MINIKUBE CONFIGURATION

Step 1:- Install Docker

Check docker service

```
root@ip-172-31-30-167:~# systemctl status docker
● docker.service - Docker Application Container Engine
     Loaded: loaded (/lib/systemd/system/docker.service; enabled; vendor pres>
     Active: active (running) since Tue 2024-03-26 16:25:13 UTC; 21s ago
TriggeredBy: ● docker.socket
       Docs: https://docs.docker.com
   Main PID: 583 (dockerd)
      Tasks: 9
     Memory: 110.4M
        CPU: 576ms
     CGroup: /system.slice/docker.service
             └─583 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/con>

Mar 26 16:25:12 ip-172-31-30-167 dockerd[583]: time="2024-03-26T16:25:12.7729>
Mar 26 16:25:12 ip-172-31-30-167 dockerd[583]: time="2024-03-26T16:25:12.7828>
Mar 26 16:25:13 ip-172-31-30-167 dockerd[583]: time="2024-03-26T16:25:13.2368>
Mar 26 16:25:13 ip-172-31-30-167 dockerd[583]: time="2024-03-26T16:25:13.2474>
Mar 26 16:25:13 ip-172-31-30-167 dockerd[583]: time="2024-03-26T16:25:13.6944>
Mar 26 16:25:13 ip-172-31-30-167 dockerd[583]: time="2024-03-26T16:25:13.7586>
Mar 26 16:25:13 ip-172-31-30-167 dockerd[583]: time="2024-03-26T16:25:13.8214>
Mar 26 16:25:13 ip-172-31-30-167 dockerd[583]: time="2024-03-26T16:25:13.8236>
Mar 26 16:25:13 ip-172-31-30-167 dockerd[583]: time="2024-03-26T16:25:13.8892>
Mar 26 16:25:13 ip-172-31-30-167 systemd[1]: Started Docker Application Conta>
```

Step 2:- Download and install minikube

Link (curl -LO https://storage.googleapis.com/minikube/releases/latest/minikube-linux-amd64 sudo install minikube-linux-amd64 /usr/local/bin/minikube && rm minikube-linux-amd64)

```
root@ip-172-31-30-167:~# curl -LO https://storage.googleapis.com/minikube/releases/latest/minikube-linux-amd64
sudo install minikube-linux-amd64 /usr/local/bin/minikube && rm minikube-linux-amd64
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100 89.3M  100 89.3M    0     0  17.2M      0  0:00:05  0:00:05 --:--:-- 20.0M
root@ip-172-31-30-167:~# minikube version
minikube version: v1.32.0
commit: 8220a6eb95f0a4d75f7f2d7b14cef975f050512d
root@ip-172-31-30-167:~#
```

Step 3:- Start minikube with docker driver

```
root@ip-172-31-30-167:~# minikube start --driver=docker --force
* minikube v1.32.0 on Ubuntu 22.04 (xen/amd64)
! minikube skips various validations when --force is supplied; this may lead to unexpected behavior
* Using the docker driver based on user configuration
* The "docker" driver should not be used with root privileges. If you wish to continue as root, use --force.
* If you are running minikube within a VM, consider using --driver=none:
*   https://minikube.sigs.k8s.io/docs/reference/drivers/none/
* Using Docker driver with root privileges
* Starting control plane node minikube in cluster minikube
* Pulling base image ...
* Downloading Kubernetes v1.28.3 preload ...
    > preloaded-images-k8s-v18-v1...:  403.35 MiB / 403.35 MiB  100.00% 21.31 M
    > gcr.io/k8s-minikube/kicbase...:  453.90 MiB / 453.90 MiB  100.00% 21.58 M
* Creating docker container (CPUs=2, Memory=2200MB) ...
* Preparing Kubernetes v1.28.3 on Docker 24.0.7 ...
  - Generating certificates and keys ...
  - Booting up control plane ...
  - Configuring RBAC rules ...
* Configuring bridge CNI (Container Networking Interface) ...
  - Using image gcr.io/k8s-minikube/storage-provisioner:v5
* Verifying Kubernetes components...
* Enabled addons: storage-provisioner, default-storageclass
* kubectl not found. If you need it, try: 'minikube kubectl -- get pods -A'
* Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
root@ip-172-31-30-167:~# minikube status
minikube
type: Control Plane
host: Running
kubelet: Running
apiserver: Running
kubeconfig: Configured
```

Docker container is created.

Step 4:- Check nodes

```
root@ip-172-31-30-167:~# minikube kubectl get nodes
    > kubectl.sha256:  64 B / 64 B [-------------------------] 100.00% ? p/s 0s
    > kubectl:  47.56 MiB / 47.56 MiB [--------------] 100.00% 3.51 MiB p/s 14s
NAME       STATUS   ROLES           AGE     VERSION
minikube   Ready    control-plane   2m18s   v1.28.3
root@ip-172-31-30-167:~#
```

Step 5:- Install kubectl and check cluster-info

```
root@ip-172-31-30-167:~# snap install kubectl --classic
kubectl 1.29.3 from Canonical✓ installed
root@ip-172-31-30-167:~# kubectl cluster-info
Kubernetes control plane is running at https://192.168.49.2:8443
CoreDNS is running at https://192.168.49.2:8443/api/v1/namespaces/kube-system/services/kube-dns:dns/proxy

To further debug and diagnose cluster problems, use 'kubectl cluster-info dump'.
root@ip-172-31-30-167:~#
```