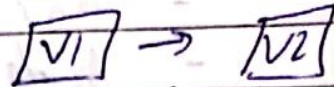
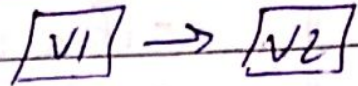


Day 18/100

AWS CodeDeploy

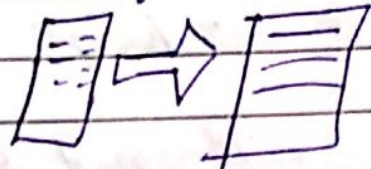
- We want to deploy our application automatically

EC2 Instance being upgraded



- Works with EC2 instances
- Work with On-Premises Servers
- Hybrid Service

On-premises Servers being upgraded



- Servers/Instances must be provisioned and Configured ahead of time with CodeDeploy Agent.

AWS CodeCommit

- Before pushing the application code to Servers it needs to be stored somewhere
- Developers usually store code in repository using the Git technology
- A famous public offering is GitHub, AWS' competing product is CodeCommit
- CodeCommit:
 - Source-Control service that hosts Git-based repositories
 - Make it easy to collaborate with others on code

- The Code changes are automatically versioned

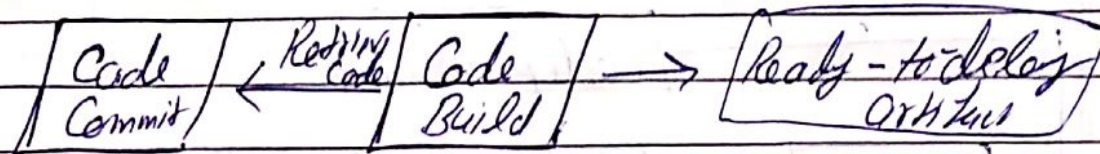
• Benefits:

- Fully managed
- Scalable & highly available
- Private, Secured, Integrated with AWS.

AWS Code Build

• Code building Service in the Cloud (Name is obvious)

- Compiles source code, run tests and produces package that are ready to be deployed (by CodeDeploy for example)

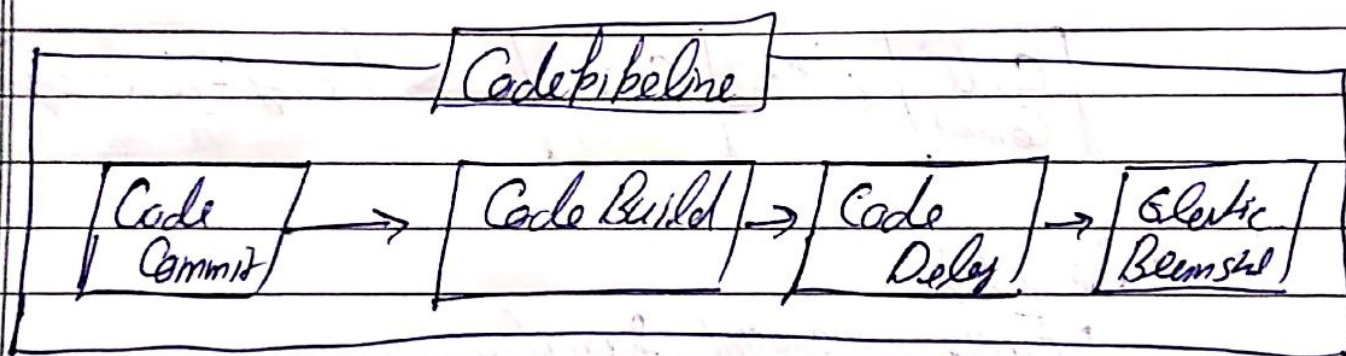


• Benefits

- Fully managed Serverless
- Continuously Scalable & highly available
- Secure
- Pay-as-you-go pricing - only pay for the build time

AWS CodePipeline

- Orchestrate the different steps to move the Code automatically pushed to production
 - Code \Rightarrow Build \Rightarrow Test \Rightarrow Provision \Rightarrow Deploy
 - Basic for CI/CD (Continuous Integration & Continuous Delivery)
- Benefits:
 - Fully managed, Compatible with CodeCommit, CodeBuild, CodeDeploy, Elastic Beanstalk, CloudFormation, GitHub, 3rd-party service (GitHub --) & Custom plugins
 - Fast delivery & rapid updates



AWS CodeArtifact

- Software packages depend on each other to be built (also called code dependencies) and new ones are created.

- Storing and retrieving these dependencies is called artifact management
- Traditionally you need to setup your own artifact management system.
- CodeArtifact is a secure, scalable & cost effective artifact management for software development
- Works with common dependency management tools such as Maven, Gradle, npm, yarn, Zwing, pip and NuGet
- Developers and CodeBuild can then retrieve dependencies straight from CodeArtifact

CodeStar

- Unified UI to easily manage software development activities in one place
- "Quick way" to get started, to correctly set up CodeCommit, CodePipeline, CodeBuild, CodeDeploy, Elastic Beanstalk, EC2 etc
- Can edit the code "in-the-cloud" using Aws Cloud9

AWS Cloud9

- AWS Cloud9 is cloud IDE (Integrated Development Environment) for writing, running & debugging code.
- A Cloud IDE can be used with web browser, meaning you work on your project from your office, home or anywhere with internet with no setup necessary.
- AWS Cloud9 also allows for code collaboration in real-time (like programming).