2048game hosted using Manifest file with namespace.

Step 1:- Create an EKS Cluster

Step 2:- Create nodegroup for EKS Cluster

Step 3:- Use Cloudshell

Step 4:- AWS Configure
Access key =
Secret key =

Step 5:- Connect to Cluster

aws eks --region <region_name> update-kubeconfig --name <cluster_name>

Step 6:- Check nodes & cluster-info

kubectl get nodes
kubectl cluster-info

Step 7:- Create Namespace

kubectl create ns <name>

```
[cloudshell-user@ip-10-134-93-160 ~]$ kubectl create ns prat
namespace/prat created
[cloudshell-user@ip-10-134-93-160 ~]$ kubectl get ns
NAME              STATUS   AGE
default           Active   40m
kube-node-lease   Active   40m
kube-public       Active   40m
kube-system       Active   40m
prat              Active   24s
[cloudshell-user@ip-10-134-93-160 ~]$ ls
```

Step 8:- Create manifest file for pod and service

game.yml

```yaml
apiVersion: v1
kind: Pod
metadata:
  name: game
  labels:
   app: game
  namespace: prat
spec:
  containers:
   - name: game1
     image: blackicebird/2048:latest
     ports:
     - containerPort: 80
       protocol: TCP
---
apiVersion: v1
kind: Service
metadata:
   name: myserv
   namespace: prat
spec:
  selector:
    app: game
  type: NodePort
  ports:
    - protocol: TCP
```

```
    port: 80
    targetPort: 80
    name: game1
...
```

Step 9:- Create Pod and Service using manifest file

kubectl apply game.yml
kubectl get -n <namespace_name> pods
kubectl get -n <namespace_name> svc

```
[cloudshell-user@ip-10-134-93-160 2048game]$ kubectl apply -f game.yml
pod/game unchanged
service/myserv created
[cloudshell-user@ip-10-134-93-160 2048game]$ kubectl get -n prat pods
NAME   READY   STATUS    RESTARTS   AGE
game   1/1     Running   0          103s
[cloudshell-user@ip-10-134-93-160 2048game]$ kubectl get -n prat svc
NAME     TYPE       CLUSTER-IP     EXTERNAL-IP   PORT(S)        AGE
myserv   NodePort   10.100.180.3   <none>        80:30817/TCP   21s
[cloudshell-user@ip-10-134-93-160 2048game]$ kubectl get -o wide nodes
NAME                                            STATUS   ROLES    AGE   VERSION              INTERNAL-IP    EXTERNAL-IP      OS-IMAGE         KERNEL-VERSION                  CONTAINER-RUNTIME
ip-172-31-27-31.ap-southeast-1.compute.internal   Ready    <none>   62m   v1.29.0-eks-5e0fdde   172.31.27.31   52.221.181.218   Amazon Linux 2   5.10.210-201.852.amzn2.x86_64   containerd://1.7.11
[cloudshell-user@ip-10-134-93-160 2048game]$
```

Step 10:- Copy ExternalP with port_number and Paste in browser