Cherukuri Karthik

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DevOps Engineer & AWS Cloud

SUMMARY:

Experienced DevOps Engineer dedicated to automation and optimization for 4.1 years. Understands and manages the space between operations and development to quickly deliver code to customers. Has experience with **AWS** cloud, as well as **DevOps** automation developments for Linux systems, brings maturity, enthusiasm and a drive to learn new technologies along with real world experience.

JOB RESPONSIBILITIES:

- Experienced in various SDLC project phases: Requirement/System gathering, Requirement/System Analysis, Functional Specification, Business Logic's Design, Layered Architecture, Test plans, Coding, Code review, Testing, Performance tuning, Documentation, Implementation and Maintenance.
- Participate in an agile development process from analysis of detailed or high-level product requirements through design and quick test development, execution and resultsreporting.
- Experience in deploying applications in webserver, application server and database server. Installation and configuration of Apache Tomcat /Web logic on Linux.
- Setting and maintaining **RHEL** Linux servers in Production and Lab Environments.
- Remote administration through Putty, SSH.
- Installing and Configuration of Open SSH.
- Configuring the private repository for accessing the packages with **YUM.**
- Creating and managing user accounts, groups and access levels using SUDO.
- Experience on file system and disk management and managing disk quotas.
- Scheduling/Controlling of jobs using Cron.
- Hands of experience in bug tracking tool Atlassian JIRA.
- Expertise in creating and maintaining the infrastructure on AWS using services such asEC2 (EC2-instances),AMI, IAM, ELB, EBS, RDS, S3, SNS, auto-scaling and Route 53, cloud watch.
- Familiar in How to Setup **Amazon Web Services** EC2 Instance with Apache.
- Familiar in Amazon S3 - To Create Buckets, Upload Data, Set Permissions.
- Created and maintained **AWS Virtual private cloud (VPC)** resources such as subnets,Internet Gateways, Route Tables and access control lists.
- Created alarms in Cloud watch service for monitoring the servers performance, CPU Utilization, disk usage etc.

- Proficient with different **AWS** services, like creation of **EC2** Instances and cost effective management of resources by configuring **Auto scaling**, back-up of volumes attached to critical servers by taking snapshot on time-to time, monitoring of different services by using **cloud-watch**.
- Setup the **cloud-watch** agent in the applications and configure the health checks, logs accordingly using **Cloud watch service.**
- Experienced in administering **AWS** user identities, **IAM** permissions to various
- **AWS** resources, applying policies to users and roles.
- Created MySQL **RDS** instances for database layer in multi-AZ deployment for high availability, for performance improvement created read replicas.
- Created Autoscaling groups and configure the elastic load balancer.
- Experience on using Version Control Management tool **GIT**.
- Install **GIT** and configure the global credentials.
- Created the GIT Hub repository and push the changes to the GIT Hub.
- Created branching, merging and tagging concepts in **GIT.**
- Created the branches and labels and applied the tags to the Branches.
- Propagating the changes from one branch to another Branch.
- Perform all SCM related activities including integrations/merges, rebase, cherry-pickbranching strategies and tagging for parallel development as well as official releases.
- Creating repositories, branches, tags in **GIT** and assist the developers to fix mergingissues. Created hooks and managed permissions on the branches for **GIT.**
- Created project baselines, branching strategies, merging and taking regular backups ofthe source code.
- Developed Automated Build and deploy Process Using **MAVEN.**

- Worked on **JENKINS** by creating jobs, done build and deployment using the same.Installation and configuring the Builds for the Application.
- Worked on **JENKINS** backup daily and restored the configurations if required.
- Created fully automated CI /CD infrastructure and processes for multiple projects.
- Created Webhooks between **Jenkins** and **GitHub/Git Lab**.
- Performed all the operation in the Jenkins like master slave, email notifications,upstream downstream configurations, crontab and integrated other tools if required.
- Wrote the automated build and deployment shell scripts and executed in execute shellin **Jenkins.**
- Working with Development and Testing Teams to establish a build schedule, executethe builds and troubleshoot build failures, if any.
- Configured and maintained **Jenkins** to implement the CI process and integrated the toolwith Ant and Maven to schedule the builds.
- Integrated SonarQube to Check the Quality of the code.
- Proficient in deploying the War/Jar/Ear applications on target managed servers.
- Monitored the automated build and continuous integration process to ensure correct build execution and facilitate resolution of build/release failures
- Installation and configuration of **DOCKER** in Linux machines with preconfigured images.
- Implemented containerization using **DOCKER** and its components like Docker Engine, Docker Hub, Machine, Docker-Compose, Docker Registry and Docker Repository.
- Writing **Docker** files for creating customized **Docker** images required for different environments.
- Created **DOCKER COMPOSE** files as per requirements of different teams.
- Experience with container networking on **DOCKER.**
- Expertise in implementing Configuration Management Tools like **ANSIBLE**.
- Have worked with configuration management tool, **ANSIBLE** for cloud provisioning,application deployment, intra-service orchestration and monitoring of various servers across various environments.

- Involved in implementation of **ANSIBLE** on in-house as well as public cloud setups.
- Expertise in Automating all applications using **ANSIBLE** and Writing custom Ansibleplaybooks.
- Leading the automation of implementation and configuration work through **ANSIBLE.**
- Experience in installing and configuring the **K8S** and **K8S** cluster lifecycle usingstandard operating procedures ideally codified with a git-ops based workflow.

- Deploy the applications using KubeCtl by writing the YML files.
- Implement an auto-scaling system for our **Kubernetes** nodes
- Using **Kubernetes** services, we will expose the services and routing the traffic by usingingress.
- Using multiple **Kubernetes** object, we can write the YML file and deployed into **AKS**
- as per the request.
- Experience with monitoring tools like **Grafana.**

EDUCATIONAL DETAILS:

- **M.Tech** (Digital Electronics & Communication Systems) from JNTUA University, Anantapur.

TECHNICAL SKILLS:

Cloud Services	**AWS Cloud**
SCM tools	GIT and **Azure DevOps**
Operating Systems	Redhat Linux (RHEL)
Basic Coding Skills	YML Scripting and basics of PowerShell
Network Protocols	SSH, WINSCP
Software Tools	GIT, Jenkins, Ansible, Terraform, SonarQube, Docker, Azure Devops and Kubernetes(**K8S**)
Ticketing & Tracking Tool	JIRA
Monitoring Tools	Grafana
Scripting	Shell Script Bash
Web & Application Servers	Apache Tomcat

EXPERIENCE SUMMARY:

- Working as **DevOps Engineer, AWS Cloud** at **Lince soft solutions Pvt Ltd Hyderabad** since JULY-**2018** to till date.

PROJECT DETAILS:

PROJECT 1:

Client   : Corporate Internet Group
Role   : DevOps-AWS Engineer
Duration   : September-2019 to till date
Environment   : Git, Maven, Jenkins, Docker, AWS, Docker, Kubernetes,Apache Tomcat, JIRA.

DESCRIPTION:

- The Corporate Internet Group (CIG) is a Chase organization that supports public Internet sites.The group consists of senior business strategists, developers, infrastructure and architecture specialists, usability professionals, interactive designers, editors, project support and operations staff. CIG works closely with all lines of business including: Auto Lending, Business Banking, Card Services, Commercial Banking, Investing, Private Bank, Private Client Services, Retail and Treasury. CIG's goal is to provide consistent, integrated internet applications that are intuitive, dependable and easy to use for all customers.

RESPONSIBILITIES:

- Create the automated build and deployment process for application, re- engineering setup for better user experience, and leading up to building a continuous integration system for all our products.
- Manage Code Repository in **GIT** and improved practices of branching and code merging to custom needs of development team.
- Troubleshoot the build issue during the **Jenkins** build process.
- Deployed and orchestrated the application with **Kubernetes**.
- Implemented testing environment for Kubernetes andadministrated the **Kubernetes** cluster.
- Created Docker files and build images and push to the Dockerprivate registry.
- Set up the local development environments through Dockercontainers for new developers.
- Developing build and deployment pipelines using Jenkins, Mavenfor Java applications.
- Experience in build management and continuous integration tools (Jenkins).
- Designed and built cloud service models including Infrastructure-as-a-Service (**IAAS**) Driving industry best practice implementation around CI and infrastructure management.
- Administered version control system that included branching and merging Responsible for creating and developing the build process environment.
- Installing, configuring and administering Jenkins CI tool on Linux machines.
- Well-versed with Amazon Web Services (AWS) provisioning and good knowledge ofAWS services like EC2, Elastic Load-balancers, ALB, S3, CloudFront, EBS, VPC, Route53, CloudWatch.
- Securing VPC using security groups, Network Access Control List and Routing Tables. Hands-on Experience in configuration of Network architecture on AWS with **VPC, Subnets, Internet gateway, NAT, Route table.**
- Defined AWS Security Groups, which acted as virtual firewalls that controlled thetraffic, allowed reaching one or more AWS EC2 instances.
- Set up andmaintained Development, QA, Pre-Production, and Productionenvironments.

PROJECT2:

Client   : CMS (Courier Management Services)
Duration   : May-2018 to July-2019
Designation   : DevOps Engineer
Environment   : Git, Jenkins, Maven, Apache Tomcat, Ansible, Nagios,Linux.

DESCRIPTION:

- CMS is used to transfer the objects from one place to another by giving unique Id to object as "Consignment Number". We save Consignment number with details like Customer Name, location, Service, Mode of transfer, weight & rate. Cost for the Consignment will be calculatedon different basis like based on distance, based on weight & based on Customer. Managementwill give the login to employee as Admin, Operations, Customer, and Employee &Agent, basedon the Login they got permissions to do operations. Locations will be divided as a "Corporate""Hub" and "Branch". They can transfer Consignment Number form Hub to Hub, this operationcalled as "Manifest" and Hub to Branch as "Branch Manifest" and Branch to Hub as an "OpenManifest". If they transfer Consignment Number to a non-located place it's called as a "Forwarding to Agent".

RESPONSIBILITIES:

- Configuring jobs, master slaves and managing using in **Jenkins.**
- Responsible for maintaining backups in Jenkins.
- We use GitHub to keep all our source code and automation scripts.
- Built Continuous Integration Environment using Jenkins.
- Configured Git with Jenkins and schedule jobs using POLL SCM build trigger.
- Developed and maintained the continuous integration and deployment systems using Jenkins, Maven, Nexus, **Ansible**.
- Installing, Configured and management in **Ansible** Centralized Server and creatingthe playbooks to support various middleware application servers, and involved in configuring the **Ansible** tower as a configuration management tool to automate repetitive tasks.
- Automated configuration management and deployments using **Ansible** playbooks and **Yaml** for resource declaration. And creating roles and updating Playbooks to provision servers by using **Ansible**.
- Monitoring **Jenkins** jobs and contact team if progress is not evident on fixing stability issues.
- Developing build and deployment pipelines using Jenkins, Maven for Java applications.
- Administered version control system that included branching and merging Responsible for creating and developing the build process environment.
- Set up and maintained Development, QA, Pre-Production, and Production environments.

DECLARATION :

- I hereby declare that the information given above is true to the best of my knowledge.

(Cherukuri Karthik)