**Set up AWS Load Balancer and Ingress**

# Create a cluster and nodegroup with the help of terraform/eksctl/ cloudformation.

# Use aws eks update-kube-config command to connect to the cluster.

Command - aws eks update kubeconfig –region <region> --name <cluster-name>

Optional: Check the connectivity through - kubectl get nodes command.

# Now we can go ahead with installing AWS Load Balancer controller

Follow this documentation to install AWS Load Balancer controller -

<https://docs.aws.amazon.com/eks/latest/userguide/aws-load-balancer-controller.html>

# Create a OIDC provider if not present already.

Command - eksctl utils associate-iam-oidc-provider --cluster <cluster-name> --approve

Refer the documentation to create a policy.

Now create role using the the above created policy.

AWS Console -> IAM -> Choose Trusted Entity type as Web Identity -> Provider -> choose OIDC

-> Audience (sts.amazonaws.com) -> Next -> Choose the above created policy -> Create

Now copy the role arn from the console and create service account using this YAML file.

---- YAML file screenshot ---



Install the aws load balancer controller using HELM

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

helm repo update eks

Command - helm upgrade --install aws-load-balancer-controller eks/aws-load-balancer-controller -n kube-system --set clusterName=test --set serviceAccount.create=false --set serviceAccount.name=aws-load-balancer-controller

Check status by - kubectl get deploy -n kube-system

Now you can deploy your deployments and services

After the services and deployment are created, you can apply ingress resource which will create the load balancer in aws console.

Use these sample codes if required

Deployment file using the 2048 game public image



Service file



Ingress file for 2048-game namespace



You can use any host of your choice

Use the group.name annotation to launch a single alb and to connect multiple services across namespaces if required.

If you need all the deployments in a single namespace you can omit the above annotation.