AWS DEVOPS

AWS provide a set of Developer tools that allow users to create a CI/CD Pipeline from the source to deploy the stage. This makes easy for DevOps Engineer to integrate with AWS. The services provided by AWS for Devops simplify the managing and provisioning infrastructure, deploying application code, automation software release processes and monitoring your application and infrastructure performance.

AWS has tools for Devops but it also support traditional Devops tools like Jenkins, Splunk, Kubernetes, Dockers and Ansible.

Why AWS for DevOps?

1. Programmable: - You can write a program, scripts and can implement inside AWS developer tool to impact Devops lifecycle.
2. Fully Managed: - They take care of system and requirements as we don't want to manage and install everything on our system.
3. Automation
4. Build for Scale:- AWS DevOps will be used on existing services like EC2, Lambda where scaling feature is included.
5. Security:- AWS is secure
6. Pay-as-you-go:- You pay as you use. You don't have to pay for a day if you want it for 4-8 hours. You have to pay just for the time you required.

Tools Provides by AWS for DevOps

1. AWS Code commit: It is a version control tool provided by AWS and it provides a lot of free features. It's just like Github or Bit bucket and provides same features as Github provide like push, pull, add etc. It is a private repository and provides 5 active users per month and 5GB free.
   You can create a repository on AWS by Going on
   Developer Tools → Code Commit → Repository → create new repo

2. AWS Code Build: AWS Code Build is fully managed Continuous Integration Service that compiles source code, runs tests and produce software packages that are ready to deploy.
3. AWS Code Deploy: It is used to deploy your application on any services you choose like EC2 or Lambda or Elastic Beanstalk.
   Feature of AWS Code Deployment:

- Automated Deployment - AWS Code Deploy is fully automating your software deployment. When any changes are done in source code, it deploys automatically and changes will be visible.
- Minimize Downtime – AWS Code Deploy minimize the downtime. It will take very few seconds to display the changes. Your website will be down for very few sec when any changes are done to be displayed on website.
- Centralized Control- It also provides CLI (Command Line Interface) to manage and also provide management console. You can control all the operations happening in code Deploy, Commit using CLI.
- Easy to adopt – It is easy to deploy and works with any application. It means whatever service you are deploying to ec2 , lambda or elastic beanstalk. It provides the same User Interface with same experience.

4. AWS Code Pipeline:
    - It is a continuous delivery tool which is fully managed by AWS which you can to automate your release for rapid and reliable deployment. It means you can automate your website or application which is running on code deploy. When pipeline created any changes made in code it automatically pushes it to code deploys.
    - It is easy to integrate AWS Code Pipeline with Github or Bit bucket or any other version control.
    - It builds, tests, deploy every time there is change in code. This enables to deliver the features and update quickly.

5. AWS Code Star: AWS Code Star provides Centralized User Interface which helps to develop, test and deploy the applications on AWS easily and quickly.