**About me**

* Hi, I am currently working as a DevOps Engineer.
* I am DevOps Consultant, Cloud Architect & Automation Engineer, I help teams in designing Solutions on Cloud.
* I work on both AWS & Azure, I am from Digital Transformation team, I help teams to implement new Applications on cloud and work on migrations, Planning, and execution.
* I have hands on infrastructure as a code using terraform, cft & Azure ARM templates.
* I work on Automation Projects, CI/CD Projects, Build and Release Automation, Unit testing, Security testing, Deployments and i use tools like Jenkins/Azure Devops/Gitlabs/Code Pipeline etc.
* One of my key roles is to understand the Applications very well and help teams to Convert Monolithic Applications to Microservices using Docker and help orchestrate these using Kubernetes.
* I have experience working with AKS & ACR in Azure, EKS & ECR in AWS, Little bit of GKE as well.
* I work very closely with Development teams and involve and help in all phases of SDLC Process , Starting from Design Phase to the Post Implementation, Automation & Support Phases.
* I have hands on Ansible and chef
* I help teams in Implementing Containerization using Docker orchestrating using Kubernetes.
* Coming to my scripting, i worked on Shell Scripting/PowerShell/Python Data Structures & Python Flask.
* Coming to Monitoring i have experience working with Nagios, Splunk, ELK (Elastic Search/Logstash/Kibana), Prometheus, Grafana, New Relic.

Multiple deployments like Blue Green, Canary, Atomic, Rolling, Minimum In-Service Deployments, Active Passive Deployments etc.

Overall, this is my experience working at a high level. I work with enterprise application group and actively support the Corporate Devops.

I can go more detail for anything.

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\*\* Read Only for Managers/Lead Positions

8. I am responsible for Managing my team. I do create Project Plan and coordinate with Partners, Customers, Internal Stakeholders to take various approvals and

build relationships with various team in order to acheive my day to day Goal.

9. I actively work as a Program Manager Supporting various DOmains in Cloud Defining Solutions , Defining Security Standards, Creating Baseline Documentation,

Managing Sprints and Operting in the Agile Fashion following ScrumBan, Kanban Dashboards, I also do a Role of Scrum Master, Do Sprint Planning as well.

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Day to day

What is your day-to-day operations?

- I am Developer Administrator, 50% of doing Developments using DevOps Technologies & 50% doing the Production Support.

- In DevOps Work, I receive Several tickets on New Automations, Changes to Pipelines, Executing & Monitoring Monthly/Weekly/Daily Builds.

- I do the Release Management work using Jenkins.

- I am responsible for Ensuring that Monitoring is Done on Each Asset and Ensure we are getting the logs.

- 25% of my work is on exploring new Technologies and doing POC on new tickets and Provide the Feedback and Make Production Ready Applications.

- Day starts with Checking the tickets, Responding to them and Gatekeeping Production Environment.

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Technologies

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\*\*AWS

1. AWS - In AWS I worked on services like EC2, S3, VPC, Route 53, ELB, Classic Load Balancer, ECR (Elastic Container Registry), ECS (Elastic Container Service), AMI (Amazon Machine Images), cloud watch, cloud trail, configuring the Lambda functions to make them event driven or schedule driven.

2. We support teams who request a cloud infrastructure in our company standard.

our Company standard include hosting services only in specific regions, Having a Jump Server to Access any Private instances etc.

3. we Support Monitoring AWS using the Cloud watch, Cloud trail, VPC Flow logs and identifying the Misconfigurations on Environments using a tool called Prisma Cloud.

4. I also do the Infrastructure as a Code using the Cloud Formation as well as Terraform. Mostly Terraform is what i work and have expertise on.

5. In Addition to this, we support some services like API Gateway, AWS Lambda, AWS Quick Sight, Sage Maker etc.

6. I have involved in Complete Implementation of AWS EKS/ECR etc. to Manage our Kubernetes Environments.

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\*\*Azure

1. In Azure i am lucky enough to be there from the beginning of the Azure implimentation to the Production ready state.

2. In Azure i understand i worked on Azure AD, Subscriptions, Resource Groups, App Services, VNets, Tunnels, Site Recovery, Vnet Peering, Blob , VM and VM Scalesets, Log Analytics & Secuirity Center etc. I worked on all these.

3. I also have knowledge on Azure Automation and Creating the ARM Templates.

4. We Support Azure Devops Actively.

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\*\*CI/CD

1. I help teams in different forms of the CI/CD, One of my key responsibilities is to improve the process using Automation.

2. I help the teams in Creating Automated Parameterized Pipelines Continuous Integration (CI) / Continuous Delivery (CD) / Unit testing using Sonar and Selenium / Security testing using Fortify etc.

Deployments using Ansible on Linux and PowerShell remoting on windows.

3. I have experience working with Groovy, pipeline syntax and create scripted/Declarative Pipelines.

4. I have experience making the CI/CD as automated by creating the webhooks for seamless integration on version control and CI/CD.

5. I have strong experience in Jenkins in configuring several jobs, free style projects, conditional pipelines, building with multiple branches and so on.

6. Also have strong experience in Azure DevOps using Azure Repos(Git)/ Azure Build and Release pipelines / Azure Test Plans for automated testing/ Azure Artifacts.

7. In the Build process i used various technologies

eg:- .net based applications we used MSBuild and Nuget based .net artifacts.

Angular Based Apps we used npm , here we do npm install , npm build-prod

Java based we used remote maven artifact feeds., here we do mvn validate, mvn compile, mvn test , mvn install.

we can configure a local or remote maven depending upon the requirement.

Python based using Pip.

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Example of a CI Pipeline

My CI Pipeline looks like , its a 5 staged pipeline.

Stage 1 --> Code Checkout.

- Here we do the Code checkout from the version control

Stage 2 --> Code Build / Artifact creation.

- This is the Place we do the Artifact creation i.e war/jar/ear/zip/bin etc.

Stage 3 --> Upload Artifact

- Here is the Point where we upload the artifact to artifactor like Jfrog artifactory/ Nesus Repository.

- Here we use curl command in a combinatio nwith Authentication token.

Stage 4 --> Docker image creation.

- Here we checkout the Dockerfile code from the Devops git and from the artifact that is created in previous step.

we create a docker image from the dockerfile by copying the artifact to the image.

Stage 5 --> upload image to the Docker Registry

- Once the image is created , you can upload it to the ECR(AWS-Elastic Container Registry)/ACR(Azure Container Registry)

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\*\* Branching and Merging Strategy

We use Git flow branching.

1. According to this Method, We create 3 different branches in each git repo called Development/QA & Release.

2. for us the flow is from Development --> QA --> Release Branches.

3. Development branch is used for daily and adhoc builds on Development.

4. QA Branch is for Collating all daily builds to Candidate or Production Builds. anything deployed in Prod is first deployed and tested in QA.

5. Basically when a developer want to develop any featuere , he will create his own branch which is a copy of dev branch and does the development

6. Developer then raises a Merge request with source as his branch and destination as Development branch.

7. Once the Code is in Dev Branch a merge request raised to QA and QA Deployment is done and here we do security testing and unit test and feedback.

8. Once everything is ok , QA --> Release, anathor merge request is raised and final build for prod is generated and deployed.

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\*\*Docker & Kubernetes:-

1. My Responsibility in Docker is to work with Various teams and understand the Application and convert the VM based application to a docker image and scale them and deploy them on the Kubernetes cluster like EKS(elastic Kubernetes Service)/AKS(Azure Kubernetes cluster)

2. I have knowledge on Creating Pods, Deployments, Replica sets, Pod Autoscaling, Creating Services (NodePort/CLusterIP/Load Balancer) , Kubernetes cronjob, job etc we can do.

Apart from this i have good knowledge working with YAML as well.

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\*\*Ansible

1. I have experience working with Ansible, Ansible is used in our case for both configuration Management and Application Automation.

Configuration Management - if we want to change a one simple file like server.xml in tomcat for 100 servers, you need a powerful config mgmt. tool to help you and we use Ansible in this case.

Application Automation - we use this to deploy using Jenkins, we use this for creating and running Playbooks to install and configure the application and do the builds.

basically, we create an inventory file and group the hosts and trigger based on the inventory.

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\*\*GCP

1. I have been through the phase of Google Cloud Implimentation from the Begining interacting with Google team

creating the Organization and setting up Policies for the Projects and Folders.

2. I have involved and configured the GCP with identity Federation OKTA for NOrmal Users and MFA for Admin Accounts.

3. I have involved in the setup of creating the VPC, Shared VPC (Sharing VPC b/w Projects), Security Command Center, Stack Driver logging and etc.

4. I have interacted with Various teams in Creating the DOcker Images and Deploying the containers on the GKE (Google Kubernetes ENgine)

5. I have experience working with Kubernetes creting services, Deployments, Replica sets, cronjobs , job pods, init containers, config maps, secrets, policies, helm charts as well.

6. I have experience creating the infrastructure on GCP using Terraform. I have created the VPC , Created the IAM Roles, Managing the Identities.

7. I have experience working with Hashicorp vault in integration to the Google CLoud Platform for integaration of our secrets.

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\*\*ABout Projects.

Product Based Companies:-

- i work for Corp Projects i.e the company projects and i am responsible for maintaining and managing them.

Project 1:-

- I work for Corp Broadcast Applications. These are basically Company Broadcast for internal and external customers.

- Application is to create a email campaign and send it across to the audience filtering the contact list,

- this application ensures right email is sent to right people; specific band people emails will go specific people only.

- This Application is developed in Front end Java script and complete business logic is in Java J2EE.

- My Role includes doing Production Support for this, New Applications and offers onboarding, Day in and day out deployments,

Day in and Day out change requests and scheduled and unscheduled maintenance, system patching, security patching etc.

- i work with various teams in case of any requirement and do a collective effort to bring maturity to the Process through Automation.

- This Application is Deployed on AWS Cloud.

Project 2

- I work for the ETL Application (Extract, Transform, Load )

- This Application is deployed in AWS, has a Python as business logic and database oracle rds as a backend.

- We Do the Extraction from the data kept in sftp/s3 bucket, this data is unstructured data.

- the Application reads the data in s3 bucket, applies some machine level algorithms, and do the Data prediction.

- Here we use Project Anaconda/Jupiter/Hadoop cluster, and the Data is read from the bucket is converted to structured format

- the Structured data is sent back to RDS and the Frontend UI will do the Analytics and ML Capabilities and show the data.

- My Responsibility is managing the AWS infrastructure/Monitor the Resources/ Provide Production Support.

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Operations & Troubleshooting

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1. I have very Good Experience Doing Production Support and Handling Operations for Monitoring/Doing Remediation and Mitigation.

2. Though i a developer Administrator myself, I am a Big Advocate of Agile Methodologies and operate in Agile Fashion in Scrum Ban and Kan Ban.

3. I have very Good Knowledge on the Monitoring Aspects doing Proactive Monitoring is the Key role.

4. The Best ways to do the Proactive Monitoring is to create automated scripts that provides the intelligence to detect any errors.

5. For Doing effective Operations, one must ensure that there is a thorough documentation in terms of Handling incidents, Problems, Process & Issues.

6. Troubleshooting and investigation are 2 major objectives when you are working on Production Support.

Our vision should be such a way to think the Problem in different directions and look at the logs and examine understand and document the results.

7. I am having excellent investigation skills at Database layer, Application Layer (Middleware), Presentation Layer (Apache http/IIS)

Network Layer (Wireshark, Fiddler doing capturing packets) , analysing the TCP Dumps and troubleshooting pcap files etc.

8. I am very flexible and can stretch myself in a 24/5 support model as Production Support is important.

9. I held responsible for creating the RCA (Root cause analysis) Document and conducting Post-mortem calls to ensure that the Problems are fixed permanently.

10. I have very good knowledge on ITIL (Change Management, Problem Management , Incident Management etc.)