

# Day to day activities - AWS DevOps

- Architecture ( draw.io ) -> Pricing for Resources in AWS Account.
- Creating a Development Environment ( mostly manually for Dev Team to get started )
- Writing IAC Templates to re-create environments as per SDLC setup.
- Following Best Practices to ensure minimal permissions are granted for a required aws resources. ( Not Cross Environment Resources should be shared )
- Creating Network Infrastructure. ( 1 Public Subnet , 3 Private Subnet )
- Creating Compute Infrastructure including EC2 , ASG, Lambda functions.
- Creation IAM Setup across AWS Accounts.
- Managing Deployments -> IAC Deployments ( stack create, stack update )
  - CI ( CodeBuild Job/ Jenkins Job )
- Github PRs and Merge ( child branches, test change, raise PR ( child -> develop ) , deploy qa, test, raise PR from **develop** -> **main** )
- Co-ordinate with Dev Team for using Best Practices like SSM Parameter, Environment Variables, Secrets Manager.

# Day starts with?

- Ticket management using any ticketing tool
  - Jira
  - Service Now
- Alert and Resource monitoring – **Cloudwatch Events , Cloudwatch metrics.**
- Deployment/ Release Plan Status.
- **Log Analysis using Athena or CloudWatch Queries.**
- Working with existing Development for DevOps IAC and CI/CD Deployment Jobs Creation.
- Infrastructure Management
  - **Documentation** – Create step-by-step Document for operational processes.
  - Maintain Server Informations, Infrastructure Diagrams to be kept up to date.

# Ticket Management Tools

Ticket management tools help us organize the tasks assigned to us or our team . Below are few popular ticketing tools. (These are always customized to client needs )

Service Now (SNOW):

<https://www.servicenow.com/>

JIRA :

<https://www.atlassian.com/software/jira/service-management>

Github Issues:

# Common terminologies

## **Tickets :**

These are generally tasks/goal assigned to an individual or a team . Tickets are generated in order to track and audit activities being performed in the organization .

## **SLA : Service Level Agreement**

SLA is associated with promised time for responding/resolving tickets.

This is a promise a vendor makes to the client . If breached it could lead to escalation

## **Escalations :**

Scenario where a standard practice is not followed (ex. breach of a SLA ) , client involves higher management from the vendor side for immediate attention/action . It is generally referred as escalation

## **Priority :**

Every ticket will carry a priority based on the time within which it needs to be resolved . Each priority will have separate SLA.

# Frequent Requests - AWS IAM / S3

- User Creation – CLI and Console, sharing access key and secret key , creating MFA for users.
  - Permissions Management – CLI and Console
  - Access request – Granting permissions to users , groups,service roles,user role . (Minimum required access policy to followed).
  - Creating assumed roles for cross account access.
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- Bucket creation – Encryption recommended (Usually S3-AES256)
  - Enabling X Region Replication
  - Creating lifecycle policy
  - Creating and appending bucket policies and ACLs

# Frequent requests- EC2

- Creating instances
- Instance backup and restore – AMI recommended over snapshot
- Create snapshot policy
- Modifying instance type – Downtime required
- Modify instance volume
- Add extra volumes
- Creating linux/Windows users on instance
- Stop/Terminate instances
- Creating ELB
- Creating ASG
- Attach/modify role attached to EC2 instances
- Raising service limit increase tickets

# Frequent Requests- Networking

- Create VPC ,subnets. RTs- Always private recommended
- Create peering requests
- Troubleshoot Connectivity issues
- Enabling VPC flowlogs
- Configure Network ACLs

# DevOps Development - Sprint

- Scrum Master ( Follow Sprint Goals )
- Sprint usually lasts for 2 weeks
- Tickets are created in Jira, Github Projects with Issues or any tool.
- Acceptance Criteria in Ticket.
- Story Points Estimation : Time Taken to complete a task,
- Daily Sprint Planning Meeting:
  - Discuss Tasks and Updates working on
  - Dependencies on Tasks
  - Upcoming tasks and challenges.