**Mamatha Reddy**

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# DevOps/Cloud Engineer

**Professional Summary:**

A Cloud enthusiastic team player having around **7+ years of** Experience in IT industry as a **DevOps Engineer** with proven expertise involving cloud computing platforms like **Azure, Amazon Web Services (AWS),** and **Google Cloud (GCP).**

* Expertise in **Azure** Configuration, worked on Azure web application, App services, Azure storage, Azure SQL Database, Virtual Machines, Fabric controller, **Azure AD, Azure search, and Notification hub.**
* Experience in Windows **Azure Services** like **PaaS, IaaS** and worked on storages like Blob (Page and Block), Sql Azure. Well experienced in deployment & configuration management and Virtualization.
* Experience in setting up a **GCP Firewall** rules to allow or deny traffic to and from the VM's instances based on specified configuration and used **GCP** cloud CDN (content delivery network) to deliver content from **GCP cache** locations drastically improving user experience and latency.
* Expertise on experience with an in-depth level of understanding in the strategy and practical implementation of **AWS** cloud-specific technologies including **Elastic Compute**

**Cloud** (**EC2**), **Simple Storage Services(S3**), **Route 53**, **CloudFormation**, **Elastic IPs**, **Virtual Private Cloud (VPC**), **RDS** and **Cloud Watch**.

* Supported **AWS Cloud** environment with 500+ **AWS instances** and configured **Elastic IP & Elastic Storage** and experience working on implemented security groups.
* Extensively involved in **infrastructure as code,** execution plans, resource graph and change automation using **Terraform** and Managed **AWS** infrastructure as code using **Terraform.**
* Expertise in creating **Kubernetes cluster** with **cloud formation templates** and deploy them in **AWS** environment and **monitoring** the health of pods using **Helm Charts.**
* Implemented **Ansible** for configuring and managing multi-node configuration management over **SSH** and PowerShell. Worked in **DevOps** group running Jenkins in a **Docke**r container with **EC2** slaves in Amazon AWS Cloud configuration.
* Experience in working with container-based deployments using **Docker, Docker images, Docker file, Docker Hub, Docker Compose** and **Docker registry,** Used **Docker-Swarm** to maintain the cluster of containers.
* Extensive experience using **MAVEN and ANT** as build tools for the building of deployable artifacts (jar, war & ear) from source code.
* Experience with Configuration Management automation tool **Ansible** and has worked on integrating **Ansible YAML Scripts**.
* Implemented CI/CD pipelines by integrating tools like **Git, Maven, Jenkins, Nexus, and Chef** etc.
* Experience in working on version control systems like GIT and subversion and used source code management client tools like Visual **SVN, GIT BASH, GIT HUB, GIT LAB, Bitbucket** and other command line applications.
* Excellent hands-on experience working with monitoring tools such as Nagios, Splunk, Grafana. Worked with Nagios and Splunk for load balancing, integrating, monitoring, and checking the health of applications.
* Experience in setting up and managing **ELK (Elastic Search, Log stash & Kibana)** stack to collect, search. Analyzed logfiles across servers, log monitoring and created geo-mapping visualizations using **Kibana** in integration with **AWS Cloud watch** and **Lambda**.
* Hands on experience in using **JIRA** as bug tracking system. Configured various workflows, customizations and plug-ins for **JIRA** bug/issue tracker and integration of **Jenkins** with **Jira/GitHub** to track change requests, bug fixes, manage tickets for corresponding **Sprints**.
* Experience in scripting languages like **Python, Ruby, Perl, Shell, Bash** and familiar with storage, Networking, **PowerShell** commands. Experienced in creating automated **PowerShell Scripts** for web app deployment.
* Strong experience in different phases of **Software Development Life Cycle (SDLC)** including analysis, design, implementation, and testing.

**Professional Skills:**

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| --- | --- |
| **CI/CD Tools** | Bamboo, Hudson/Jenkins, Team city, Gitlab |
| **Cloud Tools** | AWS/AZURE/GOOGLE CLOUD/OPENSTACK |
| **Build Tools** | ANT, MAVEN, Gradle and MS Build. |
| **Scripting Languages** | C, C++, HTML, CSS, JavaScript, J Query, Angular JS, JSON, XML, Bash, Ruby, PowerShell, Shell Scripting and Python. |
| **Web/Application servers** | Web Logic, WebSphere, Apache, Tomcat, JBOSS. |
| **Versioning Tools** | SVN, Bitbucket, GIT, Gitlab, GitHub |
| **Containerization Tools** | AWS ECS, Docker, Kubernetes, DockerSwarm |
| **Configuration Management Tools** | Chef, Ansible, Puppet |
| **SDLC** | Scrum, Agile and Waterfall |
| **Operating Systems** | Windows, UNIX, LINUX (RHEL, RedHat, Centos). |
| **Bug Tracking and Ticketing Tools** | JIRA, Remedy, HP Quality Center, IBM Clear Quest, Mingle, ADO boards |
| **RDBMS** | Oracle, SQL SERVER, MYSQL, DB2 |
| **Network Technologies** | SMTP, SNMP, ICMP, TCP/IP, FTP |

**Work Experience:**

**Client: Citizens Bank|Providence, Rhode Island Sep 2020- Present**

**Role: Cloud Devops Engineer**

**Responsibilities:**

* Deployed **Azure IaaS virtual machines** (VMs) and Cloud services (PaaS role instances) into secure

**VNets** and **subnets**.

* Worked on **Azure Site Recovery** and **Azure Backup-** Installed and Configured the **Azure Backup** agent and virtual machine backup, Enabled **Azure Virtual machine** backup from the Vault and configured the **ASR** and created multiple Virtual Machines using PowerShell scripting for the testing purposes.
* Created CI/CD Pipelines in **Azure DevOps** environments by providing their dependencies and tasks. Also have experience on implementing and managing continuous delivery systems and methodologies on **AWS** and created END-END Automation with CI Procedures using **Jenkins** & automated Maven builds by integrating them with Continuous Integration tools **Jenkins**
* Deployed and optimized two tier **Java, Python** web applications to **Azure DevOps** CI/CD to focus on development by using services such as Repos to commit codes, Test Plans to unit test, deploy App Service, **Azure Application** Insight collects health performance and usage data of the process, stored artifacts in blob storages.
* Moderate and contribute to the support forums (specific to **Azure Networking, Azure Virtual Machines, Azure Active Directory, Azure Storage)** for Microsoft Developers Network including Partners and MVPs
* Migrated applications from on-premises to **Azure Cloud** and created custom sized images for VM's and configured **Azure Backup Service** for taking backup of **Azure VM** and data of on premise to **Azure**.
* Migrated SQL Server databases to **SQL Azure Database** using **SQL Azure Migration Wizard** and used **Python API** to upload agent logs into **Azure blob storage** and in migration from on-premises to **Azure Cloud** and created custom images for VM's and Configured **Azure Backup Service** for taking backup of **Azure VM** and data of on premise to **Azure**.
* Migrated on-premises instances to **Azure Cloud** using **ARM subscription** with **Azure site Recovery**

and hands on experience with building and installing servers through **ARM Templates**.

* Managed Azure Infrastructure **Azure Web Roles**, **Worker Roles**, **VM Role**, **Azure SQL**, **Azure Storage, Azure**, **AD Licenses**, Virtual Machine Backup and Recover from a Recovery Services Vault using **Azure PowerShell** and **Azure Portal**.
* Managed cloud VMs with **AWS EC2** command line clients and Services **AWS** provisioning and worked on services like **EC2, S3, Glacier, ELB** (Load Balancers), **RDS, SNS, SWF** and **EBS.**
* Contributed to the support forums (specific to **Azure Networking**, **Azure Virtual Machines**, **Azure Active Directory**, **Azure Storage**) for Microsoft Developers Network.
* Involved in implementing and deploying multiple applications utilizing almost all the AWS stack (Including **EC2, Route53, S3, RDS, Dynamo DB, SNS, SQS, IAM**) focusing on high-availability, fault tolerance, and auto- scaling in **AWS Cloud Formation**.
* Experience in Writing Templates for Azure Infrastructure as code using **Terraform** to build staging and production environments. **Integrated Azure Log Analytics** with **Azure VMs** for monitoring the log files, store them and track metrics and used **Terraform** as a tool, Managed different infrastructure resources Cloud, **VMware**, and **Docke**r containers.
* Implemented and deployed **Azure Kubernetes** pod definitions, tags, labels, multi-pod container replication. Managed multiple **Kubernetes** pod containers scaling, and **auto-scaling**.
* Involved in continuous integration and continuous deployment system with Jenkins

on **Kubernetes** container environment, utilizing **Kubernetes** and **Docker** for the runtime environment for the system to build and test and deploy.

* Installed and Implemented **Ansible** configuration management system. Used **Ansible** to manage Web applications, Environment’s configuration Files, Users, **Mount points**, and Packages also Worked with automation/configuration management using **Ansible** and created playbooks in **YAML** to automate the development processes.
* Created CI/CD Pipelines **in Azure DevOps** environments by providing their dependencies and tasks. Also have experience on implementing and managing continuous delivery systems and methodologies on AWS and created END-END Automation with CI Procedures using **Jenkins** & automated **Maven** builds by integrating them with Continuous Integration tools **Jenkins**
* Installing, configuring, and administering **Jenkins** Continuous Integration tool on **Linux** machines along with adding/updating plugins such as **GIT, maven**, and **Ansible.**
* Implemented a CI/CD pipeline with **Docker, Jenkins** (TFS Plugin installed), Team Foundation Server (TFS), GitHub and **Azure Container Service**, whenever a new **TFS/GitHub** branch gets started, **Jenkins**, our Continuous Integration (CI) server, automatically attempts to build a new **Docke**r container from it.
* Implemented custom image using Packer and installed multiple software using **PowerShell** and deployed the same in **Azure Shared Image Gallery**
* Good Experience with **Splunk** for monitoring and analyzing log information. Experienced in Troubleshooting. **Splunk** search, quotas, monitor Inputs, **WMI Issues**, **Splunk crash logs** and Alert scripts.

# Environment: Azure, Docker, Jenkins, GitHub, Ansible, Kubernetes, Maven, Terraform, MySQL, maven, GitHub, .NET, python, Bash, TFS AzureDevOps, ASP. Net.

**Client: Centene Corporation|Chesterfield, Missouri Jan 2020- Aug- 2020**

**Role: GCP Devops Engineer**

**Responsibities:**

* Responsible for implementing containerized based applications on Azure Kubernetes by using **Azure Kubernetes service (AKS),** Kubernetes Cluster, which are responsible for cluster management, Virtual Network to deploy agent nodes, **Ingress API Gateway**, **MySQL** Databases and **Cosmo DB** for stateless storage of external data, and setup reverse proxy Nginx in the cluster.
* Deployed and optimized two tier **Java, Python**web applications to **Azure DevOps CI/CD** to focus on development by using services such as **Repos** to commit codes, **Test Plans** to unit test, deploy **App Service**, **Azure Application Insight** collects health performance and usage data of the process, stored artifacts in blob storages.
* Managed Azure Infrastructure **Azure Web Roles**, Worker Roles, **SQL Azure, Azure Storage, Azure AD Licenses**. Virtual Machine Backup and Recover from a Recovery Services Vault using **Azure** PowerShell and Portal.
* Worked on google cloud platform (GCP) services like compute engine, cloud load balancing, cloud storage, cloud SQL, stack driver monitoring and cloud deployment manager.
* Set-up databases **in GCP using RDS, cloud storage bucket** and configuring instance backups to bucket. prototype CI/CD system with **GitLab** on **GKE** utilizing **Kubernetes** and **Docker** for the runtime environment for the CI/CD systems to build and test and deploy.
* Managed virtual cloud **GCP** Resources as required with and overall objective of improving scalability, performance, and reliability and highly available fault tolerant cloud infrastructure.
* Maintained image for **GCP** workspace including **product deployments, patches, and hotfixes** and worked on migration of the services from **GCP** to **Azure.**
* **I**nstalled and configured Linux, SuSe& Red hat 5.x, 6.x, 7.x on Dell Power Edge (710,720 and 730), using Kickstart with PXE for LAMP (Linux**, Apache, MySQL and Perl/PHP)** installations.
* Worked with **Terraform** key features such as Infrastructure as code, Execution plans, Resource Graphs, Change Automation.
* Building/Maintaining Docker/Kubernetes container clusters managed by Kubernetes **Linux, Bash, GIT, Docker,** on GCP
* Configured containers and was responsible to design and deploy on the container management tool **Docker** and virtualization of servers are also done and solved the difficulties between the production and developers.
* Implemented private cloud using **Kubernetes** that supports **DEV, SIT, QA, STAGE and PROD environments** and has done **Autoscaling** of the containers when the usage is increased.
* Worked on **Kubernetes** to manage containerized applications using its **nodes, ConfigMaps, selectors, services,** and deployed application containers as **Pods**
* Used Chef for configuration management of hosted Instances within GCP. Configuring and Networking of Virtual Private Cloud (VPC).
* Configured, maintained, reviewed, and documented modules, manifests, **Git repositories for Puppet Enterprise on RHEL and Windows platforms.**
* Worked with administrators to ensure Splunk is actively and accurately running and monitoring on the current infrastructure implementation
* Designed and developed a configuration management database (CMDB) using Python and MySQL to maintain and audit the everyday configuration changes.
* Worked, managed **Ansible Playbooks with Ansible roles,** group variables, inventory files, copy and remove files on remote systems using file module.
* Administered and supported **GitHub Enterprise version control tool.**
* Responsible for managing the branches and promoting the branch during the release time in GIT.
* Managing and assigning the JIIRA tickets as a part of AGILE methodology to fasten the releases.

# Environment: GCP, Splunk, MySQL, CMDB (configuration management database), maven, GitHub, python, Bash, TFS, Kubernetes, Terraform, Chef, Docker, RHEL.

**Client: Wipro Technologies |Hyderabad, India March 2017- Dec 2019**

**Role: AWS Engineer**

**Responsibities:**

* Responsible for using AWS console for deploying and operating AWS services specifically **VPC, EC2, S3, EBS, IAM, ELB and Cloud Formation.**
* Maintained the user accounts IAM Roles, **VPC, RDB, Dynamo DB, SES, SQS** and SNS services in AWS cloud.
* Experience in designing and deploying **AWS** Solutions using E**C2, S3, and EBS, Elastic Load balancer (ELB),** auto-scaling groups and OpsWorks.
* Worked at optimizing volumes and EC2 instances and created multiple VPC instances.
* Experience working with **IAM** to create new accounts, roles, and groups.
* Experience in creating alarms and notifications for **EC2 i**nstances using **Cloud Watch**.
* Experience involving configuring **S3** versioning and lifecycle policies to and backup files and archive files in glacier.
* Implemented Backup & Recovery, **S3** life cycle management, reduced costs by creating Customized Alarms. Managed Billing across several **AWS** accounts and reduced costs by effectively utilizing the resources.
* Involved in pushing the code to **GitHub.**
* Installed workstation, bootstrapped nodes, wrote recipes and cookbooks and uploaded them to chef-server, managed on-site OS/applications/services/ packages using chef as well as **AWS** for **EC2/S3&ELB** with **chef cookbooks**. Written **Terraform** templates, **Chef cookbooks**, recipes and pushed them onto **Chef serve**r for configuring **EC2** Instances.
* Developed build and deployment scripts using **MAVEN** as build tools in Jenkins to move from one environment to other environments.
* Worked at optimizing volumes and **AWS EC2 instances** and created multiple VPC instances.
* Troubleshooting **Docker Swarm** clusters in **AWS** to keep the nodes up and running.
* Branching, Tagging, Release Activities on Version Control Tools like **GIT.**
* Created alarms and notifications for **AWS EC2** instances using **Cloud Watch**.
* Prepared metrics report to monitor the health of the instances and take required actions before an arise of a problem.
* Managed build results in **Jenkins** and deployed using workflows.
* Troubleshooting and monitoring the flow of data from **Kafka, Prometheus** and **Grafana.**
* Configured various plugins in **Jenkins** for automation of the workflows and to optimize and smooth running of build jobs.
* Worked on configuring S3 versioning and lifecycle policies to and backup files and archive files in glacier.

# Environment: AWS, AWS Cloud Formation Templates, AWS RDS, AWS Cloud Watch, Ruby, Git, Tomcat, Apache, Jenkins, RHEL, Linux, Python, JIRA, Maven, Art factory, RHEL 6.5, 6.8, Oracle, Windows Server 2008, Confluence, Agile

**Client: Sita Corp Private Limited|Hyderabad, India June 2015- Feb 2017**

**Role: AWS Devops Engineer**

**Responsibities:**

* Build servers using **AWS**, importing volumes, launching **EC2**, **RDS**, creating security groups, auto- scaling load balancers (**ELBs**) in the defined virtual private connection
* **Build** and **release** software baselines, code merges, branch and label creation and interfaced between development and infrastructure.
* Manage **AWSEC2** instances utilizing **Auto Scaling, Elastic Load Balancing** and **Glacier** for our QA and UAT environments as well as infrastructure servers for **GIT** and **Chef**.
* Maintained the user accounts **(IAM), RDS, ROUTE53, VPC, RDB, SES, SQS** and **SNS** services in **AWS** cloud.
* Implemented **Pytho**n scripts to totally automate **AWS** services which includes web servers, **ELB,** **Cloud** front distribution, database, **EC2** and database security groups, **S3** bucket and application configuration, this script creates stacks, single servers, or joins web servers to stacks.
* Installed **Jenkins** on a **Linu**x machine and created a master and slave configuration through a build farm for implementation of multiple parallel builds.
* Written **Chef Cookbooks** for various DB configurations to modularize and optimize product configuration, converting production support scripts to **Chef Recipes** and **AWS server** provisioning.
* Installed **Chef Server** and clients to pick up the integration of automated build with deployment pipeline from **Jenkins’s** repository and deploy in target environments.
* Involved in creating **Jenkins CI** pipelines and automate most of the pipeline build related tasks by deploying and validating the automated builds using pipeline **groovy scripts**.
* Maintained **Jenkins** continuous integration tool using **shell/Perl** and **ruby** scripts for automating releases to different environments.
* Developed **UNIX** shell scripts for auto deployment process and health monitoring of **WebLogic** servers and ran them as cron jobs.
* Configured JMS resources Queues,Topics,and JDBC connection pools and data sources for **WebLogic/JBoss** server instances.
* Assisted in using build and Automation tools like **Maven** for the building of deployable **artifacts**

such as war & jar from source code.

* Worked on branching, tagging, and maintaining the version control and source code management tool **GIT** on **Linux** and windows platforms.
* Good Experience Log collection in **ELK** (**ElasticSearch, Logstash, Kibana**) installed File Beat on all nodes in cluster to send log data to **Logstash**. Applied filters on log data before sending to **Elastic Search.**
* Deployed and configured **JIRA**, both hosted and local instances for issue tracking, workflow collaboration, and tool-chain automation.
* Created the file systems using **Redhat volume manager** and performing the health check on regular basis for all Linux servers.
* Worked with a complex environment on **Redhat Linux** and **Windows Servers** while ensuring that these systems adhere to organizational standards and policies.

# Environment: UNIX, Redhat, IAM, EC2, RDS, S3, ELB, Docker, Docker Images, Chef, Jenkins, Maven, Git, ELK, Jira, Redhat Linux, SVN, Shell scripting, MySQL.

**Client: Priya Sharma Software Pvt. Ltd. |Hyderabad, India April 2014- May 2015**

**Role: Linux Administrator**

**Responsibities:**

* Managed and administrated of all **UNIX servers**, includes Linux operating systems by applying relative patches and packages at regular maintenance periods using **Red Hat Satellite server**, **YUM**, **RPM tools**.
* Planned and performed the upgrades to **Linux** **(RHEL 5x, 6x, SUSE 10, 11, CENTOS 5, 6)** operating systems and hardware maintenance like changing memory modules, replacing disk drives.
* Deployment and Configuration of application server **Tomcat** deploying **Java** and Web Application.
* Developed **Linux shell scripts** to accomplish redundant tasks to simplify in distributed administration.
* Upgrades, installs, configuration and administration security and monitoring tools on **Linux.**
* Managing **systems routine backup**, scheduling jobs like disabling and enabling cron jobs, enabling system logging, network logging of servers for maintenance, performance tuning, and testing.
* Utilized **Remedy** for data center service requests Network requests for IP's, ILO's, and DNS changes.
* Setting up **JBoss cluster** and configuring **apache** with **JBoss** on **Red Hat Linux**. Proxy serving with **Apache**. Troubleshooting Apache with **JBoss** and **Mod jk** troubleshooting for the clients.
* Setting up the lab environment with **Tomcat/Apache**, configuring the setup with F5 virtual load balancer for customer application.
* Responsible for versioning the source code, releasing binary files, creating, and applying labels on source files and release files.
* Strong expertise of Software Development Life Cycle (SDLC) methodologies such as **Agile, SCRUM** and **Waterfall models**.
* Installed/Configured/Managed **Puppet** Master/Agent. Wrote custom Modules and Manifests, downloaded pre-written modules from **Puppet**-forge. Up gradation or Migration of **Puppet** Community.
* Installed, Deployed **Red Hat Enterprise** Linux 6.x/7.x, **CentOS** and installation of package and patches for Red Hat Linux Servers.

**Environment: Unix, Linux (RHEL 6.x/7.x, CentOS 5, 6), Tomcat/Apache, Puppet, JBOSS, WebSphere, Remedy, Python.**