

Devops class guvi (DAY-5)

****21 March 2025****

****Granting Jenkins Sudo Privileges**** – The jenkins ALL=(ALL) NOPASSWD: ALL entry in the sudoers file allows the Jenkins user to run any command without a password prompt.

****Restarting SSH Services**** – Commands like sudo systemctl restart ssh.service and sudo systemctl restart sshd.service restart the SSH service, ensuring remote login functionality.

****Installing OpenSSH Server**** – The commands sudo apt update and sudo apt install openssh-server update package lists and install the OpenSSH server for secure remote access.

****Checking SSH Service Status**** – sudo systemctl status ssh checks if the SSH service is running and displays its current status.

****Systemd Service File Lookup**** – ls /etc/systemd/system/sshd.service or ls

`/usr/lib/systemd/system/sshd.service` helps locate the SSH daemon's systemd service file.

****Reloading Systemd Daemon**** – `sudo systemctl daemon-reload` ensures that systemd picks up changes in service configurations without requiring a reboot.

****Encoding Minikube Certificate**** – `cat /home/david/.minikube/ca.crt | base64 -w 0; echo` encodes the Minikube CA certificate in base64 format, likely for authentication.

****Changing Docker Socket Permissions**** – `sudo chmod 666 /var/run/docker.sock` grants read and write access to all users for Docker's Unix socket, allowing non-root users to interact with Docker.

****Deploying Kubernetes Resources**** – `sh 'kubectl apply -f deployment.yml --validate=false'` applies a Kubernetes deployment file, ignoring validation errors.

****Accessing Minikube Service**** – `minikube service my-service --url | xargs curl` retrieves the Minikube service URL and sends an HTTP request to test its accessibility.

Commands:

```
jenkins ALL=(ALL) NOPASSWD: ALL
sudo systemctl restart ssh.service
sudo systemctl restart sshd.service
sudo apt update
sudo apt install openssh-server
sudo systemctl restart ssh
sudo systemctl status ssh
ls /etc/systemd/system/sshd.service or ls
/usr/lib/systemd/system/sshd.service
sudo systemctl daemon-reload
sudo systemctl status ssh
sudo systemctl restart ssh.service
cat /home/david/.minikube/ca.crt | base64 -w 0; echo
sudo chmod 666 /var/run/docker.sock
[https://192.168.39.226:8443](https://192.168.39.226:
8443/)
sh 'kubectl apply -f deployment.yml --validate=false'
minikube service my-service --url | xargs curl
```

Pipeline codes:

```
pipeline {
  agent any
```

```
environment {
```

```
    DOCKER_CREDENTIALS = credentials('docker-  
hub-cred') // Docker Hub Credentials ID  
}
```

```
stages {  
    stage('SCM') {  
        steps {  
            git branch: 'main', url:  
'<https://github.com/PJK-  
Prahalath/devops.git>'  
        }  
    }  
}
```

```
    stage('Build') {  
        steps {  
            sh "mvn clean"  
            sh "mvn install"  
        }  
    }  
}
```

```
    stage('Build Docker Image') {  
        steps {  
            script {  
                sh 'docker build -t image/devops.'  
            }  
        }  
    }  
}
```

```

    }

    stage('Push to Docker Hub') {
        steps {
            script {

docker.withRegistry('<https://index.docker.io/v1/>',
'docker-hub-cred') {
                sh 'docker push PJK-Prahalath/devops'
            }
        }
    }
}

}

pipeline {
    agent any

    stages {
        stage('SCM') {
            steps {
                git branch: 'main', url:
'<https://github.com/PJK-Prahalath/devops.git>'
            }
        }
    }
}

```

```
    }  
  }  
  stage('Build-clean') {  
    steps{  
      sh 'mvn clean'  
    }  
  }  
  stage('Build-validate') {  
    steps{  
      sh 'mvn validate'  
    }  
  }  
  stage('Build-compile') {  
    steps{  
      sh 'mvn compile'  
    }  
  }  
  stage('Build-test') {  
    steps{  
      sh 'mvn test'  
    }  
  }  
  stage('Build-package') {  
    steps{  
      sh 'mvn package'  
    }  
  }  
}
```

```
stage('build to images') {
    steps {
        script{
            sh "docker build -t prahalath99/webapp1"
        }
    }
}
stage('docker push hub') {
    steps {
        script{
            withDockerRegistry(credentialsId: 'cred-2', url:
'<https://index.docker.io/v1/>') {
                sh 'docker push prahalath99/webapp1'
            }
        }
    }
}
}}
```

```

praha@PKC ~
Memory usage: 38%      IPV4 address for eth0: 172.27.203.222
Swap usage: 0%

This message is shown once a day. To disable it please create the
/home/praha/.hushlogin file.

praha@PKC ~$ sudo cat /home/praha/.minikube/ca.crt | base64 -w 0; echo

[000] password for praha:
LS9tLS9lCUdJdTlBRDVJUSUzQ0RUS9tLS9tck1JSURCaNDQWJZ0F3S7U5Bz0tCQVR8TK3dUeU1KS29sa5w2Y9S8UUVQCLFBRgdnRBREndQdVfVQ2dnRUJBTp3CLVpa9g5R6hCLtQ9wX81VU11t1d2REZGc29NQd5wMmYmFR
LURNeE90tJnaIUwTzvd0ZURVUHQ1VHTQVRQ0dA1PY2nsmHmTlXhGkFQndQwQ37KREvZfWym1cmrKSm5wMF26h1jd3nRU1NQTBhKNTCoUdY25n1RFFQKFRVUBF8hCLtR8dbd2ZmPnRUtBb0LCQVdF
chIUemUwJrJfI0oduz2HsRJE10tRmYm5sDc2ScAkRFFcFBnQ7t5uNFJ1C2pCG0R1eTB3XRduRno5dVNTMWMVZNUJZ5Q12RVRUAdDjYwVYUZO2dnBdMURmYmFEGpmUDeVTKVPXFXTHtSbVnRTk11N8Z5UdJ23Jdy8rShP2
ZfHbPtKbckpQM9z2mR6M1nRCbEd5sY9611tCvM1t4dVc1NURhURUCVq5qkHozd7tCyUt1SndkIXFsQmFQJ4AS1FIkzNS9c0zK1TM9ZjwE2N33qunkanzMa2ER3hCOTHOVhA1b0vYh1Y4TtDmOC9PmTm1Svnp
Z59Y3QVc2dZ5V2NF0M/uadNYLzF4SmlRS1pM815UpM815e9pP6rPDmUdJqUv1L0kMkVpRE1QdQpCFmZ2T1ZHKzR0c5M1htV9s9a1d0a2R3S1VtbfkFN1T0BQdQzCLlEgMvNQTRQTHVZFR3RU1vd1FQKdJrM9GJC0Z95W
PNSVRUQz0W5dZz3mR6M1nRCbEd5sY9611tCvM1t4dVc1NURhURUCVq5qkHozd7tCyUt1SndkIXFsQmFQJ4AS1FIkzNS9c0zK1TM9ZjwE2N33qunkanzMa2ER3hCOTHOVhA1b0vYh1Y4TtDmOC9PmTm1Svnp
Z85Xk0y6aYm1NURhURUCVq5qkHozd7tCyUt1SndkIXFsQmFQJ4AS1FIkzNS9c0zK1TM9ZjwE2N33qunkanzMa2ER3hCOTHOVhA1b0vYh1Y4TtDmOC9PmTm1Svnp
cTDR0cZVmaZp0TKRzJ2FTT8hTm1NURhURUCVq5qkHozd7tCyUt1SndkIXFsQmFQJ4AS1FIkzNS9c0zK1TM9ZjwE2N33qunkanzMa2ER3hCOTHOVhA1b0vYh1Y4TtDmOC9PmTm1Svnp
N2SgVqWmFNp1hE1b0dFUKF1M25bEtBtR1XbWm5G5Kz2dMk1mMvX2hK1d1j2LS2XZT2BoU10JwYVzTmVU1NkVjzSmW2U0ZGmFmFwG9PqoTSELtUVR0C8RDUJUSUzQ0RUS9tLS9tCg==

praha@PKC ~$ sudo cat /home/praha/.minikube/profiles/minikube/client.crt | base64 -w 0; echo

LS9tLS9lCUdJdTlBRDVJUSUzQ0RUS9tLS9tck1JSURCaNDQWJZ0F3S7U5Bz0tCQVR8TK3dUeU1KS29sa5w2Y9S8UUVQCLFBRgdnRBREndQdVfVQ2dnRUJBTp3CLVpa9g5R6hCLtQ9wX81VU11t1d2REZGc29NQd5wMmYmFR
LURNeE90tJnaIUwTzvd0ZURVUHQ1VHTQVRQ0dA1PY2nsmHmTlXhGkFQndQwQ37KREvZfWym1cmrKSm5wMF26h1jd3nRU1NQTBhKNTCoUdY25n1RFFQKFRVUBF8hCLtR8dbd2ZmPnRUtBb0LCQVdF
chIUemUwJrJfI0oduz2HsRJE10tRmYm5sDc2ScAkRFFcFBnQ7t5uNFJ1C2pCG0R1eTB3XRduRno5dVNTMWMVZNUJZ5Q12RVRUAdDjYwVYUZO2dnBdMURmYmFEGpmUDeVTKVPXFXTHtSbVnRTk11N8Z5UdJ23Jdy8rShP2
ZfHbPtKbckpQM9z2mR6M1nRCbEd5sY9611tCvM1t4dVc1NURhURUCVq5qkHozd7tCyUt1SndkIXFsQmFQJ4AS1FIkzNS9c0zK1TM9ZjwE2N33qunkanzMa2ER3hCOTHOVhA1b0vYh1Y4TtDmOC9PmTm1Svnp
Z59Y3QVc2dZ5V2NF0M/uadNYLzF4SmlRS1pM815UpM815e9pP6rPDmUdJqUv1L0kMkVpRE1QdQpCFmZ2T1ZHKzR0c5M1htV9s9a1d0a2R3S1VtbfkFN1T0BQdQzCLlEgMvNQTRQTHVZFR3RU1vd1FQKdJrM9GJC0Z95W
PNSVRUQz0W5dZz3mR6M1nRCbEd5sY9611tCvM1t4dVc1NURhURUCVq5qkHozd7tCyUt1SndkIXFsQmFQJ4AS1FIkzNS9c0zK1TM9ZjwE2N33qunkanzMa2ER3hCOTHOVhA1b0vYh1Y4TtDmOC9PmTm1Svnp
Z85Xk0y6aYm1NURhURUCVq5qkHozd7tCyUt1SndkIXFsQmFQJ4AS1FIkzNS9c0zK1TM9ZjwE2N33qunkanzMa2ER3hCOTHOVhA1b0vYh1Y4TtDmOC9PmTm1Svnp
cTDR0cZVmaZp0TKRzJ2FTT8hTm1NURhURUCVq5qkHozd7tCyUt1SndkIXFsQmFQJ4AS1FIkzNS9c0zK1TM9ZjwE2N33qunkanzMa2ER3hCOTHOVhA1b0vYh1Y4TtDmOC9PmTm1Svnp
N2SgVqWmFNp1hE1b0dFUKF1M25bEtBtR1XbWm5G5Kz2dMk1mMvX2hK1d1j2LS2XZT2BoU10JwYVzTmVU1NkVjzSmW2U0ZGmFmFwG9PqoTSELtUVR0C8RDUJUSUzQ0RUS9tLS9tCg==

praha@PKC ~$ sudo cat /home/praha/.minikube/profiles/minikube/client.key | base64 -w 0; echo

LS9tLS9lCUdJdTlBRDVJUSUzQ0RUS9tLS9tck1JSURCaNDQWJZ0F3S7U5Bz0tCQVR8TK3dUeU1KS29sa5w2Y9S8UUVQCLFBRgdnRBREndQdVfVQ2dnRUJBTp3CLVpa9g5R6hCLtQ9wX81VU11t1d2REZGc29NQd5wMmYmFR
LURNeE90tJnaIUwTzvd0ZURVUHQ1VHTQVRQ0dA1PY2nsmHmTlXhGkFQndQwQ37KREvZfWym1cmrKSm5wMF26h1jd3nRU1NQTBhKNTCoUdY25n1RFFQKFRVUBF8hCLtR8dbd2ZmPnRUtBb0LCQVdF
chIUemUwJrJfI0oduz2HsRJE10tRmYm5sDc2ScAkRFFcFBnQ7t5uNFJ1C2pCG0R1eTB3XRduRno5dVNTMWMVZNUJZ5Q12RVRUAdDjYwVYUZO2dnBdMURmYmFEGpmUDeVTKVPXFXTHtSbVnRTk11N8Z5UdJ23Jdy8rShP2
ZfHbPtKbckpQM9z2mR6M1nRCbEd5sY9611tCvM1t4dVc1NURhURUCVq5qkHozd7tCyUt1SndkIXFsQmFQJ4AS1FIkzNS9c0zK1TM9ZjwE2N33qunkanzMa2ER3hCOTHOVhA1b0vYh1Y4TtDmOC9PmTm1Svnp
Z59Y3QVc2dZ5V2NF0M/uadNYLzF4SmlRS1pM815UpM815e9pP6rPDmUdJqUv1L0kMkVpRE1QdQpCFmZ2T1ZHKzR0c5M1htV9s9a1d0a2R3S1VtbfkFN1T0BQdQzCLlEgMvNQTRQTHVZFR3RU1vd1FQKdJrM9GJC0Z95W
PNSVRUQz0W5dZz3mR6M1nRCbEd5sY9611tCvM1t4dVc1NURhURUCVq5qkHozd7tCyUt1SndkIXFsQmFQJ4AS1FIkzNS9c0zK1TM9ZjwE2N33qunkanzMa2ER3hCOTHOVhA1b0vYh1Y4TtDmOC9PmTm1Svnp
Z85Xk0y6aYm1NURhURUCVq5qkHozd7tCyUt1SndkIXFsQmFQJ4AS1FIkzNS9c0zK1TM9ZjwE2N33qunkanzMa2ER3hCOTHOVhA1b0vYh1Y4TtDmOC9PmTm1Svnp
cTDR0cZVmaZp0TKRzJ2FTT8hTm1NURhURUCVq5qkHozd7tCyUt1SndkIXFsQmFQJ4AS1FIkzNS9c0zK1TM9ZjwE2N33qunkanzMa2ER3hCOTHOVhA1b0vYh1Y4TtDmOC9PmTm1Svnp
N2SgVqWmFNp1hE1b0dFUKF1M25bEtBtR1XbWm5G5Kz2dMk1mMvX2hK1d1j2LS2XZT2BoU10JwYVzTmVU1NkVjzSmW2U0ZGmFmFwG9PqoTSELtUVR0C8RDUJUSUzQ0RUS9tLS9tCg==

```



```
praha@PJK: ~  
The connection to the server 127.0.0.1:32769 was refused - did you specify the right host or port?  
praha@PJK:~/devops/Devops_Guvi_WAR$ cd ..  
praha@PJK:~/devops$ cd ..  
praha@PJK:~$ kubectl get node  
E0322 03:54:30.966541 4624 memcache.go:265] "Unhandled Error" err="couldn't get current server API group list: Get \"https://127.0.0.1:32769/api?timeout=32s\": dial tcp 127.0.0.1:32769: connect: connection refused"  
E0322 03:54:30.968178 4624 memcache.go:265] "Unhandled Error" err="couldn't get current server API group list: Get \"https://127.0.0.1:32769/api?timeout=32s\": dial tcp 127.0.0.1:32769: connect: connection refused"  
E0322 03:54:30.969891 4624 memcache.go:265] "Unhandled Error" err="couldn't get current server API group list: Get \"https://127.0.0.1:32769/api?timeout=32s\": dial tcp 127.0.0.1:32769: connect: connection refused"  
E0322 03:54:30.971510 4624 memcache.go:265] "Unhandled Error" err="couldn't get current server API group list: Get \"https://127.0.0.1:32769/api?timeout=32s\": dial tcp 127.0.0.1:32769: connect: connection refused"  
E0322 03:54:30.972947 4624 memcache.go:265] "Unhandled Error" err="couldn't get current server API group list: Get \"https://127.0.0.1:32769/api?timeout=32s\": dial tcp 127.0.0.1:32769: connect: connection refused"  
The connection to the server 127.0.0.1:32769 was refused - did you specify the right host or port?  
praha@PJK:~$ minikube start  
👉 minikube v1.35.0 on Ubuntu 24.04 (amd64)  
🔧 Using the docker driver based on existing profile  
🔥 Starting "minikube" primary control-plane node in "minikube" cluster  
📥 Pulling base image v0.0.46 ...  
🔄 Restarting existing docker container for "minikube" ...  
📦 Preparing Kubernetes v1.32.0 on Docker 27.4.1 ...  
🔍 Verifying Kubernetes components...  
▪ Using image gcr.io/k8s-minikube/storage-provisioner:v5  
🌟 Enabled addons: default-storageclass, storage-provisioner  
🔥 Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default  
praha@PJK:~$ kubectl get node  
NAME STATUS ROLES AGE VERSION  
minikube Ready control-plane 2d21h v1.32.0  
praha@PJK:~$
```

Minikube installation error

javaApplication #4 [Jenki

PJK-Prahalath/devops-simple

prahalath99/webapp1 image

Personal access tokens | Dock

+


▼

—

🔍

✕

localhost:8080/job/javaApplication/lastBuild/

 **Jenkins**

🔍 🔒 2 👤 Prahalath ⚙️ log out

Dashboard > javaApplication > #4

Status

</> Changes

📄 Console Output

📝 Edit Build Information

🗑️ Delete build '#4'

🕒 Timings

💎 Git Build Data

🔗 Pipeline Overview

📄 Pipeline Console

🔄 Restart from Stage

🔄 Replay

✅ #4 (Mar 21, 2025, 9:24:12 AM)

✎ Add description

Keep this build forever

🕒

Started by user [Prahalath](#)

Started 18 hr ago
Took [43 sec](#)

🕒

This run spent:

- 22 ms waiting;
- 43 sec build duration;
- 43 sec total from scheduled to completion.

💎 git

Revision: a61e6202913b4f64822ccd5c52d555f7ef916967

Repository: <https://github.com/PJK-Prahalath/devops-simple-web-app.git>

- refs/remotes/origin/main

</>

No changes.