**2. Review kubernetes manifest - Deployment and Service with NLB Annotation**

--- Reference - <https://github.com/stacksimplify/aws-eks-kubernetes-masterclass/tree/master/19-ELB-Network-LoadBalancers-with-LBC>

**Introduction**

--- Understand more about

1. AWS Cloud Provider Load Balancer Controller (Legacy): Creates AWS CLB and NLB
2. AWS Load Balancer Controller (Latest): Creates AWS ALB and NLB

--- Understand how the Kubernetes Service of Type Load Balancer which can create AWS NLB to be associated with latest AWS Load Balancer Controller.

--- Understand various NLB Annotations

**Review 01-Nginx-App3-Deployment.yml**

--- File Name: kube-manifests/01-Nginx-App3-Deployment.yml

apiVersion: apps/v1

kind: Deployment

metadata:

  name: app3-nginx-deployment

  labels:

    app: app3-nginx

spec:

  replicas: 1

  selector:

    matchLabels:

      app: app3-nginx

  template:

    metadata:

      labels:

        app: app3-nginx

    spec:

      containers:

        - name: app2-nginx

          image: stacksimplify/kubenginx:1.0.0

          ports:

            - containerPort: 80

**Review 02-LBC-NLB-LoadBalancer-Service.yml**

--- File Name: kube-manifests\02-LBC-NLB-LoadBalancer-Service.yml

apiVersion: v1

kind: Service

metadata:

  name: basics-lbc-network-lb

  annotations:

    # Traffic Routing

    service.beta.kubernetes.io/aws-load-balancer-name: basics-lbc-network-lb

    service.beta.kubernetes.io/aws-load-balancer-type: external # you want to create a latest aws load balancer latest.

    service.beta.kubernetes.io/aws-load-balancer-nlb-target-type: instance

    #service.beta.kubernetes.io/aws-load-balancer-subnets: subnet-xxxx, mySubnet ## Subnets are auto-discovered if this annotation is not specified, see Subnet Discovery for further details. Here you can give subnet id.

    # Health Check Settings

    service.beta.kubernetes.io/aws-load-balancer-healthcheck-protocol: http

    service.beta.kubernetes.io/aws-load-balancer-healthcheck-port: traffic-port

    service.beta.kubernetes.io/aws-load-balancer-healthcheck-path: /index.html

    service.beta.kubernetes.io/aws-load-balancer-healthcheck-healthy-threshold: "3"

    service.beta.kubernetes.io/aws-load-balancer-healthcheck-unhealthy-threshold: "3"

    service.beta.kubernetes.io/aws-load-balancer-healthcheck-interval: "10" # The controller currently ignores the timeout configuration due to the limitations on the AWS NLB. The default timeout for TCP is 10s and HTTP is 6s.

    # Access Control

    service.beta.kubernetes.io/load-balancer-source-ranges: 0.0.0.0/0

    service.beta.kubernetes.io/aws-load-balancer-scheme: "internet-facing"

    # AWS Resource Tags

    service.beta.kubernetes.io/aws-load-balancer-additional-resource-tags: Environment=dev,Team=test

spec:

  type: LoadBalancer

  selector:

    app: app3-nginx

  ports:

    - port: 80

      targetPort: 80