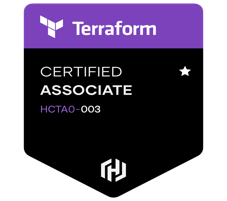
**G.N. RAMESH**

**AWS DevOps Engineer/Cloud Engineer**

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**Professional Summary:**

Over 9 years of IT Professional Experience as Linux and System administration with a major focus on **DevOps**, **Cloud** technologies, **Release Management**, **Continuous Integrations/Deployment (CI-CD)**, **Configuration Management**, **Amazon Web Services**, Source Code Management, Maintenance and troubleshooting Technical and Performance issues in all stages of Software Development Life Cycle (SDLC).

* Provisioned highly available **AWS EC2** Instances using **Terraform** and **Cloud Formation** templates along with AWS **VPC setup**, AWS **Auto Scaling** and **Load Balancing**.
* Experience in **Amazon Cloud Services** (AWS) and its features (AWS EC2, VPC, AMI, **ELB**, Lambda, SNS, SQS, RDS, Lambda, **Auto Scaling**, CloudFormation, S3, **RDS** with Multi-AZ replication, **Cloud Front** and Route 53 with latency-based routing policy and **Cloud Watch Monitoring** Management).
* Implemented **AWS Lambda** functions to run scripts in response to event in **Amazon RDS** or **S3** bucket or to **HTTP** requests using Amazon API Gateway.
* Experience in using **CloudFormation** template for reliable **provisioning** of initial infrastructure (stacks) like **IAM** roles & policies, **S3** buckets and bucket backups in AWS.
* Implemented Microservices, application development and migration using AWS services such as **Elastic Container Registry** (ECR), **AWS Kubernetes Service** (EKS) and Kubernetes **API** to run workloads on EKS clusters.
* Implemented serverless architecture using AWS API Gateway, Lambda and RDS and deployed AWS Lambda Code using AWS Code pipelines.
* Experience in provisioning IaC using **AWS Cloud Formation** templates to create custom sized **VPC, Subnets, NAT** to ensure successful **deployment** of **Web applications**and**database templates**.
* Strong exposure in utilizing **Jenkins**, **GitHub** **Actions** as a CI/CD tool and built the code integration, code delivery and release pipelines for End-to-End automation for all build and deployments implementing CI/CD for database using Jenkins in Groovy.
* Expert in an **Orchestration** & **Migration** of **CI/CD** processes using **CloudFormation** and **Terraform** **Templates & containerization** of **Infrastructure** using **Docker** and pushing the images to **ECR**.
* Automated setting up server infrastructure for the **DevOps** services using **Ansible** and Shell scripts.
* Expertise working as **AWS** DevOps engineer/Build and release engineer in field of release automation for java and dot net technologies to achieve **continuous integration** and **continuous delivery** (CI CD).
* Experience with Amazon S3, AWS IAM, AWS/Lambda/DynamoDB/Cognito, AWS **API Gateway**.
* Created **Jenkins** pipeline to build the images and then pushed those images to AWS ECR that is later consumed by the **AWS ECS** and **AWS EKS**-**Kubernetes** cluster to do the rolling deployments by consuming the images.
* Worked on Container management using **Docker** by writing Docker files to break up **monolithic** app into microservices by setting up the automated build on **Docker HUB** and configured **Kubernetes**.
* Experience in Deploying Applications into Kubernetes using GitOps tools (Argo CD).
* Deployment into Kubernets cluster directly from Github using ArgoCD.
* Experience in Building and Deploying application code using CLI of **Kubernetes** like **Kubectl**, **Kubelet** and **Kubeadm**. Managed **K8s** using Helm and created reproducible builds of applications.
* Worked on **AWS EBS**, storage service **AWS S3** (buckets creation, folder navigation and property

changes) and data migration. Experienced in **Ruby**, **Python** and **shell scripting** for automating tasks.

* Provided strong knowledge of Infrastructure design and implementations with solid background in various IT Systems and technologies including **Storage**, **Networking**, **Database**, **Middleware**, **VMware**, etc.
* Automated CI/Cd pipelines using **Jenkins**, integrating **JFrog** tools for seamless artifact management.
* Managed repositories and permissions, including **branching**, **tagging**, **merging** and **maintaining** versions using **SCM** tools such as **GIT** and **GitHub.**
* Installed and Managed **Jenkins** and **Nexus** for CI and sharing artifacts respectively within the company.
* Knowledge on various components like **Docker** **Engine**, Hub, **Machine**, **Compose** and **Docker** **Registry**.

**Education:** A)Bachelor of Technology in Electronics and Communication, India - 2012.

B) Masters in computer science from University of Central Missouri, MO, USA - 2016.

**Certification:**

1. [AWS Certified Solution Architect Associate.](https://www.credly.com/badges/6e641c1b-0c7b-4cd2-a3f4-0ddb529fc2f2)
2. [Terraform Certified Associate (HCTAO-C003)](https://www.credly.com/badges/52510a77-11bd-4b84-88be-f4c7946bcd25)
3. [Certified Kubernetes Administrator (CKA)](https://www.credly.com/badges/7f8c1eb8-dc08-495f-9ded-56143864ca82)

**Technical Skills:**

|  |  |
| --- | --- |
| Operating Systems | Windows, Linux, Unix. |
| **Source Code Management** | Bitbucket, GitHub, GIT, Gitlab. |
| AWS Services | EC2, EFS, EBS, VPC, RDS, S3, Glacier, IAM, Kinesis, Cloud Front, CloudWatch, Cloud Trail, Cloud Formation, DynamoDB, Lambda, Route53, SNS, SQS, API Gateway, Code Pipeline, Code Build, Elastic Search, Code Deploy, EKS, ECS, KMS etc. |
| DevOps Tools: | Jenkins, Bugzilla, Splunk, Nagios, Argo CD, Prometheus, Grafana. |
| Configuration Management | Ansible, Terraform, CloudFormation, ARM Templates |
| Build Tools | Maven, Gradle |
| Languages | Shell scripting, Python, Java |
| Tracking Tools | Jira, Remedy, and Clear Quest. |
| Repositories | Nexus, Jfrog artifactory |
| Web servers | Apache Tomcat, WebLogic, Oracle Application Server, Nginx and Redis. |
| RDBMS | Oracle, SQL Server, MySQL, MS Access DB2, DynamoDB, NoSQL, RDS, RedShift, PostgreSQL. |
| Cloud Technologies | Amazon Web Services (AWS) |
| Containerization Tools | Docker, Kubernetes |
| Security Scan Tools | Fortify, White source. |

**Professional Experience:**

**KPMG - Dallas, TX May 2020 – Till Date**

**AWS DevOps Engineer**

**Responsibilities:**

* Designed cost effective and fault tolerant systems using **EC2** instances, Amazon Machine Images (**AMI**), Maintained roles and groups using AWS Identity Access Management (**IAM**), also maintained user accounts, **RDS**, Route **53**, **VPC**, **RDB**, **Dynamo DB**, **Code Commit**, **SQS** & **SNS** services in **AWS Cloud**. And have experience in creating alarms and notifications for EC2 instances using Cloud Watch.
* Provided highly durable and available data by using **S3** data store, **versioning**, **lifecycle policies**, and create **AMIs** for mission-critical production servers for backup.
* Integrated **automated** tests in continuous integration like **GitHub actions** for nightly consignment run of scripts.
* Written **Terraform** **scripts** for AWS **Infrastructure** as a code using **Terraform** to build staging and production environments.
* Implemented **Kubernetes** to **orchestrate** the deployment, scaling and management of **Docker** **Containers**.
* Implemented CI/CD pipelines using Jenkins and **JFrog** for managing binary repositories and dependencies improving build times and reliability.
* Collaborated with development teams to troubleshoot and resolve issues related to **JFrog** artifact storage and deployment.
* Used **Jenkin** **pipelines** to drive all **micro services** builds out to **Docker** **registry** and then deployed to **Kubernetes**, Created Pods and managed using Kubernetes.
* Implemented automated deployment to Dev, QA and production environment using **Ansible** to manage all existing servers and automate build/configuration of new servers using Ansible **Playbook**.
* Created private cloud using **Kubernetes** that **supports** **DEV**, **TEST**, and **PROD** environments.
* Created **Terraform** modules to create instances in AWS & automated process of creation of resources is AWS using terraform for automating infrastructure to deploy web applications, **setup DynamoDB**, **ECS** and **EKS** cluster.
* Implemented and maintained the **monitoring** and **alerting** of **production** and corporate servers/storage using AWS **CloudWatch**/ **Splunk**.
* Used **Splunk** for monitoring and analyzing log information. Experienced in Troubleshooting. Splunk search, quotas, monitor Inputs, WMI Issues, Splunk crash logs and Alert scripts.
* Extensively worked with **Jenkins APIs** to know various things like build **status**, count of builds, GIT commit version used by Jenkins **builds etc**. using Groovy.
* Worked on **Container** **management** by using Docker and by writing **Docker** **files** and set up the automated build on Docker HUB and installed and configured Kubernetes.
* Designed and Developed AWS Cloud infrastructure utilizing **Ansible** with **AWS CloudFormation** and Jenkins for Continuous Integration with high availability and secure multi-zones and automated end-to-end transit hub connectivity resource deployment in AWS via **Terraform**.
* Implemented serverless architecture using AWS API Gateway, Lambda and RDS and deployed AWS Lambda Code using AWS Code pipelines.
* Created automated pipelines using **AWS Code Pipeline** and Jenkins Pipeline to deploy Docker containers in AWS ECS using services like **Cloud Formation**, Code Build, Code Deploy, **S3** and **Ansible**.
* Worked with Terraform to create AWS components like **EC2, IAM, VPC, ELB, Security groups**.

**7-Eleven - Irving, TX Aug 2018 – May 2020**

**Sr. DevOps Engineer**

**Responsibilities:**

* Responsible to Manage **IAM** **Policies**, providing access to different AWS resources, **design** and refine the **workflows** used to grant access.
* Deployed and configured **Elasticsearch**, **Logstash**, and **Kibana** (ELK) for **log** **analytics** and application **monitoring** in integration with **AWS** **Lambda** and **CloudWatch**. Then store those logs and metric into an **S3** bucket using Lambda function.
* Configured **SAML** authentication to **login** to our AWS accounts using single sign on and deployed **cross account roles** using AWS **CloudFormation** **stack** sets across different accounts from **master** account.
* Worked on developing serverless applications using Lambda and API Gateway with DynamoDB and deployed using the serverless template from Github workflow.
* **Implemented** **CI** and **CD** for application using **Jenkins** as CI tool for integrating different tools like **GitHub**, **Maven**, **Junit**, **Nexus** **Artifactory** and used **Ansible** as configuration Management tool for continuous deployment into **Testing**, **Staging** and **Production** environment.
* Automated the cloud deployments using python (Boto) and **AWS Cloud Formation Templates**.
* Created Docker Images using a **Docker** file, worked on **Docker** **container** **snapshots**, removing images and managing **Docker** **volumes**.
* Installed **Docker** **Registry** for local upload and download of **Docker** **images** and from Docker Hub and created **Docker files** to **automate** the process of capturing and using the images.
* Create develop and test environments of different applications by provisioning **Kubernetes** clusters on AWS using **Docker**, **Ansible** and **Terraform**.
* Configured the **Kubernetes** provider with **Terraform** which is used to interact with resources supported by **Kubernetes** to create several services such as **Deployments**, **Services**, **Ingress** rules, **Config** Map, **Secrets** etc., in different **Namespaces**.
* Implemented a **CI/CD** pipeline involving **Jenkins** & **GIT**. Migrated **non-containerized** application to **containerized** application. Used **Terraform** scripts instead of manual/CLI. Managed configuration using **ansible** playbooks. Managed user access with **IAM**, created various groups and used various AWS policies.
* Followed **agile** **methodology** and involved in daily **SCRUM** meetings, sprint planning, showcases and actively involved in **Sprint** **retrospective to continuous improvement.**
* Built and **configured** a new cloud **infrastructure** **environment** and troubleshooting **AWS** related issues. Leveraged AWS cloud services such as **EC2**, auto-scaling and **VPC**.
* Created a monitoring dashboard in **Grafana** that displays key metrics such as **CPU** usage, memory consumption, **IOPS** on all **production** machines.
* Created **monitoring** system that alerted developers when a **server** was running **low** on **resources** or had stopped responding completely.
* Worked closely with developers to **troubleshoot** and resolve issues in the production environment.
* Created automated pipelines in AWS Code Pipeline to deploy Docker containers in AWS **ECS** using services like **CloudFormation**, **Code Build**, **Code Deploy**, S3 and Ansible.
* Worked on **JIRA** for **defect/issues** logging & tracking and documented all my work using **CONFLUENCE**.
* Amazon **IAM** service enabled to grant **permissions** and resources to users. **Managed** roles and permissions of users with the help of **AWS IAM**.
* Built S3 buckets and managed policies for **S3** **buckets** and used S3 bucket and **Glacier** for storage and backup on **AWS**.

**DXC Technology - Roseville, CA Nov 2016 – Jul 2018**

**AWS DevOps Engineer**

**Responsibilities:**

* Identified, analyzed, coordinated, and resolved **environment** and **infrastructure** to ensure smooth running application.
* Involving in debugging issues, resolving functional issues and provide **bug** free software releases to end customers.
* Improve speed, efficiency and scalability of the continuous integration environment, automating wherever possible using **Python**, Ruby, Shell and PowerShell Scripts.
* Assigned responsibilities of developing functional testing **automation scripts** and conducting defect root cause analysis.
* Working on **AWS Auto Scaling** for providing high availability of applications and **EC2** instances based on the load of applications by using **AWS Cloud Watcher.**
* Integrated **Amazon Cloud Watch** with **Amazon EC2 instances** for monitoring the log files, store them and **track metrics**.
* Experience in **IaaS**managing **Amazon** **Web Services** (AWS) infrastructure with automation and configuration management i.e., Ansible.
* Experience in Configuration Management Tools like **Ansible** for automation of infrastructure related components and applications like **Tomcat/Apache/Nagios/LDAP**, Nexus, Jenkins, SSH and Yum repo server configurations.
* Implemented a **load balanced**, highly **available**, **fault** **tolerant**, auto-scaling **Kubernetes** AWS infrastructure and microservice container **orchestration**.
* Developed Ansible Playbooks to install and configure **Apache** **Tomcat**, Jenkins, Run deck and deployment automation.
* Installed **Docker** **Registry** for local upload and download of **Docker** **images** and even from Docker hub.
* Installed **Ansible server** to manage configurations, applications, packages, services and automate installation process for webservers.
* Implementation of **Ansible based configuration** management system for Linux machines.
* Working experience **on Ansible in Production environment** over 60 servers. Working on version control system like GIT Stash.
* Manage infrastructure-as-code on AWS. We use EC2, ECS, RDS, VPC, S3, **CloudFront**, API **Gateway**, ELB, Lambda.
* Developed and improved Performance by writing automated Python scripts using **AWS Python SDK Boto3** to configure, manage, deploy and automate most of the Amazon Web services.
* Created AWS resources templates using **Cloud Formation**.
* Working experience with hosting department for **Migrating** Cloud from Private cloud to public cloud.
* Implemented locking mechanism for **terraform** state file using **DynamoDB.**
* Managed servers on the **Amazon Web Services** (AWS) platform instances using Configuration management tools like Ansible.
* Primarily used **shell scripting** to code tasks that connect various AWS resources.
* Setup and upgrade database servers and replication environments (Maria DB and MongoDB).
* Worked with **Docker Trusted Registry** as repository for our Docker images and worked with Docker container networks.
* Performed the **monitoring** and **alerting** of **production** and corporate servers/storage using AWS **CloudWatch.**

**Travelport – Parsippany, New Jersey Jan 2016 – Oct 2016**

**AWS DevOps Engineer**

**Responsibilities:**

* Identified, analyzed, coordinated, and resolved environment and infrastructure to ensure **smooth** running of applications in all **environments**.
* Working on process improvements and **automate** the build and Deploy operations.
* Worked with several AWS services like **EC2, EBS, S3, VPC**, Cloud Formation and Cloud Watch.
* Responsible for creating on-demand EC2 instances.
* Creating Custom **AMI’s** and AMI tags, modified **AMI** permissions.
* Working with Security Groups, configuring **Inbound /Outbound** rules, creating, and **importing** Key Pairs.
* **Developed** an **automated** deployment tool for dev, QA and **production** environments using Ansible Allows new services to be deployed and released simply by developers including an **Ansible** **playbook**.
* Created **automation** and **deployment** templates for Relational and NOSQL databases (standalone and RDS), including **Oracle**, **SQL** Server, **MongoDB** and **MariaDB** in AWS.
* Integrated **Bitbucket** with **JIRA** for transition JIRA issues from within Bitbucket Server and monitored the JIRA issues in Bitbucket Server.
* Used **AWS S3** service as Build Artifact repository to create release-based buckets to store various modules/branch-based artifact storage.
* Setup various **jobs** in the **Jenkins** for the commit-based builds as well as nightly builds.
* Created **Kiki** pages and educated the team about the **automation** and branching strategies to be followed.
* Implementing new projects builds framework using **Jenkins** & **Maven** as build framework tools.
* Implementing a Continuous Delivery framework using **Jenkins**, **Chef**, **Maven** and **Nexus** in Linux environment.
* Backup files and archive files in **Glacier**.
* Written Several **Chef cookbooks** from scratch consisting of recipes that can Provision several pre-prod environments consisting of **WebLogic** domain creation, Deployment automation, instance mirroring, and several proprietary middleware installations.
* Written chef recipes to perform middleware binary Installation and Configuration tasks involving JDK, Tomcat, WebLogic binaries installation.
* Established CMRM Best practices, reviewed **SCM** plans for each team.
* Configuring SCM tools for project from scratch for third party products.
* Worked with various custom resources, created roles & environments and using chef handlers for various auto kickoff requirement jobs.
* Written Unit test cases for **chef recipe** testing using test kitchen, food critic etc.
* Setting up chef repo’s (local & remote) working with both hosted and standalone server versions.
* Worked with **Docker** Trusted Registry as repository for our docker images and worked with Docker container networks.
* Utilizes Several **Docker** best practices to create base images from scratch and to create clear, readable and maintainable clean **docker files**.
* Improved the productivity and reduced the time utilized for project **deliverables** by making improvements in the build and release processes.
* **Managed** **Release** **issues** and risks, escalating to the appropriate levels as needed.

**AXA Insurance – Hyderabad, India Jan 2014 – Dec 2014**

**DevOps / Build and Release Engineer**

**Responsibilities:**

* Create continuous integration/deployment with Application Release Automation by integrating and improving client's existing infrastructure and build pipelines, largely aiming for autonomous automation when possible.
* Migrating a production infrastructure into an Amazon Web Services utilizing AWS Cloud-Formation, **Code Deploy, EBS**, and Ops Works.
* Managed Ubuntu Linux and Windows virtual servers on **AWS EC2**, Used GAM to perform bulk Linux command line administration to Google Apps.
* Expertise in Amazon AWS Cloud Administration which includes services: EC2, S3, EBS, VPC, ELB, **Route 53**, **Auto scaling**, Security Groups, **Redshift**, and Cloud Formation.
* Installed the application on AWS EC2 AMI Instances and configured the storage on S3 Buckets.
* Also has hands on experience on working with AWS IAM to create new accounts, roles and groups.
* Configuring the Docker containers and creating **Docker** files for different environments.
* Implemented and designed AWS virtual servers by **puppet** to ensure deployment of web applications.
* Written several Docker files to create tomcat along with required version of **JDK** container images.
* Containerized the Docker services like **SSH** daemon service and familiar with several Docker command line utilities.
* Primarily used **Ruby** for **chef** cookbooks, shell scripting to code tasks that connect various AWS resources.
* Developed processes, tools, automation for **Jenkins** based software for build system and delivering SW Builds, Managed build results in Jenkins and deployed using workflows.
* Installed and configured Jenkins for **Automating Deployments** and providing an automation solution.
* Used Jenkins for continuous deployment and integration of the build and release process.
* Managed and Performed **SCM** related work for company’s website. The project involved working on multiple environments for QA and Production.
* Redesigned Release management process and build scripts written in Bash.
* Developed build and deployment scripts using **MAVEN** as build tools in Jenkins to move from one environment to other environments.
* Maintained and administered GIT source code tool, Created Branches, Labels and performed merges in Stash and **GIT**.
* Involved in migration from **SVN** to **GIT** repos and worked with Linux sys admins for the same.
* Created cookbooks for **OpenStack** deployments and bug fixes with Chef.
* Debug and resolve **Pre-Post** OpenStack deployment failures.
* Written Unit test cases for **chef** recipe testing using test kitchen, food critic etc.
* Setting up chef repo’s (local & remote) working with both hosted and standalone server versions
* Created and modified HTML, PHP, jQuery, JavaScript, web pages, also Writing restful APIs and Http Server in Node.js
* Setup and upgrade database servers and replication environments (PostgreSQL, Maria DB, and MongoDB).
* Managed a **PaaS** for deployments using Docker which reduced considerably deployment risks.
* Expertise in marathon in binding volumes to applications and running databases like MYSQL and **PostgreSQL**.

**Hewlett Packard – Bangalore, India Apr 2012 – Dec 2013**

**Build and Release Engineer**

**Responsibilities:**

* Developed build using **ANT** and **MAVEN** as build tools and used CI tools to kick off the builds move from one environment to other environments.
* Implemented tools for software builds, patch creation, source control, and release tracking and reporting on **UNIX** platform.
* Used Jenkins to integrate different tools and technologies to **automate** build and deployment process.
* Performed clean builds as per the schedule published for a given releases.
* Perform Builds in Development and Testing environments where **ANT Scripts** are used to generate build packages for Development Environments and Build Management tool called Continuum is used for placing **Maven** **Snapshot** builds.
* Created Automated Deployment using Jenkins.
* Responsible for Continuous Integration environments like Jenkins, Nexus, Sonar.
* Integrated **ANT** into Jenkins to automate the code checkout process.
* Preparing Run Books for On-Call to resolve monitoring alerts.
* Setup the **Hudson** as continuous Integration tool to integrate the Java project.
* Written **Python** and **Bash** scripts to perform deploys dynamic content to tomcat Webserver and WebSphere App Servers.
* Familiar and experienced with **Agile** Scrum development.
* Worked on and run agile projects for a DevOps team to help deliver critical functionality to a cloud-based service.
* Installed and configured **Jenkins** for Automating Deployments and providing a complete automation solution.
* Responsible for maintaining build scripts and checking build status. Maintained and modified scripts and documented process for build.
* Created **Maven**, **Perl** & **UNIX** scripts for build and Release activities in QA, Staging and Production environments.
* Created Branches, Labels and performed Merges in Stash and GIT and proposed and implemented branching strategy suitable for Agile development in Subversion.
* Proposed different branching strategies for **SVN** Subversion to support the parallel development for various projects.
* Involved in branching and merging of code.
* Administered Build Forge for automated build and deploy activities.
* Labeling activities in **TFS** once deployment is done.
* Enforced development policies using Subversion hooks and other metadata.
* Wrote **ANT** Scripts to automate the build process.
* Installed and Configured **Nexus** to manage the artifacts in different Repositories.
* Deployed **JAR, WAR & EAR** artifacts into the WebLogic servers and Apache servers.
* Deployed Java/J2EE applications on to Apache Tomcat server and configured it to host the websites.
* Exposure to administration of Internet Information Systems (IIS) Web Servers, application servers.
* Resolved update, merge and password authentication issues in Bamboo and **JIRA**.
* Integrated Junit, Find Bugs, Check Style code analysis and testing during the build.
* Experienced in configuring and troubleshooting **TCP/IP** network services.
* Managed the entire Release Communication and Co-ordination Process.