

winget install Amazon.AWSCLI

if winget not installed

<https://awscli.amazonaws.com/AWSCLIV2-2.0.30.msi>

#check version

aws --version

aws configure

```

C:\Windows\System32>aws --version
aws-cli/2.28.9 Python/3.13.4 Windows/11 exe/AMD64

C:\Windows\System32>aws configure
AWS Access Key ID [None]: AKIA6GBMEESGESHHC7A
AWS Secret Access Key [None]: dDLF8i7Qs2wYFKHDPtAjecX7c9xVbpF+v3GQ/+
Default region name [None]: us-east-1
Default output format [None]:

C:\Windows\System32>
```

aws sts get-caller-identity

```

Administrator: Command Prompt

C:\Windows\System32>aws --version
aws-cli/2.28.9 Python/3.13.4 Windows/11 exe/AMD64

C:\Windows\System32>aws configure
AWS Access Key ID [None]: AKIA6GBMEESGESHHC7A
AWS Secret Access Key [None]: dDLF8i7Qs2wYFKHDPtAjecX7c9xVbpF+v3GQ/+
Default region name [None]: us-east-1
Default output format [None]:

C:\Windows\System32>aws sts get-caller-identity
{
  "UserId": "AKIA6GBMEESGESHHC7A",
  "Account": "979966222222",
  "Arn": "arn:aws:iam::979966222222:user/alexa-alexa"
}

C:\Windows\System32>
```

# Add permission to IAM

### Add permissions

Add user to an existing group or create a new one. Using groups is a best-practice way to manage user's permissions by job functions. [Learn more](#)

#### Permissions options

☐ Add user to group  
Add user to an existing group, or create a new group. We recommend using groups to manage user permissions by job function.

☐ Copy permissions  
Copy all group memberships, attached managed policies, inline policies, and any existing permissions boundaries from an existing user.

☒ Attach policies directly  
Attach a managed policy directly to a user. As a best practice, we recommend attaching policies to a group instead. Then, add the user to the appropriate group.

#### Permissions policies (1/1388)

AmazonEc2Full

Filter by Type

All types

1 match

Policy name	Type	Attached entities
<input checked="" type="checkbox"/> AmazonEC2FullAccess	AWS managed	0

Cancel

Next

#### Permissions policies (1/1387)

EC2Conta

Filter by Type

All types

8 matches

Policy name	Type	Attached entities
<input checked="" type="checkbox"/> AmazonEC2ContainerRegistryFullAccess	AWS managed	1
<input type="checkbox"/> AmazonEC2ContainerRegistryPowerUser	AWS managed	0
<input type="checkbox"/> AmazonEC2ContainerRegistryPullOnly	AWS managed	0
<input type="checkbox"/> AmazonEC2ContainerRegistryReadOnly	AWS managed	1
<input type="checkbox"/> AmazonEC2ContainerServiceAutoscaleRole	AWS managed	0
<input type="checkbox"/> AmazonEC2ContainerServiceECSRole	AWS managed	0
<input type="checkbox"/> AmazonEC2ContainerServiceRole	AWS managed	0
<input type="checkbox"/> AmazonEC2ContainerServiceRole	AWS managed	0

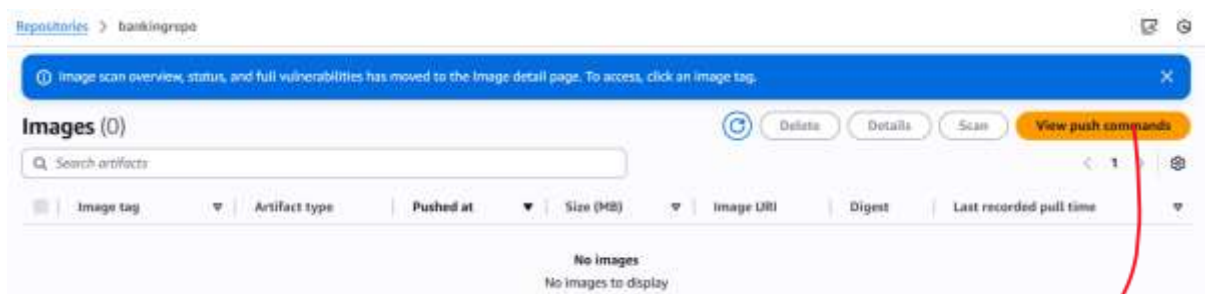
Create container repo

aws ecr create-repository --repository-name bankingrepo

```
Administrator: Command Prompt
C:\Windows\System32>aws ecr create-repository --repository-name bankingrepo
{
  "repository": {
    "repositoryArn": "arn:aws:ecr:us-east-1:975050122500:repository/bankingrepo",
    "registryId": "975050122500",
    "repositoryName": "bankingrepo",
    "repositoryUri": "975050122500.dkr.ecr.us-east-1.amazonaws.com/bankingrepo",
    "createdAt": "2025-08-14T06:46:45.540000+05:30",
    "imageTagMutability": "MUTABLE",
    "imageScanningConfiguration": {
      "scanOnPush": false
    },
    "encryptionConfiguration": {
      "encryptionType": "AES256"
    }
  }
}
```

#get docker login credential

Get Screen shot from



## Push commands for bankingrepo

macOS / Linux

Windows

Make sure that you have the latest version of the AWS TOOLS for PowerShell and Docker installed. For more information, see [Getting Started with Amazon ECR](#).

Use the following steps to authenticate and push an image to your repository. For additional registry authentication methods, including the Amazon ECR credential helper, see [Registry Authentication](#).

1. Retrieve an authentication token and authenticate your Docker client to your registry. Use the AWS TOOLS for PowerShell:

```
(Get-ECRLoginCommand).Password | docker login --username AWS --password-stdin 975050122380.dkr.ecr.us-east-1.amazonaws.com
```

Note: If you receive an error using the AWS TOOLS for PowerShell, make sure that you have the latest version of the AWS TOOLS for PowerShell and Docker installed.

2. Build your Docker image using the following command. For information on building a Docker file from scratch see the instructions [here](#). You can skip this step if your image is already built:

```
docker build -t bankingrepo .
```

3. After the build completes, tag your image so you can push the image to this repository:

```
docker tag bankingrepo:latest 975050122380.dkr.ecr.us-east-1.amazonaws.com/bankingrepo:latest
```

4. Run the following command to push this image to your newly created AWS repository:

```
docker push 975050122380.dkr.ecr.us-east-1.amazonaws.com/bankingrepo:latest
```

aws ecr get-login-password --region us-east-1 | docker login --username AWS --password-stdin 975050122380.dkr.ecr.us-east-1.amazonaws.com

```
Administrator: Command Prompt
C:\Windows\System32>aws ecr get-login-password --region us-east-1 | docker login --username AWS --password-stdin 975050122380.dkr.ecr.us-east-1.amazonaws.com
Login Succeeded
C:\Windows\System32>
```

```
Administrator: Command Prompt
C:\Windows\System32> E:\NITTPAUG2025\customerapi
C:\Windows\System32>
E:\NITTPAUG2025\customerapi>docker build -f dockerfile -t customerapi .
[+] Building 2.8s (14/14) FINISHED
=> [internal] load build definition from dockerfile
=> <= transferring dockerfile: 526B 0.13s
=> [internal] load metadata for docker.io/library/openjdk:11-jdk 0.89s
=> [internal] load metadata for docker.io/jelastic/maven:3.9.5-openjdk-21 4.11s
=> [auth] jelastic/maven:pull token for registry-1.docker.io 4.88s
=> [auth] library/openjdk:pull token for registry-1.docker.io 0.09s
=> [internal] load dockerignore 0.09s
=> <= transferring context: 38 0.09s
=> [stage-1 1/2] FROM docker.io/library/openjdk:21-jdk-headless:af9ae79b2f683b27246153c9ba1c5768ba215b3dcaef7b45c7d894a451ac 0.09s
=> resolve docker.io/library/openjdk:21-jdk-headless:af9ae79b2f683b27246153c9ba1c5768ba215b3dcaef7b45c7d894a451ac 0.09s
=> [internal] load build context 0.09s
=> <= transferring context: 3.43kB 0.09s
=> [build 1/5] FROM docker.io/jelastic/maven:3.9.5-openjdk-21-headless:c43ef75dc17780d8967e24c877372ab441a2f3f6d732c9a18c4d8bf7b2e2d4 0.09s
=> resolve docker.io/jelastic/maven:3.9.5-openjdk-21-headless:c43ef75dc17780d8967e24c877372ab441a2f3f6d732c9a18c4d8bf7b2e2d4 0.09s
=> CACHED [build 2/5] COPY art.art 0.09s
=> CACHED [build 3/5] COPY pom.xml pom.xml 0.09s
=> CACHED [build 4/5] RUN mvn clean install -Dmaven.test.skip=true 0.09s
=> CACHED [stage-1 2/2] COPY --from=build target/customerapi-9.0.1-SNAPSHOT.jar customerapi-9.0.1-SNAPSHOT.jar 0.09s
=> exporting to image 0.11s
=> <= exporting layers 0.09s
=> <= exporting manifest sha256:0688b7fe72a2d4d5b372eadeb18a8e4c32b33a10a8a83313b8a54d782f 0.09s
=> <= exporting config sha256:6cd85a0788d2218156f90211b10d1a8e7f13e140c0e9229f390dc311c1 0.09s
=> <= exporting strataviv manifest sha256:84d9b4b749f9c6d4124ef21ac7b03161817804c0d0a013cfe4096b0def 0.09s
=> <= exporting manifest list sha256:fa3b72ecffa6c002a0194c778287a2016e8bd1a7a323f4d4913c119ec6e845f3 0.09s
=> naming to docker.io/library/customerapi:latest 0.09s
=> <= unpacking to docker.io/library/customerapi:latest 0.85s

View build details: docker-desktop://dashboard/build/desktop-linux/desktop-linux/npd54t1k5sz1l9Fdy85qjz

1 warning found (use docker --debug to expand):
 - 250ArgsRecommended: 250V arguments recommended for ENTRYPOINT to prevent unintended behavior related to OS signals [line 13]
E:\NITTPAUG2025\customerapi>
```

docker tag customerapi:latest ~~975050422380~~.dkr.ecr.us-east-1.amazonaws.com/bankingrepo:customerapiv1

docker push ~~975050422380~~.dkr.ecr.us-east-1.amazonaws.com/bankingrepo:customerapiv1

```
C:\Windows\System32>docker tag customerapi:latest 975050422380.dkr.ecr.us-east-1.amazonaws.com/bankingrepo:customerapiv1
C:\Windows\System32>docker push 975050422380.dkr.ecr.us-east-1.amazonaws.com/bankingrepo:customerapiv1
The push refers to repository [975050422380.dkr.ecr.us-east-1.amazonaws.com/bankingrepo]
74dfd4f18b8f: Pushed
9262579a8e45: Pushed
6d229e84642e: Pushed
8eab4e2287a5: Pushed
7c002e8f6862: Pushed
customerapiv1: digest: sha256:fa3b72ecffa6c002a0194c778287a2016e8bd1a7a323f4d4913c119ec6e845f3 size: 856
C:\Windows\System32>
```

Image scan overview, status, and full vulnerabilities has moved to the image detail page. To access, click an image tag.

Images (3)

Search artifacts

<input type="checkbox"/>	Image tag	Artifact type	Pushed at	Size (MB)	Image URI	Digest	Last recorded pull time
<input type="checkbox"/>	customerapi1	image index	August 14, 2025, 08:17:32 (UTC+05.5)	315.17	<a href="#">Copy URI</a>	sha256:fa3072ecffa6c002...	-
<input type="checkbox"/>	-	image	August 14, 2025, 08:17:31 (UTC+05.5)	0.00	<a href="#">Copy URI</a>	sha256:5add7048a7f8f8c...	-
<input type="checkbox"/>	-	image	August 14, 2025, 08:17:31 (UTC+05.5)	315.17	<a href="#">Copy URI</a>	sha256:d688baf72a2d4...	August 14, 2025, 08:17:31 (UTC+05.5)

OIDCPolicy

{

"Version": "2012-10-17",

"Statement": [

{

"Effect": "Allow",

"Action": [

"iam:GetOpenIDConnectProvider",

"iam:CreateOpenIDConnectProvider",

"iam>DeleteOpenIDConnectProvider",

"iam:UpdateOpenIDConnectProviderThumbprint",

"iam:TagOpenIDConnectProvider",

"iam:CreatePolicy",

"iam:GetPolicy",

"iam:AttachRolePolicy",

"iam:CreateRole",

"iam:PassRole",

"iam:TagRole",

"iam:GetRole"

],

"Resource": "\*"

```

    }
  ]
}

```

## Create an EKS cluster (with eksctl)

**Configure cluster**

**Configuration options - new**  
Choose how you would like to configure the cluster:

- ☒ **Quick configuration (with EKS Auto Mode) - new**  
Quickly create a cluster with production-grade default settings. This configuration uses EKS Auto Mode to automate infrastructure tasks like creating nodes and provisioning storage.
- ☐ **Custom configuration**  
To change default settings prior to creation, choose this option. This configuration gives the option to use EKS Auto Mode and customize the cluster's configuration.

**Cluster configuration**

**Name**  
Use the auto-generated name or enter a unique name for this cluster. This property cannot be changed after the cluster is created.  
unique-cluster-eksctl

The cluster name should begin with letter or digit and use any of the following characters: the set of Unicode letters, digits, hyphens, and underscores. Maximum length of 100.

**Kubernetes version**  
Select Kubernetes version for this cluster.  
1.33

## EKS cluster Policy

```

{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "AmazonEKSClusterPolicy",
      "Effect": "Allow",
      "Action": [
        "autoscaling:DescribeAutoScalingGroups",

```

"autoscaling:UpdateAutoScalingGroup",  
"ec2:AttachVolume",  
"ec2:AuthorizeSecurityGroupIngress",  
"ec2:CreateRoute",  
"ec2:CreateSecurityGroup",  
"ec2:CreateTags",  
"ec2:CreateVolume",  
"ec2>DeleteRoute",  
"ec2>DeleteSecurityGroup",  
"ec2>DeleteVolume",  
"ec2:DescribeInstances",  
"ec2:DescribeRouteTables",  
"ec2:DescribeSecurityGroups",  
"ec2:DescribeSubnets",  
"ec2:DescribeVolumes",  
"ec2:DescribeVolumesModifications",  
"ec2:DescribeVpcs",  
"ec2:DescribeDhcpOptions",  
"ec2:DescribeNetworkInterfaces",  
"ec2:DescribeAvailabilityZones",  
"ec2:DetachVolume",  
"ec2:ModifyInstanceAttribute",  
"ec2:ModifyVolume",  
"ec2:RevokeSecurityGroupIngress",  
"ec2:DescribeAccountAttributes",  
"ec2:DescribeAddresses",  
"ec2:DescribeInternetGateways",  
"ec2:DescribeInstanceTopology",

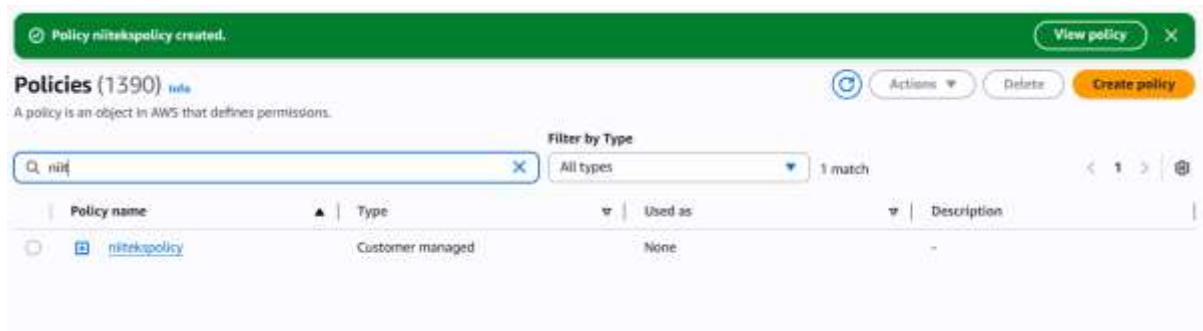
"elasticloadbalancing:AddTags",  
"elasticloadbalancing:ApplySecurityGroupsToLoadBalancer",  
"elasticloadbalancing:AttachLoadBalancerToSubnets",  
"elasticloadbalancing:ConfigureHealthCheck",  
"elasticloadbalancing:CreateListener",  
"elasticloadbalancing:CreateLoadBalancer",  
"elasticloadbalancing:CreateLoadBalancerListeners",  
"elasticloadbalancing:CreateLoadBalancerPolicy",  
"elasticloadbalancing:CreateTargetGroup",  
"elasticloadbalancing>DeleteListener",  
"elasticloadbalancing>DeleteLoadBalancer",  
"elasticloadbalancing>DeleteLoadBalancerListeners",  
"elasticloadbalancing>DeleteTargetGroup",  
"elasticloadbalancing:DeregisterInstancesFromLoadBalancer",  
"elasticloadbalancing:DeregisterTargets",  
"elasticloadbalancing:DescribeListeners",  
"elasticloadbalancing:DescribeLoadBalancerAttributes",  
"elasticloadbalancing:DescribeLoadBalancerPolicies",  
"elasticloadbalancing:DescribeLoadBalancers",  
"elasticloadbalancing:DescribeTargetGroupAttributes",  
"elasticloadbalancing:DescribeTargetGroups",  
"elasticloadbalancing:DescribeTargetHealth",  
"elasticloadbalancing:DetachLoadBalancerFromSubnets",  
"elasticloadbalancing:ModifyListener",  
"elasticloadbalancing:ModifyLoadBalancerAttributes",  
"elasticloadbalancing:ModifyTargetGroup",  
"elasticloadbalancing:ModifyTargetGroupAttributes",  
"elasticloadbalancing:RegisterInstancesWithLoadBalancer",

```
    "elasticloadbalancing:RegisterTargets",
    "elasticloadbalancing:SetLoadBalancerPoliciesForBackendServer",
    "elasticloadbalancing:SetLoadBalancerPoliciesOfListener",
    "kms:DescribeKey"
  ],
  "Resource": "*"
},
{
  "Sid": "AmazonEKSClusterPolicySLRCreate",
  "Effect": "Allow",
  "Action": "iam:CreateServiceLinkedRole",
  "Resource": "*",
  "Condition": {
    "StringEquals": {
      "iam:AWSServiceName": "elasticloadbalancing.amazonaws.com"
    }
  }
},
{
  "Sid": "AmazonEKSClusterPolicyENIDelete",
  "Effect": "Allow",
  "Action": "ec2:DeleteNetworkInterface",
  "Resource": "*",
  "Condition": {
    "StringEquals": {
      "ec2:ResourceTag/eks:eni:owner": "amazon-vpc-cni"
    }
  }
}
```

```

    }
  ]
}

```



Secret Manager read write policy

```

{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "BasePermissions",
      "Effect": "Allow",
      "Action": [
        "secretsmanager:*",
        "cloudformation:CreateChangeSet",
        "cloudformation:DescribeChangeSet",
        "cloudformation:DescribeStackResource",
        "cloudformation:DescribeStacks",
        "cloudformation:ExecuteChangeSet",
        "docdb-elastic:GetCluster",
        "docdb-elastic:ListClusters",
        "ec2:DescribeSecurityGroups",
        "ec2:DescribeSubnets",
        "ec2:DescribeVpcs",

```

```

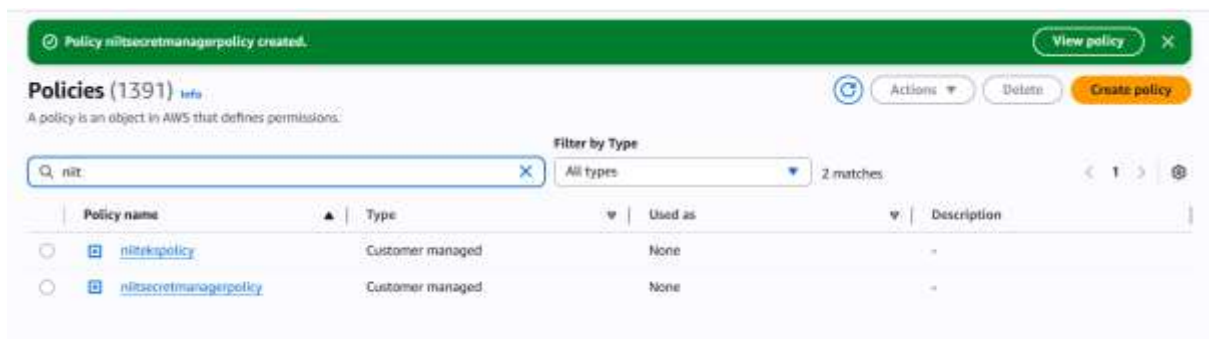
        "kms:DescribeKey",
        "kms:ListAliases",
        "kms:ListKeys",
        "lambda:ListFunctions",
        "rds:DescribeDBClusters",
        "rds:DescribeDBInstances",
        "redshift:DescribeClusters",
        "redshift-serverless:ListWorkgroups",
        "redshift-serverless:GetNamespace",
        "tag:GetResources"
    ],
    "Resource": "*"
},
{
    "Sid": "LambdaPermissions",
    "Effect": "Allow",
    "Action": [
        "lambda:AddPermission",
        "lambda:CreateFunction",
        "lambda:GetFunction",
        "lambda:InvokeFunction",
        "lambda:UpdateFunctionConfiguration"
    ],
    "Resource": "arn:aws:lambda:*:*:function:SecretsManager*"
},
{
    "Sid": "SARPermissions",
    "Effect": "Allow",

```

```

    "Action": [
        "serverlessrepo:CreateCloudFormationChangeSet",
        "serverlessrepo:GetApplication"
    ],
    "Resource": "arn:aws:serverlessrepo:*:*:applications/SecretsManager*"
},
{
    "Sid": "S3Permissions",
    "Effect": "Allow",
    "Action": [
        "s3:GetObject"
    ],
    "Resource": [
        "arn:aws:s3:::awsserverlessrepo-changesets*",
        "arn:aws:s3:::secrets-manager-rotation-apps-*/*"
    ]
}
]
}

```



Noderole Policy (Ec2 usecase)

**Permissions policies (5)** [info](#)

You can attach up to 10 managed policies.

Filter by Type

Search

All types

<input type="checkbox"/>	Policy name	Type	Attached entities
<input type="checkbox"/>	<a href="#">AmazonEC2ContainerRegistryFullAccess</a>	AWS managed	2
<input type="checkbox"/>	<a href="#">AmazonEC2ContainerRegistryReadOnly</a>	AWS managed	1
<input type="checkbox"/>	<a href="#">AmazonEKS_CNI_Policy</a>	AWS managed	1
<input type="checkbox"/>	<a href="#">AmazonEKSWorkerNodePolicy</a>	AWS managed	1
<input type="checkbox"/>	<a href="#">SecretsManagerReadWrite</a>	AWS managed	2

Create role

**Role niitnodepolicy created.** [View role](#)

**niitnodepolicy** [info](#)

Allows EC2 instances to call AWS services on your behalf.

[Delete](#)

**Summary** [Edit](#)

<b>Creation date</b> August 14, 2023, 08:46 UTC+05:30	<b>ARN</b> <a href="#">arn:aws:iam::975050122390:role/niitnodepolicy</a>	<b>Instance profile ARN</b> <a href="#">arn:aws:iam::975050122390:instance-profile/niitnodepolicy</a>
<b>Last activity</b> -	<b>Maximum session duration</b> 1 hour	

[Permissions](#) [Trust relationships](#) [Tags](#) [Last Accessed](#) [Revoke sessions](#)

**Permissions policies (4)** [info](#)

You can attach up to 10 managed policies.

Filter by Type

Search

All types

<input type="checkbox"/>	Policy name	Type	Attached entities
<input type="checkbox"/>	<a href="#">AmazonEC2ContainerRegistryFullAccess</a>	AWS managed	2
<input type="checkbox"/>	<a href="#">AmazonEKS_CNI_Policy</a>	AWS managed	2
<input type="checkbox"/>	<a href="#">AmazonEKSWorkerNodePolicy</a>	AWS managed	2
<input type="checkbox"/>	<a href="#">SecretsManagerReadWrite</a>	AWS managed	2

Niit cluster admin role (EKS usecase)

**Add permissions** [info](#)

**Permissions policies (2/1076)** [info](#)

Choose one or more policies to attach to your new role.

Filter by Type

Search: niit 2 matches

<input checked="" type="checkbox"/>	Policy name	Type	Description
<input checked="" type="checkbox"/>	<a href="#">niitnodepolicy</a>	Customer managed	-
<input checked="" type="checkbox"/>	<a href="#">niitnodepolicy</a>	Customer managed	-

**Roles (21)**

niitnode

Role name	Trusted entities	Last activity
niitnode	AWS Service: ec2	
niitnodepolicy	AWS Service: ec2	

**niitnode**

August 14, 2025, 09:07 (UTC+05:30)

Last activity: 7 minutes ago

Maximum session duration: 1 hour

**Permissions policies (4)**

You can attach up to 10 managed policies.

Filter by Type: All types

Policy name	Type	Attached entities
AmazonEC2ContainerRegistryFullAccess	AWS managed	3
AmazonEKS_CNI_Policy	AWS managed	2
AmazonEKSEKSWorkerNodePolicy	AWS managed	2
SecretsManagerReadWrite	AWS managed	5

Niit cluster admin role

Add

### Cluster role missing recommended managed policies

The cluster role must have the following managed policies or equivalent permissions to use EKS Auto Mode:

- AmazonEKSBLOCKStoragePolicy
- AmazonEKSCOMPUTEPolicy
- AmazonEKSLoadBalancingPolicy
- AmazonEKSNetworkingPolicy

niitclusteradmin

Deletes

Allows the cluster administrator control plane to manage AWS resources on your behalf.

Summary

Creation date

August 14, 2025, 06:53 (UTC+05:30)

Last activity

-

AWS

arn:aws:iam::975090722880:role/niitclusteradmin

Maximum session duration

1 hour

Edit

Permissions
Trust relationships
Tags
Last Accessed
Revoke sessions

Permissions policies (5)

You can attach up to 10 managed policies.

Filter by Type

All types

Search

Policy name

Type

Attached entities

	<a href="#">AmazonEKSNetworkStoragePolicy</a>	AWS managed	1
	<a href="#">AmazonEKSClusterPolicy</a>	AWS managed	1
	<a href="#">AmazonEKSCorePolicy</a>	AWS managed	1
	<a href="#">AmazonEKSElasticFileSystemPolicy</a>	AWS managed	1
	<a href="#">AmazonEKSNetworkPolicy</a>	AWS managed	1
	<a href="#">AmazonEKSStoragePolicy</a>	AWS managed	1

Edit Trust policy of cluster admin

IAM > Roles > niitclusteradmin > Edit trust policy

## Edit trust policy

```

1 {
2   "Version": "2012-10-17",
3   "Statement": [{
4     "Effect": "Allow",
5     "Principal": { "Service": "eks.amazonaws.com" },
6     "Action": ["sts:AssumeRole", "sts:TagSession"]
7   }]
8 }
9 |

```

Amazon EKS, Kubernetes Service > Create EKS cluster

### Cluster configuration

**Name**  
Use the auto-generated name or enter a unique name for this cluster. This property cannot be changed after the cluster is created.  
bankingcluster

The cluster name should begin with letter or digit, and can have any of the following characters: the set of Unicode letters, digits, hyphens and underscores. Maximum length of 100.

**Kubernetes version** [info](#)  
Select Kubernetes version for this cluster.  
1.31

**Cluster IAM role** [info](#)  
Select the Cluster IAM role to allow the Kubernetes control plane to manage AWS resources on your behalf. This cannot be changed after the cluster is created. To create a new custom role, follow the instructions in the [Amazon EKS User Guide](#).  
eksctl-cluster-admin

**Node IAM role** [info](#)  
Nodes need an EC2 instance profile role to launch and register with a cluster. To create a new custom role, follow the instructions in the [Amazon EKS User Guide](#).  
eksctl-node-admin

**VPC** [info  
Select a VPC to use for your EKS cluster resources.  
vpc-0f2b1e500050fa15a | Default](#)

**Subnets** [info  
Choose the subnets in your VPC where the control plane may place pods, network interfaces \(ENIs\) to facilitate communication with your cluster. To create a new subnet, go to the corresponding page in the VPC console.  
Select subnets](#)

subnet-0ba7e56543400cb5 | subnet-0320556c783f01090 | subnet-0d18a660d28446c6b  
subnet-063696de479ac1d9b | subnet-098fc92182d220f0

bankingcluster 🔄 Delete cluster Monitor cluster

🔔 The Amazon EKS console does not show Kubernetes resources until the cluster has an ACTIVE or UPDATING state. Please try again in a few minutes.

### Cluster info [info](#)

<b>Status</b> 🔄 Creating	<b>Kubernetes version</b> <a href="#">info</a> 1.31	<b>Support period</b> ⚠️ Standard support until November 26, 2025	<b>Provider</b> EKS
<b>Cluster health</b> 🟢 0	<b>Upgrade insights</b> 🟢 0	<b>Node health issues</b> 🟢 0	

**Overview** | Resources | Compute | Networking | Add-ons | Access | Observability | Update history | Tags

### Details

<b>API server endpoint</b> https://2597c20a5981ea80e75902383c5a0f0f.gr7.us-ew-1-eks.amazonaws.com	<b>OpenID Connect provider URL</b> -	<b>Created</b> 🕒 a few seconds ago
<b>Certificate authority</b> 	<b>Cluster IAM role ARN</b> arn:aws:iam::975050122380:role/eksctl-cluster-admin	<b>Cluster ARN</b> arn:aws:eks:us-east-1:975050122380:cluster/bankingcluster

Or

#eks tool

curl --silent --location

"https://github.com/weaveworks/eksctl/releases/latest/download/eksctl\_\$(uname -s)\_amd64.tar.gz" | tar xz -C /tmp

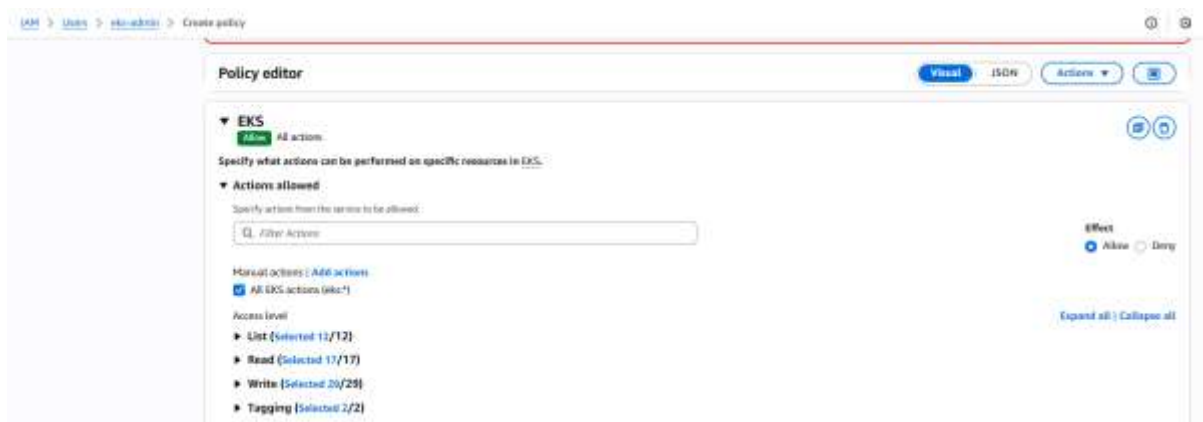
sudo mv /tmp/eksctl /usr/local/bin

eksctl version

#create kube cluster using us-east-2

eksctl create cluster --name my-cluster --region us-east-2 --nodegroup-name  
standard-workers --node-type t3.medium --nodes 2 --nodes-min 1 --nodes-max 3 --  
managed

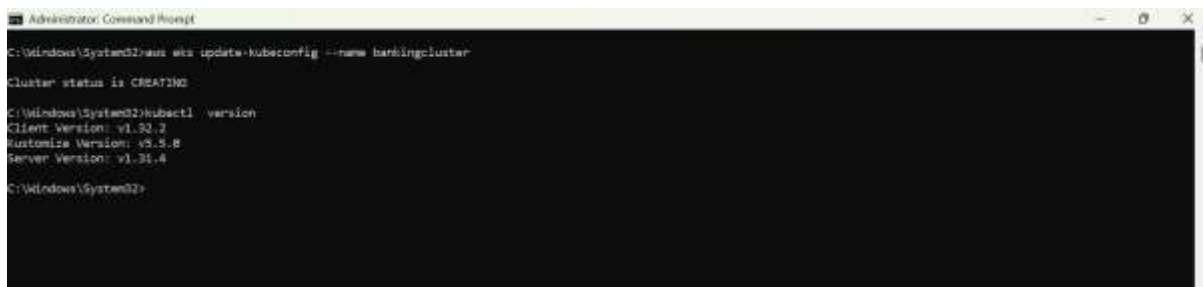
Add EKS permission to eksadmin



#configure aws kube in local

Use the AWS CLI update-kubeconfig command to create or update your kubeconfig for your cluster.

aws eks update-kubeconfig --name bankingcluster



aws eks update-kubeconfig --name bankingcluster --region us-east-1

```
Administrator: Command Prompt
An error occurred (ResourceNotFoundException) when calling the DescribeCluster operation: No cluster found for name: my-cluster.
C:\Windows\System32>aws eks update-kubeconfig --name bankingcluster --region us-east-1
Cluster status is CREATING
C:\Windows\System32>
```

#check status

aws eks describe-cluster --name bankingcluster --region us-east-1 --query  
"cluster.status" --output text

update config file

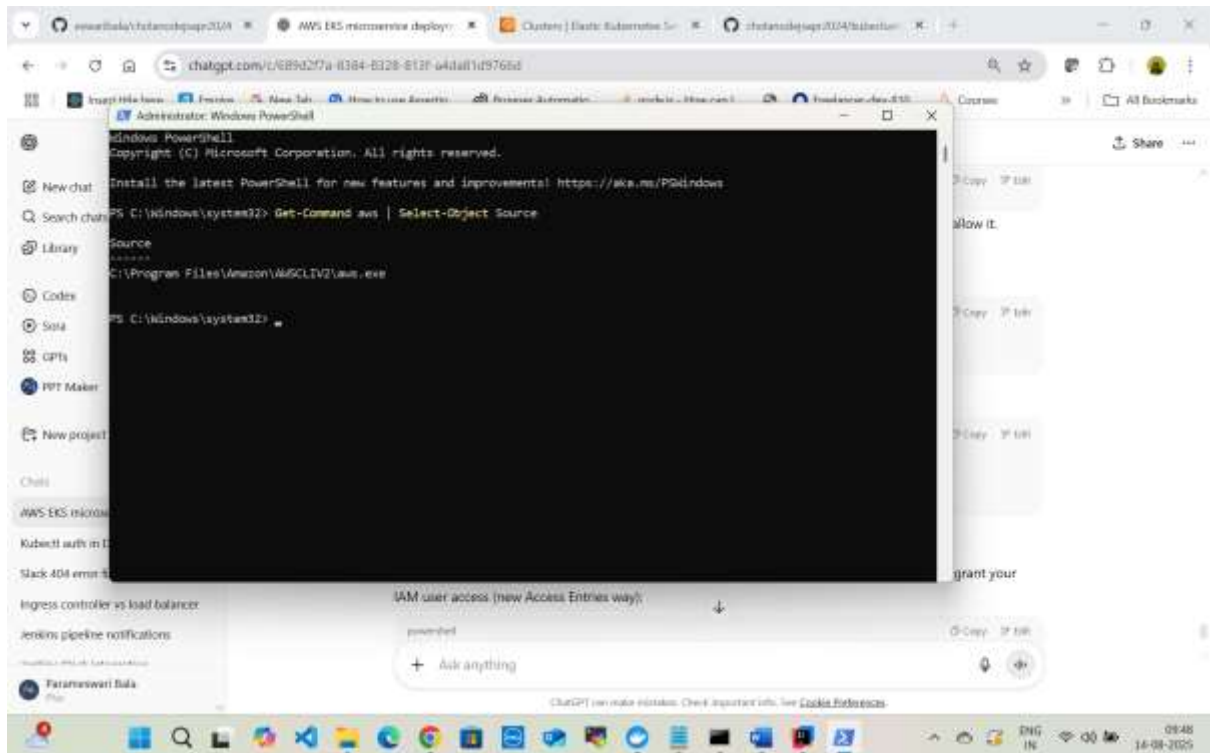
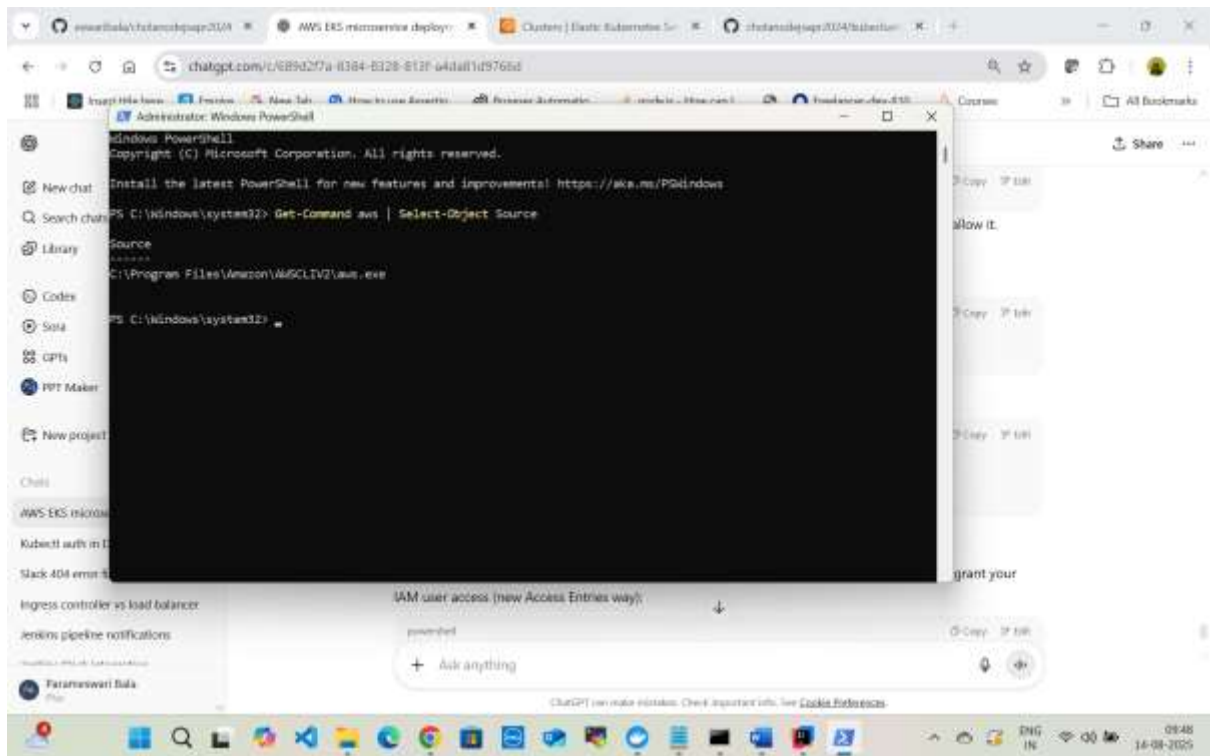
aws eks update-kubeconfig --name bankingcluster --region us-east-1 --kubeconfig  
"C:\Users\param\.kube\config"

kubectl config get-contexts

```
Administrator: Command Prompt
C:\Windows\System32>aws eks get-token --cluster-name bankingcluster --region us-east-1 > $null
C:\Windows\System32>kubectl config get-contexts
CURRENT  Name                                NAMESPACE                                CLUSTER                                AUTHINFO
*         arn:aws:eks:us-east-1:975050122380:cluster/bankingcluster  arn:aws:eks:us-east-1:975050122380:cluster/bankingcluster  arn:aws:eks:us-east-1:975050122380:cluster/bankingcluster
docker-desktop
kind-nit-kube
kind-nit-kube
C:\Windows\System32>
```

In powershell

Get-Command aws | Select-Object Source



## Add access policy to eks admin



```
Administrator: Command Prompt

2 Dirs(s) 774,198,094,876 bytes free

E:\Docker\postgresdeployment\kubectl apply -f postgres-pv.yaml
persistentvolume/postgres-pv-volume created
persistentvolumeclaim/postgres-pv-claim created

E:\Docker\postgresdeployment\kubectl apply -f postgres-deployment.yaml
service/postgres created
deployment.apps/postgres created

E:\Docker\postgresdeployment\kubectl get pods
NAME                READY   STATUS    RESTARTS   AGE
postgres-c9f9c89c6-mkrip  0/1     Pending   0           18s

E:\Docker\postgresdeployment\kubectl get pv
NAME                CAPACITY   ACCESS MODES   RECLAIM POLICY   STATUS   CLAIM                STORAGECLASS   VOLUMEATTRIBUTESCLASS   REASON   AGE
postgres-pv-volume  10Gi       RWO            Retain           Bound    default/postgres-pv-claim  manual         <unset>                37s

E:\Docker\postgresdeployment\kubectl get pvc
NAME                STATUS     VOLUME         CAPACITY   ACCESS MODES   STORAGECLASS   VOLUMEATTRIBUTESCLASS   AGE
postgres-pv-claim   Bound      postgres-pv-volume  10Gi       RWO            manual         <unset>                41s

E:\Docker\postgresdeployment\kubectl get pods -w
NAME                READY   STATUS    RESTARTS   AGE
postgres-c9f9c89c6-mkrip  0/1     Pending   0           33s
postgres-c9f9c89c6-mkrip  0/1     Pending   0           42s
postgres-c9f9c89c6-mkrip  0/1     ContainerCreating  0           42s
postgres-c9f9c89c6-mkrip  1/1     Running   0           47s

E:\Docker\postgresdeployment>
```

```
Administrator: Command Prompt

customer-service    LoadBalancer    10.100.214.126   <pending>    7874:38197/TCP    21s
kubernetes          ClusterIP         10.100.0.1       <none>       443/TCP           77s
postgres            ClusterIP         None             <none>       5432/TCP          9s9s

E:\Docker\postgresdeployment\kubectl get svc
NAME                TYPE          CLUSTER-IP      EXTERNAL-IP    PORT(S)          AGE
customer-service    LoadBalancer 10.100.214.126   <pending>      7874:38197/TCP    71s
kubernetes          ClusterIP     10.100.0.1       <none>         443/TCP           76s
postgres            ClusterIP     None             <none>         5432/TCP          9s9s

E:\Docker\postgresdeployment\kubectl get svc
NAME                TYPE          CLUSTER-IP      EXTERNAL-IP    PORT(S)          AGE
customer-service    LoadBalancer 10.100.214.126   <pending>      7874:38197/TCP    186s
kubernetes          ClusterIP     10.100.0.1       <none>         443/TCP           79s
postgres            ClusterIP     None             <none>         5432/TCP          9s9s

E:\Docker\postgresdeployment\kubectl delete deploy customerapi
deployment.apps "customerapi" deleted

E:\Docker\postgresdeployment\kubectl get pods
NAME                READY   STATUS    RESTARTS   AGE
postgres-c9f9c89c6-mkrip  1/1     Running   0           9s36s

E:\Docker\postgresdeployment\kubectl apply -f deployment-v20.yaml
deployment.apps/customerapi created
service/customer-service configured

E:\Docker\postgresdeployment\kubectl get pods
NAME                READY   STATUS    RESTARTS   AGE
customerapi-64885c5f5b-xk8ds  1/1     Running   0           4s
postgres-c9f9c89c6-mkrip      1/1     Running   0           10s

E:\Docker\postgresdeployment\kubectl get svc
NAME                TYPE          CLUSTER-IP      EXTERNAL-IP    PORT(S)          AGE
customer-service    NodePort       10.100.214.126   <none>         7874:38197/TCP    8s2s
kubernetes          ClusterIP     10.100.0.1       <none>         443/TCP           82s
postgres            ClusterIP     None             <none>         5432/TCP          10s

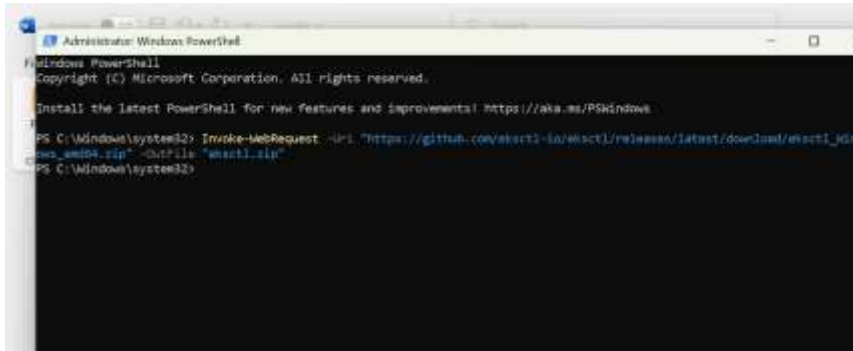
E:\Docker\postgresdeployment>
```

Create load balancer controller

Create EKS Tool

Open powershell

Invoke-WebRequest -Uri "https://github.com/eksctl-io/eksctl/releases/latest/download/eksctl\_Windows\_amd64.zip" -OutFile "eksctl.zip"



```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Windows\system32> Invoke-WebRequest -Uri "https://github.com/eksctl-io/eksctl/releases/latest/download/eksctl_Windows_amd64.zip" -OutFile "eksctl.zip"
PS C:\Windows\system32>
```

Expand-Archive -Path "eksctl.zip" -DestinationPath "C:\eksctl"



```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

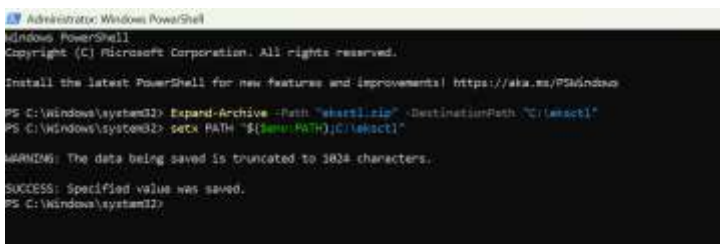
PS C:\Windows\system32> Expand-Archive -Path "eksctl.zip" -DestinationPath "C:\eksctl"
PS C:\Windows\system32>
```

## Add eksctl to your PATH

In PowerShell (run as Administrator):

setx PATH "\$(\$env:PATH);C:\eksctl"

Close and reopen PowerShell so the PATH refreshes.



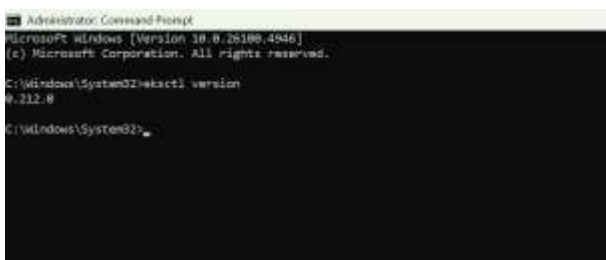
```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Windows\system32> Expand-Archive -Path "eksctl.zip" -DestinationPath "C:\eksctl"
PS C:\Windows\system32> setx PATH "$($env:PATH);C:\eksctl"

WARNING: The data being saved is truncated to 3834 characters.
SUCCESS: Specified value was saved.
PS C:\Windows\system32>
```

Set env variable for eksctl.exe



```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.26100.4946]
(c) Microsoft Corporation. All rights reserved.

C:\Windows\System32> eksctl version
v.212.0

C:\Windows\System32>
```

Go to user eksadmin add policy json

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "iam:GetOpenIDConnectProvider",
        "iam:CreateOpenIDConnectProvider",
        "iam:DeleteOpenIDConnectProvider",
        "iam:UpdateOpenIDConnectProviderThumbprint",
        "iam:TagOpenIDConnectProvider",
        "iam:CreatePolicy",
        "iam:GetPolicy",
        "iam:AttachRolePolicy",
        "iam:CreateRole",
        "iam:PassRole",
        "iam:TagRole",
        "iam:GetRole"
      ],
      "Resource": "*"
    }
  ]
}
```

Policy oidcpolicyv1 created.

Search Filter by Type All types

Policy name	Type	Attached via
AmazonEC2ContainerRegistryFullAccess	AWS managed	Directly
AmazonEC2FullAccess	AWS managed	Directly
eksctl	Customer inline	Inline
IAMUserChangePassword	AWS managed	Directly
oidcpolicyv1	Customer inline	Inline

eksctl utils associate-iam-oidc-provider --cluster bankingcluster --region us-east-1 --approve

```
Administrator: Command Prompt
amazonaws.com/1672397C2A5981E488E759D2383C548F8F because no identity-based policy allows the iam:GetOpenIDConnectProvider action
C:\Windows\System32>eksctl utils associate-iam-oidc-provider --cluster bankingcluster --region us-east-1 --approve
2025-08-14 11:09:48 [i] will create IAM Open ID Connect provider for cluster "bankingcluster" in "us-east-1"
2025-08-14 11:09:49 [i] created IAM Open ID Connect provider for cluster "bankingcluster" in "us-east-1"
C:\Windows\System32>
```

Create IAM policy

curl -o iam-policy.json [https://raw.githubusercontent.com/kubernetes-sigs/aws-load-balancer-controller/main/docs/install/iam\\_policy.json](https://raw.githubusercontent.com/kubernetes-sigs/aws-load-balancer-controller/main/docs/install/iam_policy.json)

aws iam create-policy --policy-name AWSLoadBalancerControllerIAMPolicy --policy-document <file://iam-policy.json>

```
Administrator: Command Prompt
C:\Windows\System32>aws iam create-policy --policy-name AWSLoadBalancerControllerIAMPolicy --policy-document file:///iam-policy.json
{
  "Policy": {
    "PolicyName": "AWSLoadBalancerControllerIAMPolicy",
    "PolicyId": "ANPA6Q9HET5GK7PTXG5BM",
    "Arn": "arn:aws:iam::979858112388:policy/AWSLoadBalancerControllerIAMPolicy",
    "Path": "/",
    "DefaultVersionId": "v1",
    "AttachmentCount": 0,
    "PermissionsBoundaryUsageCount": 0,
    "IsAttachable": true,
    "CreateDate": "2025-08-14T05:39:28+00:00",
    "UpdateDate": "2025-08-14T05:39:28+00:00"
  }
}
```

## Permissions policies (6)

Permissions are defined by policies attached to the user directly or through groups.

Filter by Type: All types

<input type="checkbox"/>	Policy name	Type	Attached via
<input type="checkbox"/>	<a href="#">AmazonEC2ContainerRegistryFullAccess</a>	AWS managed	Directly
<input type="checkbox"/>	<a href="#">AmazonEC2FullAccess</a>	AWS managed	Directly
<input type="checkbox"/>	<a href="#">AWSCloudFormationFullAccess</a>	AWS managed	Directly
<input type="checkbox"/>	<a href="#">ekspolicy</a>	Customer inline	Inline
<input type="checkbox"/>	<a href="#">IAMUserChangePassword</a>	AWS managed	Directly
<input type="checkbox"/>	<a href="#">oidcpolicyv1</a>	Customer inline	Inline

2 policies added to eks-admin

Filter by Type: All types

1

<input type="checkbox"/>	Policy name	Type	Attached via
<input type="checkbox"/>	<a href="#">AmazonEC2ContainerRegistryFullAccess</a>	AWS managed	Directly
<input type="checkbox"/>	<a href="#">AmazonEC2FullAccess</a>	AWS managed	Directly
<input type="checkbox"/>	<a href="#">AmazonEKSLoadBalancingPolicy</a>	AWS managed	Directly
<input type="checkbox"/>	<a href="#">AWSCloudFormationFullAccess</a>	AWS managed	Directly
<input type="checkbox"/>	<a href="#">ekspolicy</a>	Customer inline	Inline
<input type="checkbox"/>	<a href="#">ElasticLoadBalancingFullAccess</a>	AWS managed	Directly
<input type="checkbox"/>	<a href="#">IAMUserChangePassword</a>	AWS managed	Directly
<input type="checkbox"/>	<a href="#">oidcpolicyv1</a>	Customer inline	Inline

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "iam:CreateServiceLinkedRole"
      ],
      "Resource": "*",
      "Condition": {
        "StringEquals": {
          "iam:AWSServiceName": "elasticloadbalancing.amazonaws.com"
        }
      }
    },
    {
      "Effect": "Allow",
      "Action": [
        "ec2:DescribeAccountAttributes",
        "ec2:DescribeAddresses",
        "ec2:DescribeAvailabilityZones",
        "ec2:DescribeInternetGateways",
        "ec2:DescribeVpcs",
        "ec2:DescribeVpcPeeringConnections",
        "ec2:DescribeSubnets",
        "ec2:DescribeSecurityGroups",
```

```
"ec2:DescribeInstances",
"ec2:DescribeNetworkInterfaces",
"ec2:DescribeTags",
"ec2:GetCoipPoolUsage",
"ec2:DescribeCoipPools",
"ec2:GetSecurityGroupsForVpc",
"ec2:DescribeIpamPools",
"ec2:DescribeRouteTables",
"elasticloadbalancing:DescribeLoadBalancers",
"elasticloadbalancing:DescribeLoadBalancerAttributes",
"elasticloadbalancing:DescribeListeners",
"elasticloadbalancing:DescribeListenerCertificates",
"elasticloadbalancing:DescribeSSLPolicies",
"elasticloadbalancing:DescribeRules",
"elasticloadbalancing:DescribeTargetGroups",
"elasticloadbalancing:DescribeTargetGroupAttributes",
"elasticloadbalancing:DescribeTargetHealth",
"elasticloadbalancing:DescribeTags",
"elasticloadbalancing:DescribeTrustStores",
"elasticloadbalancing:DescribeListenerAttributes",
"elasticloadbalancing:DescribeCapacityReservation"
],
"Resource": "*"
},
{
  "Effect": "Allow",
  "Action": [
    "cognito-idp:DescribeUserPoolClient",
```

```

    "acm:ListCertificates",
    "acm:DescribeCertificate",
    "iam:ListServerCertificates",
    "iam:GetServerCertificate",
    "waf-regional:GetWebACL",
    "waf-regional:GetWebACLForResource",
    "waf-regional:AssociateWebACL",
    "waf-regional:DisassociateWebACL",
    "wafv2:GetWebACL",
    "wafv2:GetWebACLForResource",
    "wafv2:AssociateWebACL",
    "wafv2:DisassociateWebACL",
    "shield:GetSubscriptionState",
    "shield:DescribeProtection",
    "shield:CreateProtection",
    "shield>DeleteProtection"
  ],
  "Resource": "*"
},
{
  "Effect": "Allow",
  "Action": [
    "ec2:AuthorizeSecurityGroupIngress",
    "ec2:RevokeSecurityGroupIngress"
  ],
  "Resource": "*"
},
{

```

```
"Effect": "Allow",
"Action": [
    "ec2:CreateSecurityGroup"
],
"Resource": "*"
},
{
    "Effect": "Allow",
    "Action": [
        "ec2:CreateTags"
    ],
    "Resource": "arn:aws:ec2:*:*:security-group/*",
    "Condition": {
        "StringEquals": {
            "ec2:CreateAction": "CreateSecurityGroup"
        },
        "Null": {
            "aws:RequestTag/elbv2.k8s.aws/cluster": "false"
        }
    }
},
{
    "Effect": "Allow",
    "Action": [
        "ec2:CreateTags",
        "ec2>DeleteTags"
    ],
    "Resource": "arn:aws:ec2:*:*:security-group/*",
```

```
"Condition": {
  "Null": {
    "aws:RequestTag/elbv2.k8s.aws/cluster": "true",
    "aws:ResourceTag/elbv2.k8s.aws/cluster": "false"
  }
},
{
  "Effect": "Allow",
  "Action": [
    "ec2:AuthorizeSecurityGroupIngress",
    "ec2:RevokeSecurityGroupIngress",
    "ec2>DeleteSecurityGroup"
  ],
  "Resource": "*",
  "Condition": {
    "Null": {
      "aws:ResourceTag/elbv2.k8s.aws/cluster": "false"
    }
  }
},
{
  "Effect": "Allow",
  "Action": [
    "elasticloadbalancing:CreateLoadBalancer",
    "elasticloadbalancing:CreateTargetGroup"
  ],
  "Resource": "*",
```

```
"Condition": {
  "Null": {
    "aws:RequestTag/elbv2.k8s.aws/cluster": "false"
  }
},
{
  "Effect": "Allow",
  "Action": [
    "elasticloadbalancing:CreateListener",
    "elasticloadbalancing>DeleteListener",
    "elasticloadbalancing>CreateRule",
    "elasticloadbalancing>DeleteRule"
  ],
  "Resource": "*"
},
{
  "Effect": "Allow",
  "Action": [
    "elasticloadbalancing:AddTags",
    "elasticloadbalancing:RemoveTags"
  ],
  "Resource": [
    "arn:aws:elasticloadbalancing:*:*:targetgroup/*/*",
    "arn:aws:elasticloadbalancing:*:*:loadbalancer/net/*/*",
    "arn:aws:elasticloadbalancing:*:*:loadbalancer/app/*/*"
  ],
  "Condition": {
```

```

    "Null": {
      "aws:RequestTag/elbv2.k8s.aws/cluster": "true",
      "aws:ResourceTag/elbv2.k8s.aws/cluster": "false"
    }
  }
},
{
  "Effect": "Allow",
  "Action": [
    "elasticloadbalancing:AddTags",
    "elasticloadbalancing:RemoveTags"
  ],
  "Resource": [
    "arn:aws:elasticloadbalancing:*:*:listener/net/*/*/*",
    "arn:aws:elasticloadbalancing:*:*:listener/app/*/*/*",
    "arn:aws:elasticloadbalancing:*:*:listener-rule/net/*/*/*",
    "arn:aws:elasticloadbalancing:*:*:listener-rule/app/*/*/*"
  ]
},
{
  "Effect": "Allow",
  "Action": [
    "elasticloadbalancing:ModifyLoadBalancerAttributes",
    "elasticloadbalancing:SetIpAddressType",
    "elasticloadbalancing:SetSecurityGroups",
    "elasticloadbalancing:SetSubnets",
    "elasticloadbalancing>DeleteLoadBalancer",
    "elasticloadbalancing:ModifyTargetGroup",

```

```
    "elasticloadbalancing:ModifyTargetGroupAttributes",
    "elasticloadbalancing>DeleteTargetGroup",
    "elasticloadbalancing:ModifyListenerAttributes",
    "elasticloadbalancing:ModifyCapacityReservation",
    "elasticloadbalancing:ModifyIpPools"
  ],
  "Resource": "*",
  "Condition": {
    "Null": {
      "aws:ResourceTag/elbv2.k8s.aws/cluster": "false"
    }
  }
},
{
  "Effect": "Allow",
  "Action": [
    "elasticloadbalancing:AddTags"
  ],
  "Resource": [
    "arn:aws:elasticloadbalancing:*:*:targetgroup/*/*",
    "arn:aws:elasticloadbalancing:*:*:loadbalancer/net/*/*",
    "arn:aws:elasticloadbalancing:*:*:loadbalancer/app/*/*"
  ],
  "Condition": {
    "StringEquals": {
      "elasticloadbalancing:CreateAction": [
        "CreateTargetGroup",
        "CreateLoadBalancer"
      ]
    }
  }
}
```

```

    ]
  },
  "Null": {
    "aws:RequestTag/elbv2.k8s.aws/cluster": "false"
  }
}
},
{
  "Effect": "Allow",
  "Action": [
    "elasticloadbalancing:RegisterTargets",
    "elasticloadbalancing:DeregisterTargets"
  ],
  "Resource": "arn:aws:elasticloadbalancing:*:*:targetgroup/*/*"
},
{
  "Effect": "Allow",
  "Action": [
    "elasticloadbalancing:SetWebAcl",
    "elasticloadbalancing:ModifyListener",
    "elasticloadbalancing:AddListenerCertificates",
    "elasticloadbalancing:RemoveListenerCertificates",
    "elasticloadbalancing:ModifyRule",
    "elasticloadbalancing:SetRulePriorities"
  ],
  "Resource": "*"
}
]

```

}

**AWSLoadBalancerControllerIAMPolicyV1** [Info](#) [Edit](#) [Delete](#)

**Policy details**

Type Customer managed	Creation time August 14, 2025, 11:35 (UTC+05:30)	Edited time August 14, 2025, 11:35 (UTC+05:30)	ARN <a href="#">arn:aws:iam::975050122380:policy/AWSLoadBalancerControllerIAMPolicyV1</a>
--------------------------	---	---	--

[Permissions](#) [Entities attached](#) [Tags](#) [Policy versions \(1\)](#) [Last Accessed](#)

**Permissions defined in this policy** [Info](#) [Edit](#) [Summary](#) [JSON](#)

Permissions defined in this policy document specify which actions are allowed or denied. To define permissions for an IAM identity (user, user group, or role), attach a policy to it.

**Allow (9 of 449 services)** [Show remaining 440 services](#)

Service	Access level	Resource	Request condition
<a href="#">Certificate Manager</a>	Full; List Limited; Read	All resources	None
<a href="#">Cognito User Pools</a>	Limited; Read	All resources	None
<a href="#">EC2</a>	Full; Tagging Limited; List; Read; Write	Multiple	Multiple

## Create Load Balancer

```
eksctl create iamserviceaccount --cluster bankingcluster --region us-east-1 --  
namespace kube-system --name aws-load-balancer-controller --role-name  
AmazonEKSLoadBalancerControllerRole --attach-policy-arn  
arn:aws:iam::975050122380:policy/AWSLoadBalancerControllerIAMPolicy --override-  
existing-serviceaccounts --approve
```

```
Administrator: Command Prompt
C:\Windows\System32\cmd.exe /c awscli create iamserviceaccount --cluster barkingcluster --region us-east-1 --namespace kube-system --name aws-load-balancer-controller --pol
e-name AmazonEKSLoadBalancerControllerRole --attach-policy-arn arn:aws:iam::975050122390:policy/AmazonEKSLoadBalancerControllerIAMPolicy --override-existing-serviceaccounts --
approve
2025-08-14 12:18:38 [I] 1:iamserviceaccount (kube-system/aws-load-balancer-controller) was included (based on the include/exclude rules)
2025-08-14 12:18:38 [I] metadata of serviceaccounts that exist in Kubernetes will be updated, as --override-existing-serviceaccounts was set
2025-08-14 12:18:38 [I] 1 task: {
  2 sequential sub-tasks: {
    create IAM role for serviceaccount "kube-system/aws-load-balancer-controller",
    create serviceaccount "kube-system/aws-load-balancer-controller",
  } [2025-08-14 12:18:38 [I] building iamserviceaccount stack "eksctl-barkingcluster-addon-iamserviceaccount-kube-system-aws-load-balancer-controller"
2025-08-14 12:18:39 [I] deploying stack "eksctl-barkingcluster-addon-iamserviceaccount-kube-system-aws-load-balancer-controller"
2025-08-14 12:18:39 [I] waiting for CloudFormation stack "eksctl-barkingcluster-addon-iamserviceaccount-kube-system-aws-load-balancer-controller"
2025-08-14 12:18:39 [I] waiting for CloudFormation stack "eksctl-barkingcluster-addon-iamserviceaccount-kube-system-aws-load-balancer-controller"
2025-08-14 12:18:42 [I] created serviceaccount "kube-system/aws-load-balancer-controller"
C:\Windows\System32>
```

Confirm

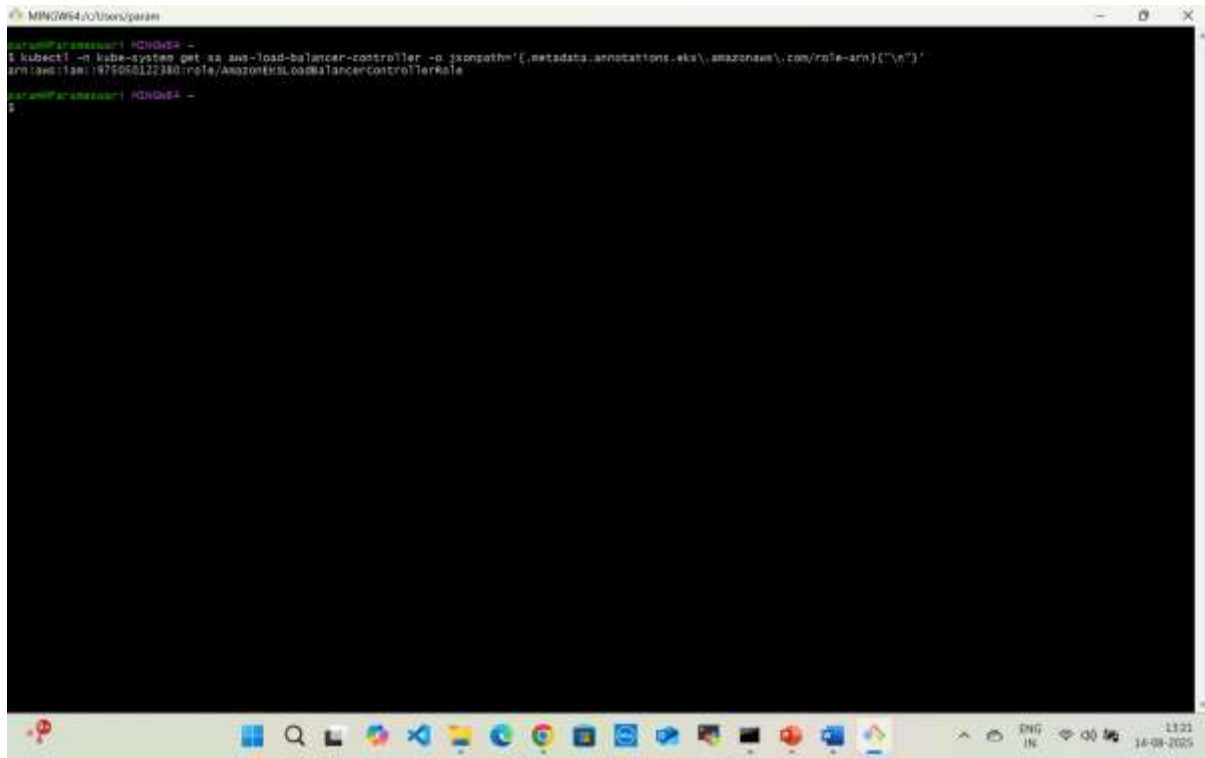
kubectl -n kube-system get sa aws-load-balancer-controller -o yaml

```
Administrator: Command Prompt
C:\Windows\System32\cmd.exe /c kubectl -n kube-system get sa aws-load-balancer-controller -o yaml
apiVersion: v1
kind: ServiceAccount
metadata:
  annotations:
    eks.amazonaws.com/role-arn: arn:aws:iam::975050122390:role/AmazonEKSLoadBalancerControllerRole
    creationTimestamp: "2025-08-14T06:49:13Z"
  labels:
    app.kubernetes.io/managed-by: eksctl
  name: aws-load-balancer-controller
  namespace: kube-system
  resourceVersion: "37256"
  uid: f916181e-5ee2-4d13-95a6-0223b71fe249
C:\Windows\System32>
```

kubectl -n kube-system get sa aws-load-balancer-controller

```
kubectl -n kube-system get sa aws-load-balancer-controller -o  
jsonpath='{.metadata.annotations.eks\.amazonaws\.com/role-arn}'
```

open bash script



```
MINIOWS4\O\OpenParam  
C:\Users\Param> kubectl -n kube-system get sa aws-load-balancer-controller -o jsonpath='{.metadata.annotations.eks\.amazonaws\.com/role-arn}'  
arn:aws:iam::97608122380:role/AmazonEKSLoadBalancerControllerRole  
C:\Users\Param>
```

### C) Install the controller (Helm)

```
helm repo add eks https://aws.github.io/eks-charts
```

```
helm repo update
```

```
helm upgrade -i aws-load-balancer-controller eks/aws-load-balancer-controller -n  
kube-system --set clusterName=bankingcluster --set region=us-east-1 --set  
serviceAccount.create=false --set serviceAccount.name=aws-load-balancer-controller
```

Verify it's up:

```
kubectl -n kube-system get deploy aws-load-balancer-controller
```

```
kubectl -n kube-system get pods -l app.kubernetes.io/name=aws-load-balancer-  
controller -o wide
```

```
kubectl -n kube-system logs deploy/aws-load-balancer-controller | tail -n 100
```

#### D) Create the IngressClass (fixes your earlier error)

```
cat <<'YAML' | kubectl apply -f -
```

```
apiVersion: networking.k8s.io/v1
```

```
kind: IngressClass
```

```
metadata:
```

```
  name: alb
```

```
spec:
```

```
  controller: ingress.k8s.aws/alb
```

YAML

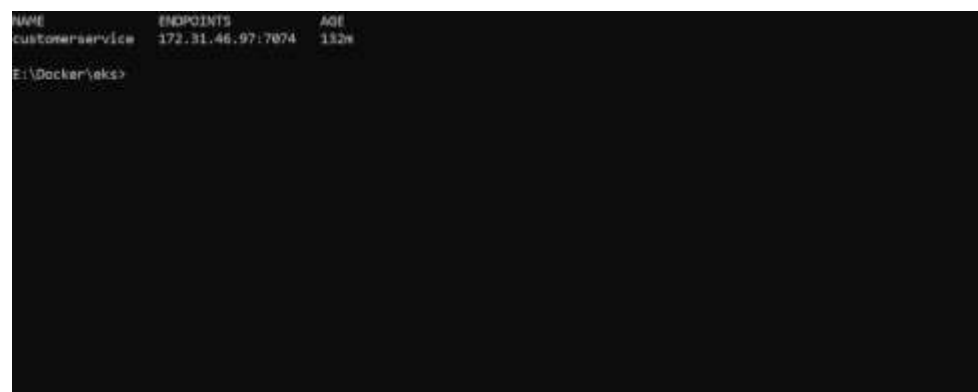
```
kubectl get ingressclass
```

Goto docker/eks

```
>kubectl apply -f ingress-customer.yaml
```

```
kubectl get ingress customerservice -w
```

```
kubectl get endpoints customerservice
```



A terminal window showing the output of the command 'kubectl get endpoints customerservice'. The output is a table with three columns: NAME, ENDPOINTS, and AGE. The first row shows 'customerservice' with endpoints '172.31.46.97:7074' and an age of '132m'. The prompt 'E:\Docker\eks>' is visible at the bottom.

NAME	ENDPOINTS	AGE
customerservice	172.31.46.97:7074	132m

**Do these 5 commands (safe to copy-paste)**

# 1) Tell Kubernetes this Ingress should be handled by the ALB controller

```
kubectl patch ingress customerservice --type='json' \
-p='[{"op":"add","path":"/spec/ingressClassName","value":"alb"}]'
```

# (alternative to step 1 if you prefer annotations)

```
kubectl annotate ingress customerservice kubernetes.io/ingress.class=alb --overwrite
```

# 2) Make it public (or use "internal" for VPC-only)

```
kubectl annotate ingress customerservice alb.ingress.kubernetes.io/scheme=internet-
facing --overwrite
```

# 3) Choose the target type:

# - If your Service is ClusterIP -> use ip

# - If your Service is NodePort -> use instance

```
kubectl annotate ingress customerservice alb.ingress.kubernetes.io/target-type=ip --
overwrite
```

# If your Service is NodePort, instead run:

```
# kubectl annotate ingress customerservice alb.ingress.kubernetes.io/target-
type=instance --overwrite
```

# 4) (Recommended) set a correct healthcheck path for your app

```
kubectl annotate ingress customerservice alb.ingress.kubernetes.io/healthcheck-
path=/actuator/health --overwrite
```

# 5) Watch it reconcile

```
kubectl get ing customerservice -w
```

If things are wired correctly, ADDRESS will populate with an **ALB DNS name** within 1–3 minutes.

---

**If ADDRESS is still empty, check these quickly**

**A) Ingress events (tells you the exact blocker)**

```
kubectl describe ingress customerservice | sed -n '/Events/, $p'
```

**B) Controller health & logs**

```
kubectl -n kube-system get deploy aws-load-balancer-controller
```

```
kubectl -n kube-system logs deploy/aws-load-balancer-controller | egrep -i  
'error|denied|forbid|subnet|iam|quota'
```

**C) Service & endpoints exist**

```
kubectl get svc customerservice -o wide
```

```
kubectl get endpoints customerservice
```

- Using target-type: ip? Service should be **ClusterIP**.
- Using target-type: instance? Service can be **NodePort**.

**D) Subnet tags (most common cause)**

- On all EKS subnets: `kubernetes.io/cluster/<cluster-name>=shared` (or owned)
- Public ALB: `kubernetes.io/role/elb=1` on public subnets
- Internal ALB: `kubernetes.io/role/internal-elb=1` on private subnets

---

**Minimal known-good Ingress (HTTP, public, IP targets)**

```
apiVersion: networking.k8s.io/v1
```

```
kind: Ingress
```

```
metadata:
```

```
  name: customerservice
```

```
  annotations:
```

```
    kubernetes.io/ingress.class: alb
```

```
    alb.ingress.kubernetes.io/scheme: internet-facing
```

```
    alb.ingress.kubernetes.io/target-type: ip
```

```
    alb.ingress.kubernetes.io/healthcheck-path: /actuator/health # change if needed
```

```
spec:
```

rules:

- http:

paths:

- path: /

pathType: Prefix

backend:

service:

name: customerservice

port:

number: 7074

Apply it:

# If you use target-type: ip, ensure Service is ClusterIP

```
kubectl patch svc customerservice -p '{"spec":{"type":"ClusterIP"}}'
```

```
kubectl apply -f ingress-customerservice.yaml
```

```
kubectl get ing customerservice -w
```