#Install Minikube cluster on Windows through Command Line

winget install Kubernetes.minikube

#Start your cluster through docker

#Takes time as necessary images and dependcies are installed

minikube start --driver docker

A computer screen with white text

Description automatically generated

minikube status

A screen shot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generated

Kubectl get node

A black background with white text

Description automatically generated

#Minikube runs either on container or virtual machine - so need to have either Docker runtime software or VM

#Minikube has docker preinstalled to run containers in cluser

#Therefore there are 2 layers of Dockers - 1. Minikube runs as docker container; 2. Docker inside Minikube to run our application container

#Kubectl to configure deployment while minikubectl is for creating/deleting clusters

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Description automatically generated

**Project: Deploying MongoDB+WebApp in kubernetes**

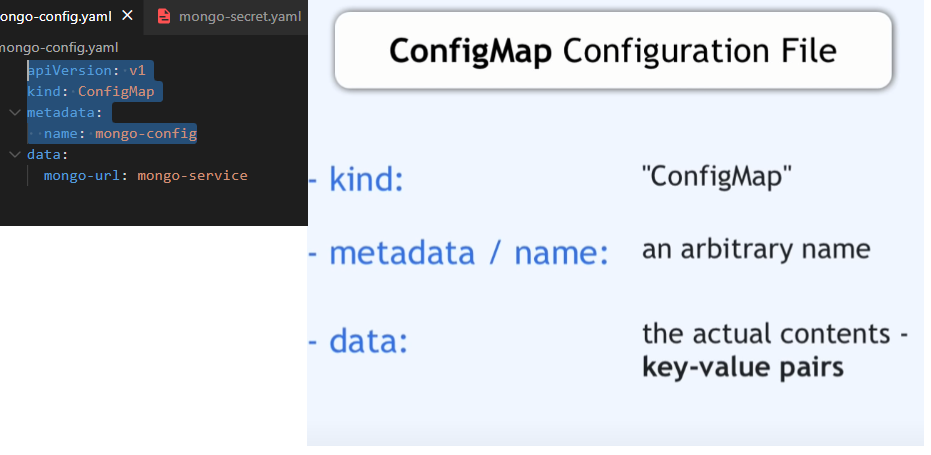
A computer screen with a computer screen

Description automatically generated with medium confidence

A screenshot of a computer

Description automatically generated

#Create mongo-config.yaml file

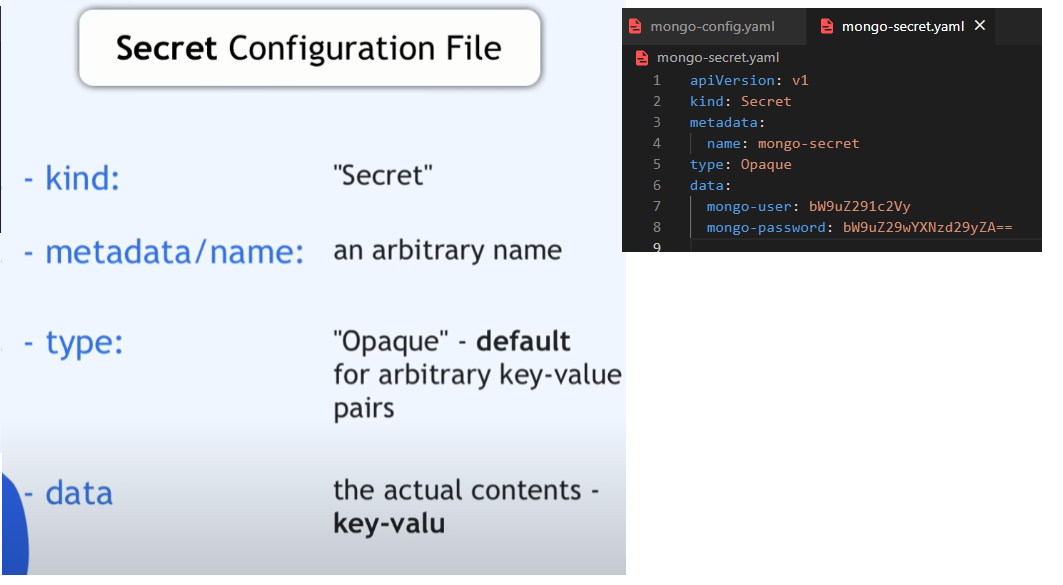


#Create mongo-secret.yaml file

#username & password should be baseencoded –

# echo -n mongouser | base64 –> bW9uZ291c2Vy

# echo -n mongopassword | base64 –> bW9uZ29wYXNzd29yZA==

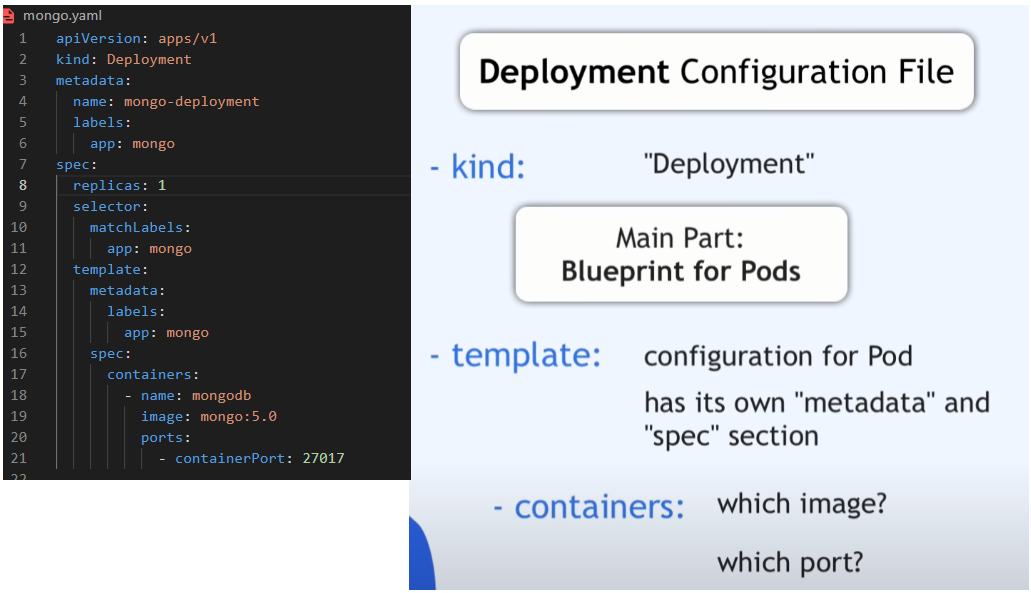


A screenshot of a phone

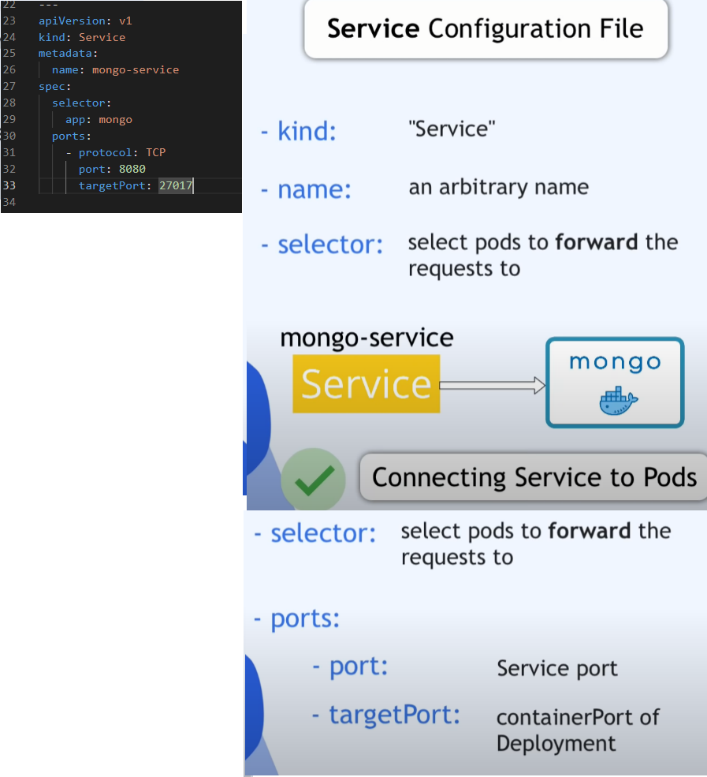
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#Create mongo.yaml file for deployment



Secrets

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Create deployment for web app as well

Then configure environments to passdown info that the deployments will need (connecting to ConfigMap, Secrets)

Make it accessible to external using Nodeport type in Service (Ports should be bw 30000-32767)

A screen shot of a computer

Description automatically generated

#Now that everything is setup

#Open Terminal – sicne minkube is already running

#Config and Secrets need to be mapped before Deployment

kubectl apply -f mongo-config.yaml

kubectl apply -f mongo.yaml

kubectl apply -f webapp.yaml

#Check status by

kubectl get all

A computer screen shot of a black screen

Description automatically generated

#Debug -> kubectl logs {pod\_name}

#Access app through webbrowser

#Get port+url by kubectl get svc -> Ports (but whats the main url?)

#it runs on the machine it was created on -> minikube ip (or) kubectl get node -o wide (gives internalIP) -> 192.168.49.2