Kubernetes (EKS or GKE)

1: Write Script to creating Microservice using Nginx webserver to show default webpage. Create Kubernetes configuration files. Expose this microservice on ClusterIP, NodePort and as a LoadBalancer. Create a custom webpage to show which pod the page is loading from (it should automatically change with every refresh).

Solution :-

deployment.yml

```
apiVersion: extensions/v1beta1
kind: Deployment
metadata:
  name: nginx-austin-deployment-lb
spec:
  replicas: 2
  minReadySeconds: 15
  strategy:
    type: RollingUpdate
    rollingUpdate:
      maxUnavailable: 1
      maxSurge: 1
  template:
    metadata:
      labels:
        app: nginx
    spec:
      containers:
        - image: austindsouza1997/docker-assignment:latest
          imagePullPolicy: Always
          name: nginx
          ports:
            - containerPort: 8080
```

For NobePort : service.yml

```
apiVersion: v1
kind: Service
metadata:
  name: nginx-np-austin
spec:
  type: NodePort
  ports:
  - port: 8080
    protocol: TCP
    targetPort: 8080
  selector:
    ausapp: nginx
```

For LoadBalancer : service.yml

```
apiVersion: v1
kind: Service
metadata:
  name: nginx-lb-austin
spec:
  type: LoadBalancer
  ports:
  - port: 8080
    protocol: TCP
    targetPort: 8080
  selector:
   ausapp: nginx
```

For ClusterIp : service.yml

```
apiVersion: v1
kind: Service
metadata:
  name: nginx-cip-austin
spec:
  type: ClusterIP
  ports:
  - port: 8080
    protocol: TCP
    targetPort: 8080
  selector:
    ausapp: nginx
```