### AWS DevOps

Day1

Theory

Day2

**Practical** 

Assignments/CaseStudy

# Agenda

Why AWS DevOps?

- 1.Git→ Github—>CodeCommit
- $2.Docker \rightarrow DockerHub \rightarrow ECS/ECR$
- 3.Jenkins  $\rightarrow$  Pipeline $\rightarrow$ CodePipeline/CodeBuild
- 4.K8S→ Minikube/Kubeadm/kubectl/**EKS**
- 5.Configuration Management →

Ansible/OpsWork/Chef/Puppet

- 1.Management effort will decrease.
- 2.Managed by AWS.

SLA - > 99.9%

3.CloudWatch Integration (logs). CloudTrail → API call

What is AWS DevOps?

This are the DevOps tools provided/managed by AWS.

#### Resources

### 1.CodeCommit

It is the AWS provided Version Control System . clone, push, pull, direct creation of the file , merge Visualization  $\rightarrow$  lines of code , but if you do some changes on to it . ssh/https

Prerequisites
IAM → USER → admin access
setup of IAM USER
Create Repository
Create First File
Create EC2 machine → Ubuntu
Generate https credentials from IAM
Clone the repository
see the file

### 2.CodeBuild

It is used for creating the **environment**. Example:  $\rightarrow$  I have a node.js application (**EC2**)  $\rightarrow$  npm we pay only for the build hours

Scenario ♣:-->
Github→ webhook→jenkins→EC2
change—>detected→jenkins→jobs will be getting triggered.
EC2→ Running? Runnings→ you will be paying for it .

situation :  $\rightarrow$  we pay only for the build hours we pay only for the build hours

**BuildSpec.yaml** —> file that contains the configuration to be done

**Build** stage

### **CodeDeploy**

It is the location where we register our EC2, application machine.

webapplication  $\rightarrow$  EC2  $\rightarrow$ apache2 $\rightarrow$  /var/www/html $\rightarrow$ rm index.html $\rightarrow$  custom index.html  $\rightarrow$  .png  $\rightarrow$  hosting ..

Appspec.yml  $\rightarrow$  all the above information the file. <u>aws-pipeline/appspec.yml at master · Sameer-8080/aws-pipeline</u> · GitHub

<u>AWSDevOps-Project/user\_data at main · Sameer-8080/AWSDevOps-Project · GitHub</u>

# **CodePipeline**