Mangarapu Raghu

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Summary:

- Over all **4+years** of experience building, deploying, scaling robust AWS infrastructure for quickly growing web applications. Has experience with the Cloud and monitoring processes as well as DevOps development in **Windows** and **Linux** systems. Brings a Bachelor's Degree and experience working as a DevOps Engineer since shortly after the concept was introduced.
- Core strength in **Continuous Integration**, **Continuous Delivery** and **Continuous Deployment.**
- Setup, configure and maintain **GIT** repos, **Maven**, **Jenkins**, **Docker**, **Ansible, Nexus**, **and Tomcat** with **AWS Cloud** Services.
- Working experience on **Docker images, Containers** and writing the **Docker File**.
- Having experience on **AWS cloud services** like EC2, AMI, S3, IAM, VPC, Subnets & NAT Gateways.
- Good exposure in creating The Repositories, Branching, Merging and maintaining the version across the environments using **GIT** to keep tracking of all changes in source code.
- Having good experience on working with **Maven** and Understanding the Build Lifecycle, Artifacts, integration with Jenkins and Deploying executable files to Web Servers.
- Experience on building **Jenkins** Jobs for CI (Continuous Integration), CD (Continuous Deployment) methodologies and configuration **Slaves** in Jenkins.
- Hands on experience on repository management tool **Nexus** for storing **Artifacts**.
- Participate in software development lifecycle, specifically infra design, execution and debugging required to achieve successful implementation of integrated solutions within the portfolio.
- Experience in DevOps automation tools And Very well versed with DevOps Frameworks, **Agile**.
- Experience and good understanding in Cloud like **AWS, Red Hat**.
- Proficient in troubleshooting skills with proven abilities in resolving complex technical issues.
- Experience with working with ticketing tools like **Jira**.
- Willing to take additional responsibilities to understand **on Premise/legacy.**

Strengths:

- Achievement oriented with excellent people management skills and an ability to manage change with ease.
- Proven Strength in problem solving, analysis.
- Sincere worker and a willing learner, Confident & Optimistic.

Academic Profile:

- **St Martins Engineering College - Dhulapally (JNTUH)- 2019**

Technical Skills:

- **SCM Tools:** GIT.
- **Build tools:** Maven.
- **CI & CD Tool:** Jenkins.
- **Containers & Orchestration:** Docker & Kubernetes.
- **Web and Application Server:** Apache, Tomcat.
- **Monitoring Tool:** CloudWatch.
- **Operating System:** Linux, Windows
- **Configuration Management Tool:** Ansible.
- **Cloud Services:** AWS.

- **Scripting Languages:** Shell Scripting, Yaml.
- **IAS**: Terraform

Professional Experience:

- **Currently Working as DevOps Engineer for APPLITECH SOLUTION Private Limited (BANGALORE) from Dec 2021 to till date**.
- **Kutumbcare Pvt Ltd – Hyderabad from Aug 2019 to Dec 2020**

SKILLS & COMPETENCIES

- CI/CD pipeline development and implementation
- Microservices architecture
- Autoscaling solutions
- Security policy implementation and maintenance
- Backup and disaster recovery
- Monitoring and logging
- Kubernetes cluster management
- Infrastructure as code (IaC)
- Cloud computing platforms (AWS, GCP, Azure)
- Containerization (Docker)
- Configuration management (Ansible, Puppet, Chef)
- Version control systems (Git)
- Scripting languages (Bash, PowerShell)
- Automation and Orchestration (Ansible, Terraform)

Project #3:

Project Name – Essel infra project

Role: AWS and Cloud Engineer

Essel infra has a wide range of applications more than 50 applications hosted on 100 server instances developed in different countries. Continuous support is required to make the applications available to the end-users and also to maintain the Web servers and the App Servers.

Roles & Responsibilities:

- Involved in various phases of Software Development Life Cycle (**SDLC**) as requirement gathering.
- Implemented **agile** methodology throughout the project development lifecycles.
- Implemented end - end pipeline starting from build to deployment to higher environments like **DEV**, **Stage**, **PPE** and Production.
- Creating **Docker** files as per requirement.
- Using **Docker** Images and Containers to achieve **Continuous Delivery** goal.
- We create branches for developers based on requirements in **GitHub**.
- Installing, Configuring and Administering **Jenkins CI** tool on **Linux** machines.
- Analyzing and Resolve conflicts related to merging of source code for **GIT**.
- Experience with container networking on **Docker.**
- Experience with application deployment by using **CI/CD.**
- Expertise in Infrastructure automation tools like **Terraform, Ansible and CloudFormation**
- **Develop** and maintain Kubernetes-based infrastructure as code
- **Develop** and maintain Kubernetes-based monitoring and logging solutions
- **Develop** and maintain Kubernetes-based storage solutions
- **Develop** and maintain Kubernetes-based autoscaling solutions
- **Develop** and maintain Kubernetes-based service mesh solutions
- Implemented the setup for **Master Slave** architecture to improve the Performance of Jenkins.

- Configured and Automated the **Jenkins** build jobs for **continues Integration**.
- **Jenkins** Jobs creations and configure build steps for **CI & CD** in all environments.
- Installed/Configured and Managed **Nexus** Repository.
- Involved in writing the **YAML** script for Ansible Playbooks.
- Implemented a Sonar software quality for testing the code quality.
- Managing Backups of Instances in the form of Snapshots.

Cloud activities:

- Good understanding of cloud service model -IAAS, PAAS, SAAS and deployment models- Private, Public and Hybrid.
- Managing the windows servers hosted in the AWS cloud environment.
- Working on AWS EC2 management like creating instances, creating volumes, taking AMI backups and volume level snapshots.
- Worked on instance root volume increase and creation of new volumes, attaching new volumes to existing instance and resizing existing volumes.
- Creating snapshot of instances using AWS Console.
- Creating Security groups, adding Security groups and requested IP's to existing Security groups to allow inbound and outbound traffic to instances and ELB's.
- Worked on EBS Volume level encryption.
- Worked on instance upgrade like instance type changes and up gradation of volume size.
- Balancer configuration and troubleshooting.
- Creating IAM users and assigning respective policies to the users.
- Configurations of cloudwatch monitoring service.
- S3 bucket creations and adding lifecycle rules.
- Worked on Trusted Advisor for optimizing the AWS environment and reduce cost.
- Worked on Cloud Trail for Security and checking for unauthorized access.
- I have been working closely with a team whose key responsibilities are creating and managing infrastructure for developers, testers and **DB** administrators in a way to accomplish automation.
- Extensively worked on **Jenkins** for continuous integration and for End to End automation for all build and deployments.
- As DevOps engineer in my team I have a responsibility in configuring Jenkins jobs in such a way that fetches source code from **Git** repository.
- Configured Jenkins with **Maven build tool** in generating **war/jar** files and archived them.
- Responsible for maintaining backup and versioning of **war/jar** file using **nexus** Repositories.
- Integrated **Git, Jenkins** and maven in accomplishing continuous integration and configured Jenkins with **Poll SCM** build trigger.
- We are using **Ansible** as primary automation tool in configuring and deploying artifacts to several environments.
- As most of the infrastructure is hosted in **AWS cloud** I'm responsible for creating and managing.
- Worked exclusively on making applications more scalable and highly available system in **AWS (Load balancing).**
- Manage and configure AWS services as per the business needs (**ELB, SNS, EC2, Route53, S3, RDS, Cloud Watch, IAM, VPC, ETC).**
- Creating **snapshots, AMIs, Elastic IPs** and **managing EBS volumes**.
- Created and configured elastic load balancers (ELB)to distribute the traffic
- Used **IAM for creating roles**, users, groups and also implemented MFA to provide additional security to AWS account and its resources.
- **Integrated Amazon Cloud Watch** with Amazon EC2 instances for monitoring the log files and track metrics.

Project #2:

Project Name: GE Healthcare

Role: DevOps and Cloud Engineer

GE-Health Care has a wide range of applications more than 300 applications hosted on 150+ server instances developed in different countries (US, EMEA and ASIA) continuous support is required to make the applications available to the end-users and also to maintain the Web servers and the App Servers. So a separate team of administrators named "web platform "was formed to fulfill the administrative tasks. Need to work with developers closely and host applications on servers in all the lifecycles.

Roles & Responsibilities:

- Supporting day to day activities (Deployments, Service now cases handling, Change Control execution).
- Involved in various phases of Software Development Life Cycle (**SDLC**) as requirement gathering, data modeling, analysis, architecture design & development for the project.
- Implemented end - end pipeline starting from build to deployment to higher environments like **DEV, Stage, PPE** and Production.
- Participated in the Release cycle of the product involved environments like **Dev, QA, UAT** and Production.
- Installing, Configuring and Administering **Jenkins C**I tool on Linux machines.
- Analyzing and Resolve conflicts related to merging of source code for **GIT**.
- Implemented the setup for Master Slave architecture to improve the Performance of Jenkins.
- Configured and Automated the **Jenkins** build jobs for continues Integration.
- Using **Docker** Images and Containers to achieve Continuous Delivery goal.
- Jenkins Jobs creations and configure build steps for **CI & CD** in all environments.
- We create branches for developers based on requirements in **GitHub**.
- Integrate **GitHub** with web hooks to trigger Continuous Integration tools like Jenkins.
- Installed/Configured and Managed **Nexus** Repository.
- Configure **EBS** for **EC2** instances, take **EBS** snapshots and back up into **S3** storage.
- Integrate **SMTP** configuration to trigger an Email post deployment.
- Created and managed several **CRON** jobs for backing up log files and configuration files.
- Managing Amazon Web Services like **EC2, S3 bucket, AMI** and **IAM**.
- Managing application upgrades and Server patches weekly basis.
- Worked on Tickets to solve bugs/tracking with in time and assigning corresponding teams.
- Installation of WebLogic servers in single and multiple machines under single admin server and configure domains in a cluster.
- Creation, Data Source, Users and groups.
- Configuring Virtual hosts in Apache web servers.
- Creation of JDBC connection pools, Data Sources etc. in Weblogic, Glassfish using admin console.
- Configuring JDBC Connection pools, Configuring JMS Servers, queues and topics.
- Install and configure Apache as a proxy server for Tomcat and Jboss servers
- Deploying the applications in Dev, Stage/UAT/QA and Prod environment.
- Expert in deploying different applications like WAR files, Jar files and enterprise application archives (EAR) on WebLogic using various deployment tools.
- Deployed the applications on multiple WebLogic Server instances and maintained Load balancing, high availability and Fail over for the servers.
- Configuring and renew the SSL certificates.
- Attending Command Center Team call for resolving emergency production issue.
- Analyzing Thread dumps and providing solutions to app team.
- Experience on weekly and monthly production planned outages and environment refreshment.

- Troubleshooting and fixing of problems on Application Servers and Web servers.
- Handling SDM and Service Now Tickets for dev and stage Changes.
- Doing load test for the applications whose code is changed in testing environment to get it qualify for production environment.
- Configuring cron jobs for executing schedule tasks.
- Providing 24/7 on call support for production environment.

Project #1:

Project Name: End-to-End CI/CD Pipeline with Dockerized Microservices

Role: Junior DevOps Engineer

Objective: Designed and implemented a CI/CD pipeline to automate the build, testing, artifact management, containerization, and deployment of a microservices-based application on AWS infrastructure

Tools: Git, Jenkins, GitHub, Maven, SonarQube, Nexus, Linux, Docker, Slack (for notifications), Tomcat, AWS (EC2, S3, ECR)

Project Description:

- **Source Code Management**: Set up GitHub repository to store the application's source code and configured Git branching strategies for streamlined development workflows.
- **Build Automation**: Configured Jenkins to integrate with GitHub for automatic build triggers on every code commit. Utilized Maven to compile the Java-based microservices application and package it into a deployable artifact (WAR file).
- **Code Quality Assurance**: Integrated SonarQube with Jenkins to perform static code analysis, ensuring adherence to coding standards and eliminating vulnerabilities. Published SonarQube reports in Jenkins and provided feedback to developers on code quality.
- **Artifact Management**: Configured Nexus as an artifact repository to store and manage built artifacts for version control and reusability.
- **Containerization**: Dockerized the application by creating custom Dockerfiles for each microservice. Built and pushed Docker images to AWS Elastic Container Registry (ECR).
- **Deployment Automation**: Automated deployment of Dockerized microservices onto AWS EC2 instances using Jenkins pipelines. Deployed the application on Apache Tomcat servers running within Docker containers.
- **Monitoring and Notification**: Integrated Slack with Jenkins to send build and deployment status notifications to the team in real time.
- **Hosting Static Assets**: Hosted static files such as configuration files and logs on an AWS S3 bucket for scalability and durability.
- **Linux Administration**: Automated server provisioning and application dependency installation using Linux shell scripts. Continuous Improvement: Iteratively improved pipeline efficiency by identifying bottlenecks and optimizing Jenkins pipelines.
- **Achievements**:
  - Reduced manual intervention by 80% through the implementation of fully automated CI/CD pipelines.
  - Enhanced software quality with static code analysis and early bug detection via SonarQube.
  - Improved artifact management and traceability with Nexus.
  - Deployed Dockerized microservices with minimal downtime, ensuring high availability on AWS infrastructure.
  - Fostered team collaboration and faster issue resolution through real-time Slack notifications.