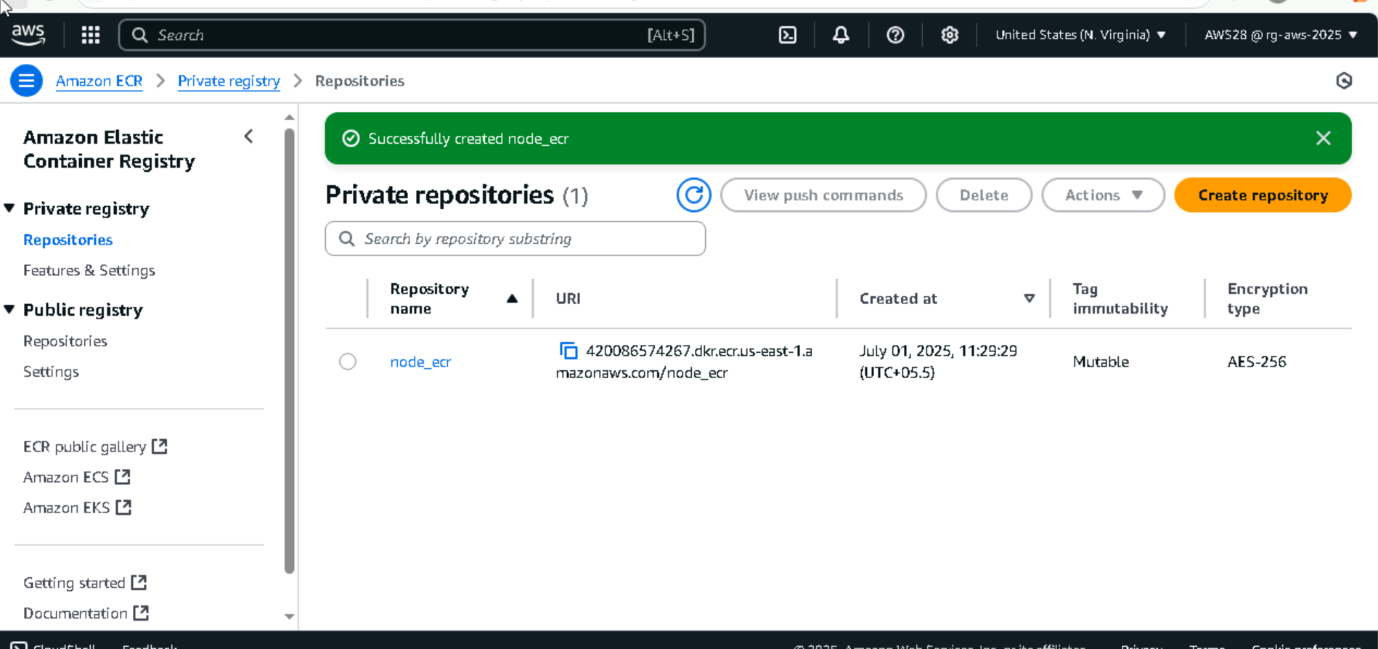
**1.Establish an end to end ci/cd pipeline in aws to build a docker image of a simple web application, push it to amazon container registry(ecr) and then deploy it to an amazon EKS cluster.**

**Provision aws resources**

Amazon ECR: created a ecr repository

A screenshot of a computer

AI-generated content may be incorrect.

Amazon EKS cluster: created a eks cluster using cli

Command :

A screenshot of a computer

AI-generated content may be incorrect.A screenshot of a computer program

AI-generated content may be incorrect.

**Cluster is created**

A screenshot of a computer

AI-generated content may be incorrect.

**Node group also successfully created**

A screenshot of a computer

AI-generated content may be incorrect.

**ECR-EKS inegration**

For this code build need a permission to ecr that I have give me in IAM code build role for I’ve given permissions

A screenshot of a computer

AI-generated content may be incorrect.

**EKS inegration:** I havegiven a permission to acces code pipeline to eks cluster..that I’ve in eks cluster -> acces. Given acces ..codepipeline service role arn ad into thi eks cluste and I given a eks cluster admin policyA screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a computer

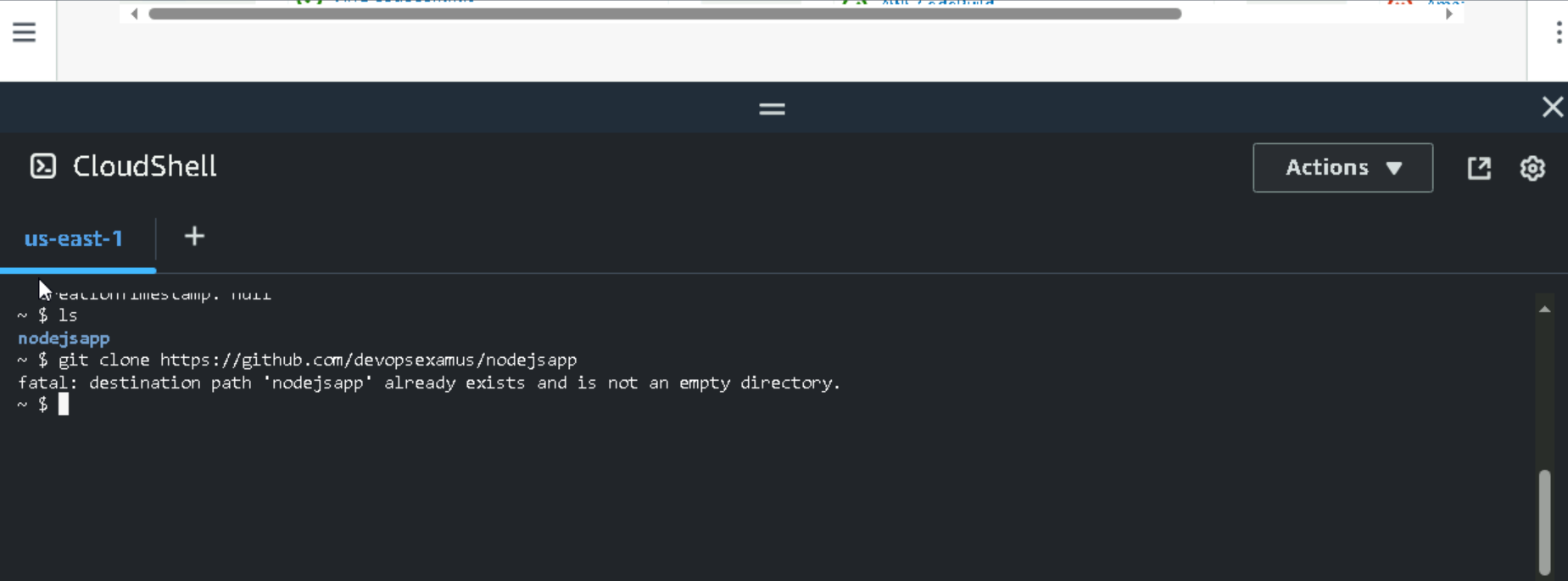
AI-generated content may be incorrect.

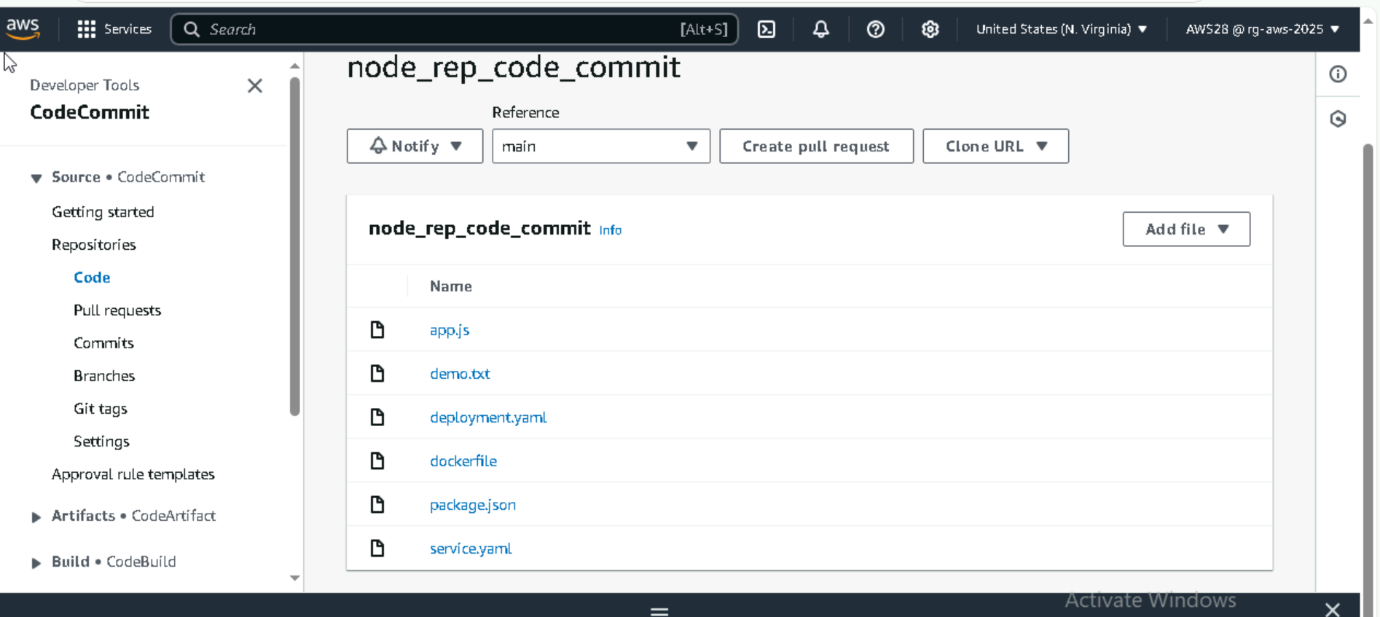
**Set up a aws cicd environment**

Clone repository:

-created a amazon codecomit (we don’t have acces to github)

I have cloned git repository and push into **amzon code commit**

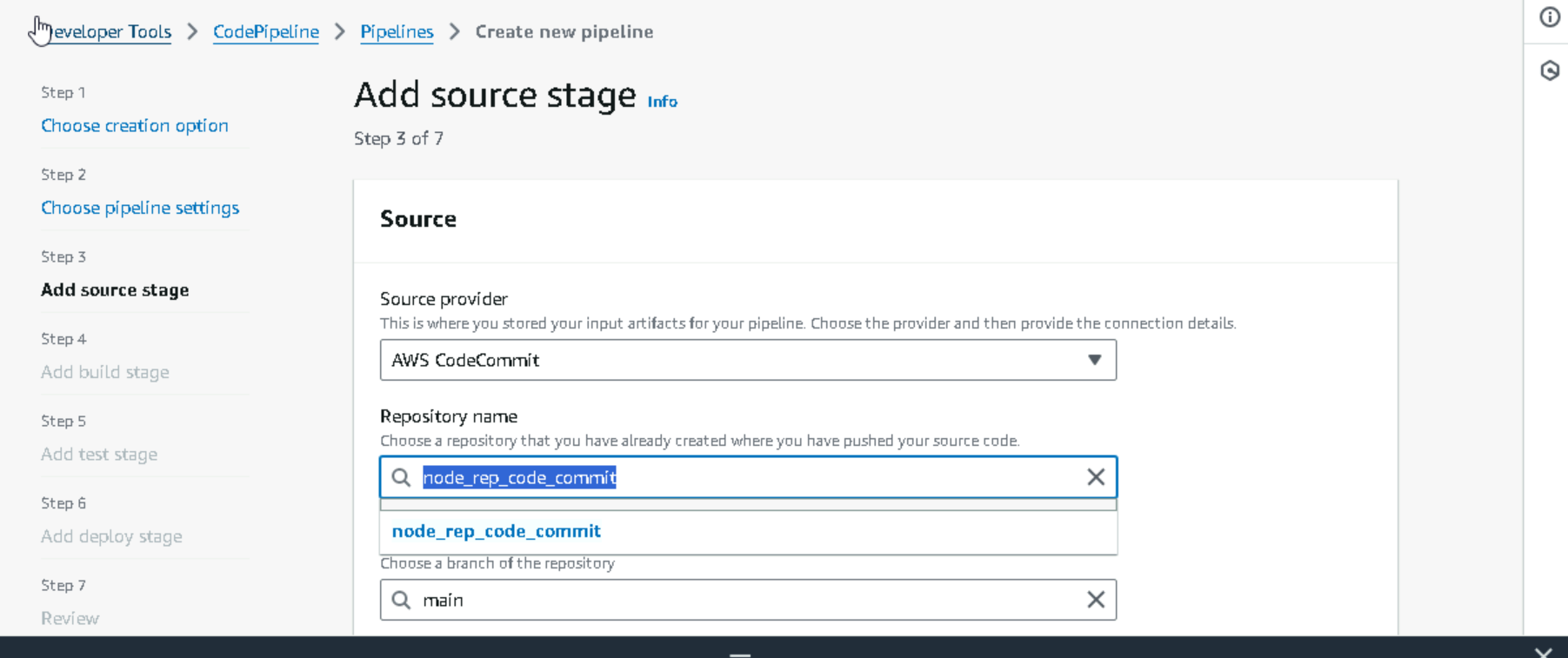
And pushed all files into my code commit repository



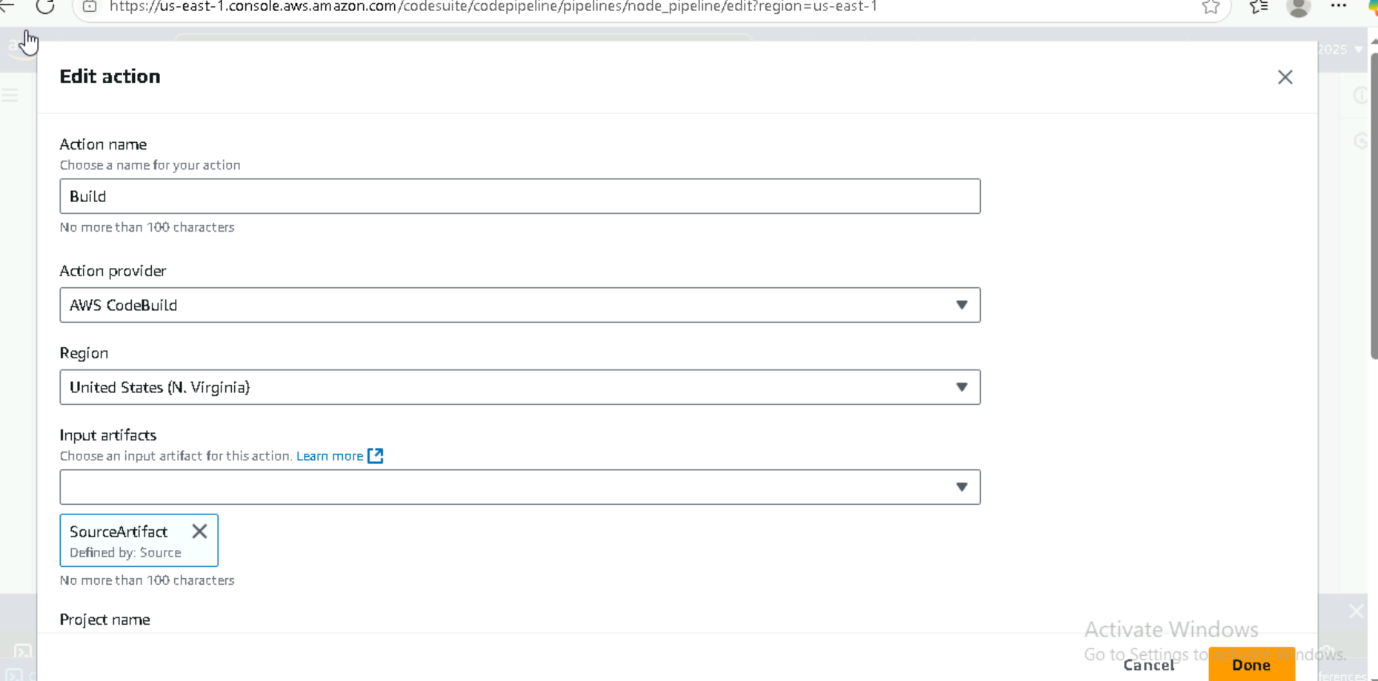
**Service connection:**

Connection establishing for pipeline

I have connect my code build repository to pipeline for source artifacts



2. I have added a build stage which I created code build before



And finally deploy stage ..application deploy into the eks cluster for configured

A screenshot of a computer

AI-generated content may be incorrect.

Now pipeline configuration is done..i have given permissions also

**Configure the ci cd pipeline using aws code pipeline**

1.i have given a connection codebuild for source

1. created a code build

In that I have wrote buildspect yaml file for all steps

A screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.

Then all phases arre seccesfull login,build.pull all phases

Then in code pipeline I have configure a eks cluster to deploy stage

A screenshot of a computer

AI-generated content may be incorrect.

Now all configuration is done

**A screenshot of a computer

AI-generated content may be incorrect.**

Stage1. Build is successA screenshot of a computer

AI-generated content may be incorrect.

Stage2. Successfully pushed the image into ecr is done

A screenshot of a computer

AI-generated content may be incorrect.

Deploy an image to eks cluster is done :

I have accessed aws cluster into cli and successfully createdA screenshot of a computer

AI-generated content may be incorrect.A screenshot of a computer

AI-generated content may be incorrect.

And access using load balancer service load balancer balancer :

Application is deployed successfully

A screenshot of a computer

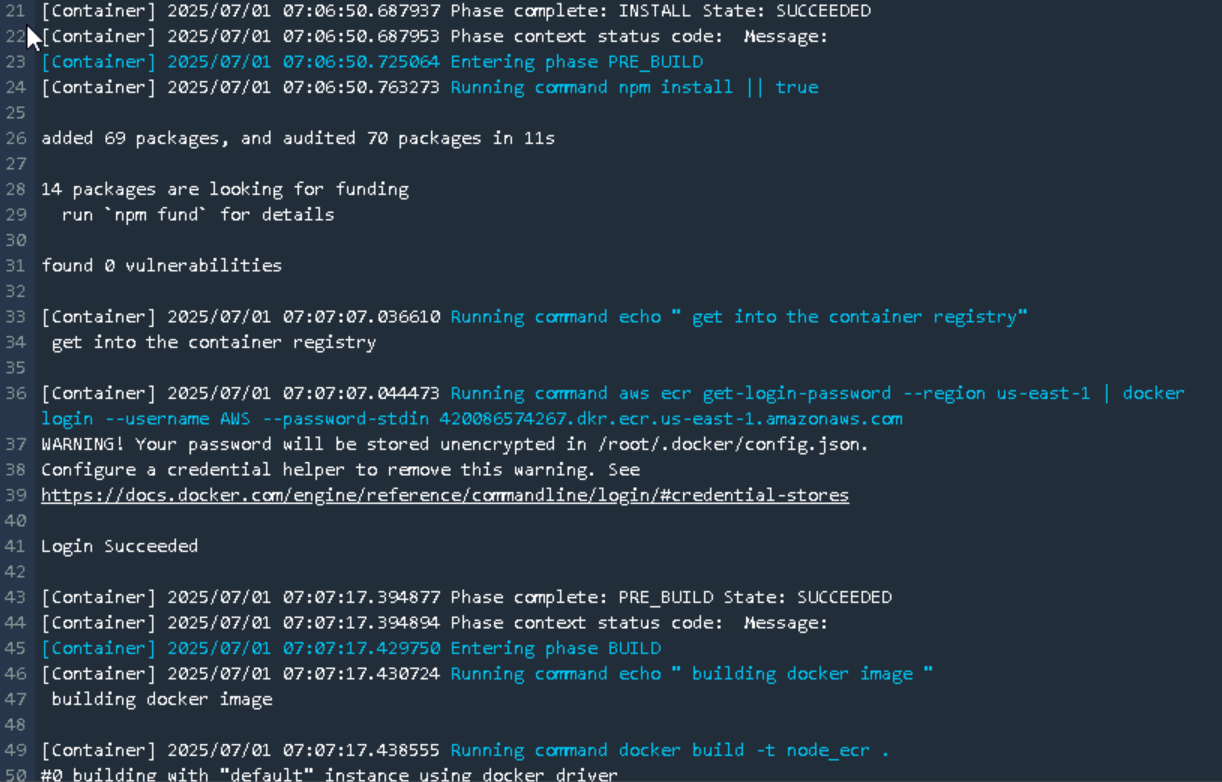
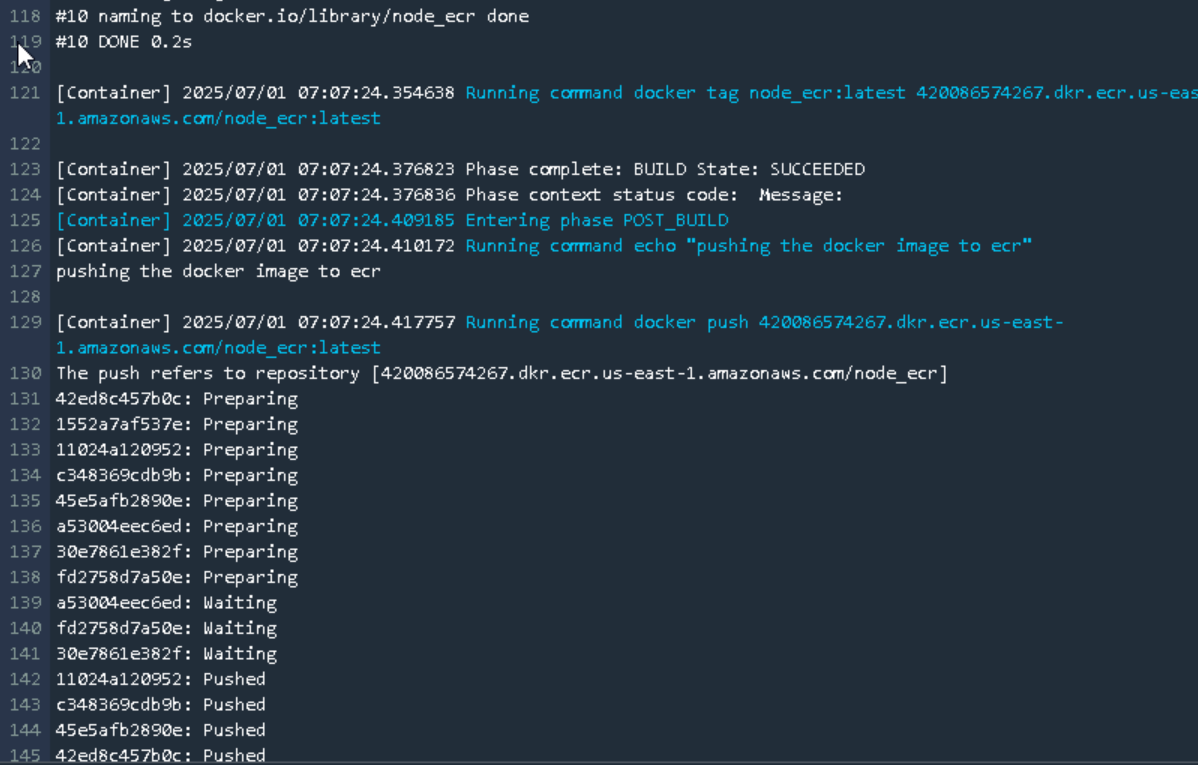
AI-generated content may be incorrect.

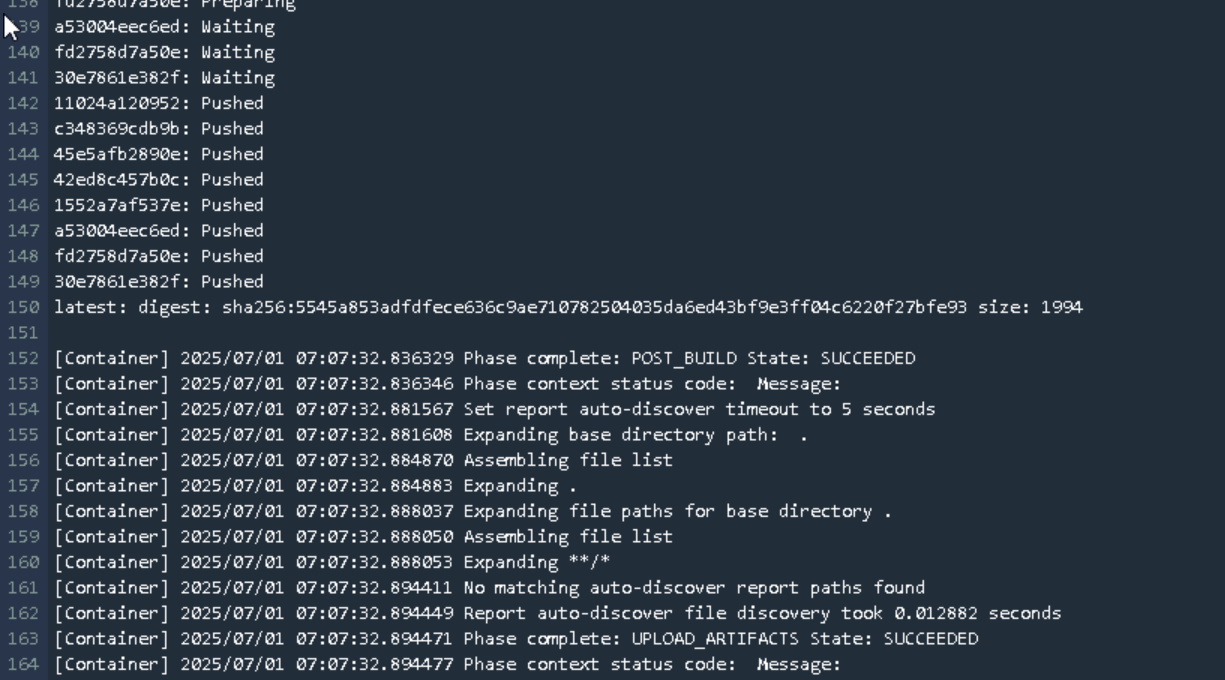
**Run and verifify pipeline:**

**A screenshot of a computer

AI-generated content may be incorrect.**

and evidences is logs: build push and deloy





Deployment.yaml,service.yaml filesA screenshot of a computer program

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.