1. Install Azure cli on pc
2. Install terraform on pc
3. Login using “az login”
4. Add provider with subscription id using

$env:ARM\_SUBSCRIPTION\_ID = ""

echo $env:ARM\_SUBSCRIPTION\_ID

1. Add resource group
2. Add resource group names and stuff as a variable,
3. Adiing **azurerm\_kubernetes\_cluster as main tf**

**Networkprofle**  don’t need to be define , its take default and kubenet

*If network\_profile is not defined, kubenet profile will be used by default.*

1. Initialize and plan terraform with

Terraform init

Terraform plan

After that can apply , **terraform apply** , then its apply

Verify installed kubectl on pc

Connect to the cluster using kubectl

az aks get-credentials --resource-group bistec-rg --name bistec-cluster

check cluster node

kubectl get nodes

make deployment and service files

apply deployment and service files

kubectl apply -f k8s/deployment.yaml

kubectl apply -f k8s/service.yaml

References:

<https://registry.terraform.io/providers/hashicorp/azurerm/latest/docs/resources/kubernetes_cluster>

<https://kubernetes.io/docs/tutorials/stateful-application/basic-stateful-set/>

<https://www.google.com/search?q=need+of+terraform+aks+output+kubeconfig&sca_esv=b597786ab811f977&sxsrf=AHTn8zosAJTco1P0_089mMtHtsTIavOLTA%3A1741239387786&ei=WzTJZ5nbL8-u4-EPtIDEkAE&ved=0ahUKEwjZ9LWZ3vSLAxVP1zgGHTQAERIQ4dUDCBA&uact=5&oq=need+of+terraform+aks+output+kubeconfig&gs_lp=Egxnd3Mtd2l6LXNlcnAiJ25lZWQgb2YgdGVycmFmb3JtIGFrcyBvdXRwdXQga3ViZWNvbmZpZzIIEAAYogQYiQUyBRAAGO8FMggQABiiBBiJBTIIEAAYgAQYogQyBRAAGO8FSKwdUJcGWJURcAF4AZABAJgBkAGgAasHqgEDMS43uAEDyAEA-AEBmAIJoALeB8ICChAAGLADGNYEGEfCAgYQABgNGB7CAgsQABiABBiGAxiKBZgDAIgGAZAGCJIHAzEuOKAHmiQ&sclient=gws-wiz-serp>

<https://learn.microsoft.com/en-us/azure/aks/learn/quick-kubernetes-deploy-cli>

<https://kubernetes.io/docs/tasks/run-application/run-stateless-application-deployment/>

<https://kubernetes.io/docs/tasks/access-application-cluster/create-external-load-balancer/>

https://github.com/nginx/kubernetes-ingress/blob/main/deployments/service/loadbalancer.yaml

youtube

<https://www.youtube.com/watch?v=ujJlnZYRMZI&ab_channel=TechTutorialswithPiyush>

<https://youtu.be/UxOBAJlgzKM?si=OFGH9Oaba_4pXkxa>

<https://youtu.be/iNWC40Z_vrM?si=Yb_E38oSpUNXgvLK>

<https://youtu.be/seZXHDoE5Bc?si=Gr6C1JF82sKjD3Hm>

https://youtu.be/wFWg0Y68Owo?si=bEZwEN0QmCKWpeAH