**This is my Self Introduction**.

"Hi, Good Morning/Evening and thanks for your time. My name is K. Venkata Narasimha Rao, and I have over 12 years of IT experience, including 5 years of experience in DevOps and Cloud infrastructure and 3 years as a Linux Administrator.

Currently, I’m working as an Engineer Support at Moschip Technologies, and I’m assigned to Qualcomm as DevOps Engineer. My focus is on building & optimizing CI/CD pipelines, automating infrastructure provisioning using Terraform, managing configurations with Ansible, and Orchestrating containerized applications with Docker and Kubernetes. I also leverage various AWS services like EC2, VPC, IAM, S3, CloudWatch, Auto Scaling Groups, and Elastic Load Balancers to ensure scalable, efficient, and cost-effective cloud operations.

I started my career as a GIS Engineer, where i specialized in geospatial technologies for 4 years. After that, I transitioned into a Support Engineer role for a year, where I developed troubleshooting & technical support skills. My interest in technology led me to become a Linux Administrator, where I managed & ensured the stability and security of Linux servers for 3 years. This sparked my interest in Cloud Technologies and DevOps practices, and I transitioned into my current role as a Cloud & DevOps Engineer.

In my current role, I collaborate closely with development and operations teams to streamline and automate release processes, enabling faster, more reliable deployments through continuous integration and continuous delivery (CI/CD).

I’m passionate about driving automation, improving infrastructure scalability, and maintaining operational excellence in cloud environments.

I’m eager to apply my skills and continue growing in this dynamic field of cloud and DevOps technologies.

**Real-time Day-Day Activities of DevOps:**

1. Once Reached office, Check Emails & ServiceNow/Jira Tickets to know what needs to be done for day.
2. Check the Scheduled Automation Tasks Status and check Notifications from Monitoring System.
3. Check Critical Alerts to Ensure that there are no Critical Alerts un-attended.
4. Daily Standup meeting with team to discuss on current & upcoming projects once reached to office.
5. Help and Support to the Developers -- Make sure that they can write the code elegantly.
6. Help & Support to Prod Servers -- Make sure that the Environments, Dependencies are correct or not.
7. Automation for Replicative tasks using Shell and Python Scripts.
8. Jenkins Jobs -- Create Jenkins Jobs and Create CI/CD Pipeline for Application Testing & Deployment
9. Infrastructure Management -- check overall Infrastructure to figure out existing Infrastructure will sufficient or not. if not, talk to concerned authority and enable infrastructure as per requirement.
10. We do Infrastructure provisioning using Terraform, Configuration Management using Ansible, Branching Strategies using Git & GitHub, Application Deployment can be done using Docker, Kubernetes & Cloud AWS Services.
11. Approvals --- Need to Get the Approvals to Release the Application. and get the feedback from customers once released.

**Pipeline as a code**: Let’s create a Declarative pipeline ==> Create a new job ==> select project as pipeline

pipeline {

tools {

maven ‘maven’

}

agent any

stages {

stage (‘Clone Repo’){

Steps{

git 'https://github.com/Sonal0409/DevOpsCodeDemo.git'

}

}

stage (‘Code Compile’){

Steps{

sh ‘mvn compile’

}

}

stage (‘CodeReview’){

Steps{

sh ‘mvn pmd:pmd’

}

}

stage (‘Unit Testing’){

Steps{

sh ‘mvn test’

}

Post{

Success{

junit 'target/surefire-reports/\*.xml'

}

}

}

stage (‘Code Coverage’){

Steps{

sh ‘mvn cobertura:cobertura -Dcobertura.report.format=xml’

}

}

stage (‘Package’){

Steps{

sh ‘mvn package’

}

} }

**I am Responsible for:**

1 - Build and Release Process

2 - Managing User access on Resources (Grant/Revoke)

3 - Managing Various Branches of Git

4 - Create CICD Pipelines (Automation (CI/CD) of Repetitive tasks using GitHub/Jenkins/Ansible/Docker)

5 - Ensure to Sufficient Backup and Creating Backup Policy for Servers & Applications.

6 - Administration of IT Infra: Provisioning Infra using Terraform & Configuration Management - Ansible

7 - Choosing Right Deployment Models from Ansible, Docker, Kubernetes & AWS Cloud Services.

8 - Conducting the Critical Testing Protocol and Monitoring.

9 - Server Support & Applications Support.

**How do you start your day at work?**

* I start my day with Checking emails, teams’ messages, JIRA & ServiceNow tickets which are newly received, and which are assigned to me and to Ensure that there is not critical alert unattended.
* As a DevOps engineer, i start my day by Monitoring the Pipelines, Infrastructure, if there was any deployment overnight, stability of the infrastructure and services they providing to the organization.
* I attend the daily standup meetings with team and clients which defines the priority for the day, based on how the infrastructure is stable and what actions i must perform.
* **CICD Pipeline Updating/Creation**: Edit & modify the existing pipeline & we create for new project.
* **Configuration Management** using Ansible for any updates or changes as per user request.
* **Infrastructure Provision**: we use Terraform as an IaC for provisioning the infrastructure.

**Why do we use branching**? Branching is a technique used by development teams so that different teams can work parallelly in a more efficient way without impacting each other's work.

**Why do we need branching?** Branching allows teams of developers to easily collaborate inside of one central code base. When a developer creates a branch, the VCS creates a copy of the code base at that point in time. Changes to the branch don't affect other developers on the team.

**What are types of Git branches?** The 2 primary branches in Git flow are **Master/Main** & **Develop**. There are 3 types of supporting branches, they are: **Feature, Release, & Hotfix.**

**Which branching strategy is best?** Git-Flow is a comprehensive branching strategy that aims to cover various scenarios. It defines specific branch responsibilities, such as main/master for production, develop for active development, feature for new features, release as a gatekeeper to production, and hotfix for addressing urgent issues.

**What are types of git branches?**

**Master/Main Branch**: Master branch is the default branch in the Git repository for Production.

**Feature Branch (Topic branch**): A feature branch is a copy of the master/main codebase where an individual or team of software developers can work on a new feature until it is complete.

**Release Branch**: Branches for preparing and testing releases. Creating this branch starts the next release cycle, so no new features can be added after this point—only bug fixes, documentation generation, and other release-oriented tasks should go in this branch. Once it's ready to ship, the release branch gets merged into main and tagged with a version number.

**Hotfix Branch:** Branches for addressing critical issues & bug fixing issues in production environment.

**Develop Branch (Integration branch):** This is used by developers to develop any new feature.

**Why do you want to work at our company?**

Tell them what you like about the company and relate it to your long-term career goals.

**For Example:** Sir, it is a great privilege for anyone to work in a reputed company like yours. when i read about your company I found that my skills are matching your requirements. where i can showcase my technical skills to contribute to the company growth.

**What are your strengths?**

Adaptability, Hardworking, Honest, Flexible, Optimistic, Fast decision making, Persistence, Self-motivated.

**For Example**: I am a honest, self-motivated and hard working person with positive attitude towards my career and my life.

**What is your weakness?** Straightforward, Impatient, Sensitive, more talkative, Trust people very quickly, I can't say no when someone ask for help, take decisions very quickly, Gets nervous when talk to strangers, To speak lie is difficult for me, I am a bit lazy about which i am not interested.

**For Example**: I can't say no when someone ask for help, and I am a bit lazy about which i am not interested.

**Why should I hire you?** Share your knowledge, work experience, skill related to job, career goal.

**For Example**: Sir, with reference to my work experience, i satisfy all the requirement for this job. i am sincere with my work & would never let you down in anyway. i promise you will never regret for the decision to appoint me in your organization.

**Tell me what you know about this company?**

Study about the company in details, do the background work about new projects, know names of their owners and partners, Research about the company current issues, update your knowledge about their competitors. **For Example:** It is one of the best fastest growing company in India. The work environment of the company is very good. people feel proud to be part of the company as company provides full support to their employees in professional front It has many branches across the world. so i have good opportunity to show my talent.

**Why are you looking for a job change?** Say Thanks to previous organization, explain what you learn from the past job experience, share your reason for job change, relate to career goals.

**For Example:** I am thankful to my previous organization because i have learnt a lot of things from there. According to me changes are necessary for everyone to enhance your skills, knowledge and for personal growth and financial growth. your organization is the good platform where i can learn more.

**What are your salary requirements?**

Experience candidate can share their expected salary, always say as per the company norms for the job.

**Example:** I have 12years of experience in IT. My current CTC is 8LPA salary has never been a big issue for me. still i am expecting salary as company's norms as per my designation and my qualification and experience which can help me to maintain the standard of level of my personal and economical needs.

**what are your career goals?** Short term & Long-term goal.

**Example**: My short-term goal is to get a job in reputed company where i can utilize my skills and improve my career path. My Long-term goal is to be in respectable position in that organization.

**Finally, do you have any questions to ask me?**

Express thanks, Salary structure, Job Timings, Job Location, Overtime allowances, Training Period, Transport Facility.

**Example**: Thank you for giving this opportunity. Sir i would like to know about the job timings and transport facility and what will be the job location and salary scale for this job in your organization.

**DevOps Engineer Responsibilities**

**CI/CD Pipelines:** Design, build, optimize CI/CD pipelines for seamless application deployment. Collaborate with development teams to create CI pipelines and CD deployment groups aligned with sprint releases.

**Infrastructure Automation**: Automate infrastructure provisioning using Terraform for efficient and consistent deployments. Implement configuration management with Ansible to ensure standardization across environments.

**Containerization and Orchestration:** Containerize applications using Docker and manage orchestration with Kubernetes. Scale Kubernetes clusters up and down based on application and database load.

**Cloud Infrastructure Management**: Utilize AWS services like EC2, VPC, IAM, S3, CloudWatch, Auto Scaling Groups, and Elastic Load Balancers to optimize scalability and cost-effectiveness.

Perform cloud infrastructure builds and ensure the operational excellence of environments.

**Monitoring and Logging:** Use Nagios to monitor GPS networking signals and assess equipment health. Handle application logs and metrics, integrating them into dashboards or tools like Tableau and ServiceNow for reporting.

**System Support and Troubleshooting:** Provide remote support for Windows-based test equipment and control machines. Perform firmware updates, firewall configurations, and run remediation scripts for vulnerability issues.

**Networking and Communication**: Assign IP addresses and ensure network communication for test equipment and Control machines. Manage connectivity between test equipment and control systems.

**Test Equipment Calibration and Support:** Support test equipment calibration and ensure accurate measurements for operations. Address technical issues & maintain service excellence for test equipment.

**Collaboration:** Work closely with cross-functional teams to streamline release processes. Engage with development and operations teams to drive automation and improve system reliability.

**Roles and Responsibilities of a DevOps Engineer:**

**Design, build, & optimize CI/CD Pipelines**: Designing & implementing CI/CD pipelines to automate the application build, test, & deployment processes. using Git and Jenkins for seamless and efficient releases.

**Infrastructure Provisioning Infrastructure as Code (IaC):** We Use Terraform to define and manage AWS infrastructure like EC2, S3, VPC, and IAM programmatically.

**Configuration Management**: Automate server configurations and software installations with Ansible to maintain consistency and reduce manual efforts.

**Containerization and Orchestration**: We Use Docker to package applications into containers and Kubernetes to manage, scale, and orchestrate containerized applications effectively.

**Cloud Infrastructure Management:** Work with AWS services (e.g., EC2, S3, CloudWatch, Auto Scaling Groups, Elastic Load Balancers) to host scalable and cost-efficient cloud solutions.

**Monitoring and Troubleshooting:** We Set up AWS tools like CloudWatch and third-party solutions to monitor applications, identify issues, and ensure optimal performance.

**Collaboration:** We Work closely with developers and operations teams to streamline workflows and ensure successful deployments.

**Security Implementation:** Use IAM for access control, manage secrets securely, and ensure systems follow AWS and DevOps security best practices.

**Automation:** Automate tasks like deployments, scaling, and backups using Jenkins pipelines, Terraform, and Ansible playbooks.

**Documentation:** Maintain clear documentation for processes, pipelines, and infrastructure setups to support team collaboration and onboarding.

This role is critical in driving automation, improving system scalability, and ensuring smooth and efficient delivery pipelines.