Copy URI	sha256:7e6af7c5ff39d2e...	-
-	Image	October 16, 2025, 20:12:32 (UTC+05)	546.61	Copy URI	sha256:91e661852203b8...	October 16, 2025, 20:12:38 (UTC+05)

Check EC2 For containers:



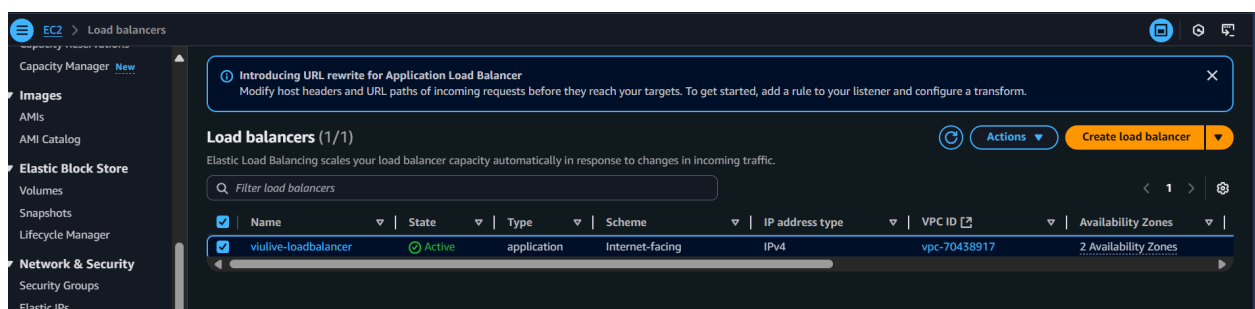
CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS
3480c8b2f63f	291766563845.dkr.ecr.ap-southeast-1.amazonaws.com/viulive_dev_v3:latest	"docker-entrypoint.s..."	2 days ago	Up 2 days	0.0.0.0:81->3000/tcp, [::]:81->3000/tcp

Target Groups (Two pipelines and Two instances)



Name	ARN	Port	Protocol	Target type	Load balancer	VPC ID
viulive-dev-v3	arn:aws:elasticloadbalancing:ap-southeast-1:291766563845:targetgroup/viulive-dev-v3:1	80	HTTP	Instance	viulive-loadbalancer	vpc-70438917
viulive-stg-v3	arn:aws:elasticloadbalancing:ap-southeast-1:291766563845:targetgroup/viulive-stg-v3:1	80	HTTP	Instance	viulive-loadbalancer	vpc-70438917

Add Loadbalancer:



Name	State	Type	Scheme	IP address type	VPC ID	Availability Zones
viulive-loadbalancer	Active	application	Internet-facing	IPv4	vpc-70438917	2 Availability Zones

Create Listener and rules:

I'm using the Host header to filter two domains and send request to different domains

Listeners and rules (2) [Info](#)

A listener checks for connection requests on its configured protocol and port. Traffic received by the listener is routed according to the default action and any additional rules.

Filter listeners

<input type="checkbox"/>	Protocol:Port	Default action	Rules	ARN	Security policy	Default SSL/TLS certificate
<input type="checkbox"/>	HTTPS:443	<ul style="list-style-type: none"> Forward to target group viulive-stg-v3 (1 (100%)) Target group stickiness: Off 	3 rules	ARN	ELBSecurityPolicy-TLS13-1-2-...	*.viulive.com (Certificate ID: ...)
<input type="checkbox"/>	HTTP:80	<ul style="list-style-type: none"> Forward to target group viulive-stg-v3 (1 (100%)) Target group stickiness: Off 	3 rules	ARN	Not applicable	Not applicable

Port 443 Rules:

Protocol:Port
HTTPS:443

Load balancer
[viulive-loadbalancer](#)

Default SSL/TLS certificate
*.viulive.com (Certificate ID: abe7d258-56dc-41a2-9dbd-ed7fa52b4c49) [↗](#)

Default actions

- Forward to target group [viulive-stg-v3](#) (1 (100%))
Target group stickiness: Off

Listener ARN
 arn:aws:elasticloadbalancing:ap-southeast-1:291766563845:listener/app/viulive-loadbalancer/c128f3a22aa8872c/47299692796590fd

Rules | Certificates | Security | Attributes | Tags

Listener rules (3) [Info](#)

Rule limits [↻](#) [Actions](#) [Add rule](#)

Traffic received by the listener is routed according to the default action and any additional rules. Rules are evaluated in priority order from the lowest value to the highest value.

Filter rules

<input type="checkbox"/>	Priority	Name tag	Conditions (If)	Transforms	Actions (Then)	Actions
<input type="checkbox"/>	1	stg-web-v3.viulive.com	Host header (value) = stg-web-v3.viulive.com	-	<ul style="list-style-type: none"> Forward to target group viulive-stg-v3 (1 (100%)) Target group stickiness: Off 	
<input type="checkbox"/>	2	dev-web-v3.viulive.com	Host header (value) = dev-web-v3.viulive.com	-	<ul style="list-style-type: none"> Forward to target group viulive-dev-v3 (1 (100%)) Target group stickiness: Off 	
<input type="checkbox"/>	Last	Default	If no other rule applies	-	<ul style="list-style-type: none"> Forward to target group viulive-stg-v3 (1 (100%)) Target group stickiness: Off 	

Port 80 Rules:

Protocol:Port
HTTP:80

Load balancer
[viulive-loadbalancer](#)

Default actions

- Forward to target group [viulive-stg-v3](#) (1 (100%))
Target group stickiness: Off

Listener ARN
 arn:aws:elasticloadbalancing:ap-southeast-1:291766563845:listener/app/viulive-loadbalancer/c128f3a22aa8872c/b0c5c5e4fd2764c7

Rules | Attributes | Tags

Listener rules (3) [Info](#)

Rule limits [↻](#) [Actions](#) [Add rule](#)

Traffic received by the listener is routed according to the default action and any additional rules. Rules are evaluated in priority order from the lowest value to the highest value.

Filter rules

<input type="checkbox"/>	Priority	Name tag	Conditions (If)	Transforms	Actions (Then)	Actions
<input type="checkbox"/>	1	stg-web-v3.viulive.com/	Host header (value) = stg-web-v3.viulive.com	-	<ul style="list-style-type: none"> Forward to target group viulive-stg-v3 (1 (100%)) Target group stickiness: Off 	
<input type="checkbox"/>	2	dev-web-v3.viulive.com	Host header (value) = dev-web-v3.viulive.com	-	<ul style="list-style-type: none"> Forward to target group viulive-dev-v3 (1 (100%)) Target group stickiness: Off 	
<input type="checkbox"/>	Last (default)	Default	If no other rule applies	-	<ul style="list-style-type: none"> Forward to target group viulive-stg-v3 (1 (100%)) Target group stickiness: Off 	

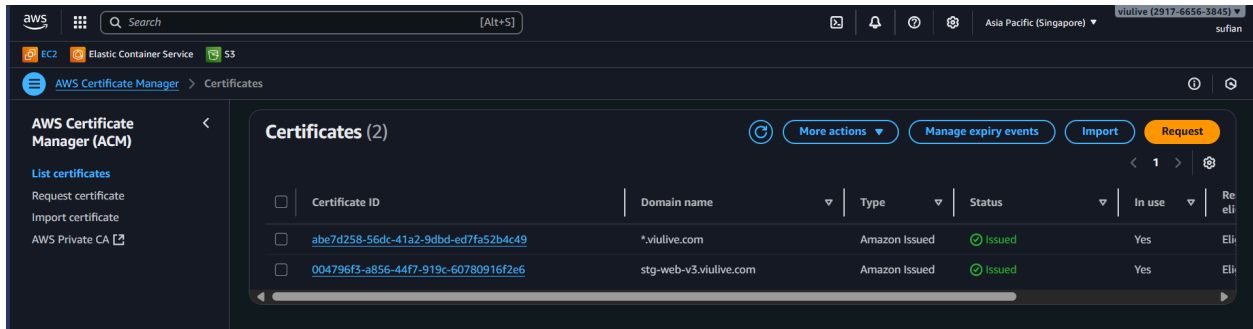
Route 53 Configuration: Add A record and connect it to loadbalancer



A screenshot of the AWS Route 53 console showing a table of DNS records. The first record is selected with a blue checkmark. The record details are as follows:

Record Name	Type	Weight	Routing Policy	Failover	Target	Alias
dev-web-v3.viulive.com	A	Simple	-	Yes	dualstack.viulive-loadbalanc...	-

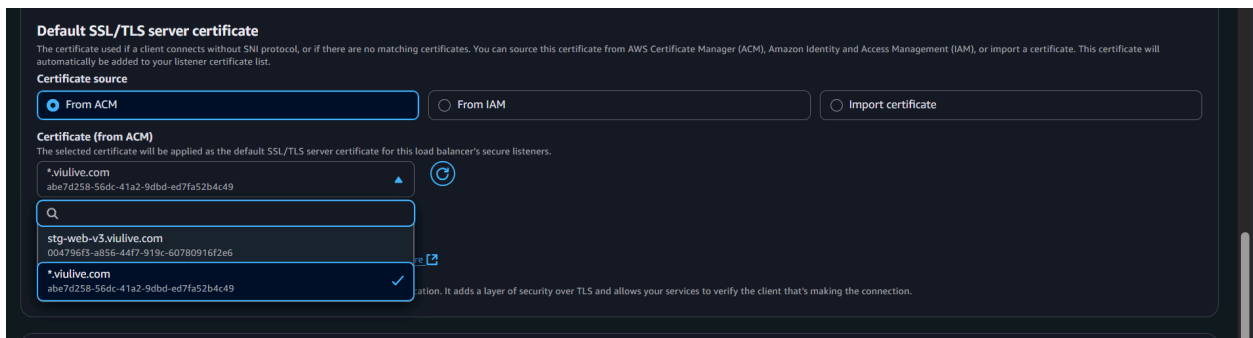
Generate Certificate:



A screenshot of the AWS Certificate Manager (ACM) console. The left sidebar shows the 'Certificates' section. The main area displays a table of certificates. Two certificates are listed, both with a status of 'Issued'.

Certificate ID	Domain name	Type	Status	In use	Reliability
abe7d258-56dc-41a2-9dbd-ed7fa52b4c49	*.viulive.com	Amazon Issued	Issued	Yes	Eligible
004796f3-a856-44f7-919c-60780916f2e6	stg-web-v3.viulive.com	Amazon Issued	Issued	Yes	Eligible

Attach Certificate to load balancer:



A screenshot of the 'Default SSL/TLS server certificate' configuration page in the AWS console. The page shows the 'Certificate source' section with three radio buttons: 'From ACM' (selected), 'From IAM', and 'Import certificate'. Below this, the 'Certificate (from ACM)' section shows a list of certificates. The certificate '*.viulive.com' is selected with a blue checkmark. The certificate details are as follows:

Certificate	Domain name	Type	Status
*.viulive.com	abe7d258-56dc-41a2-9dbd-ed7fa52b4c49	Amazon Issued	Issued

