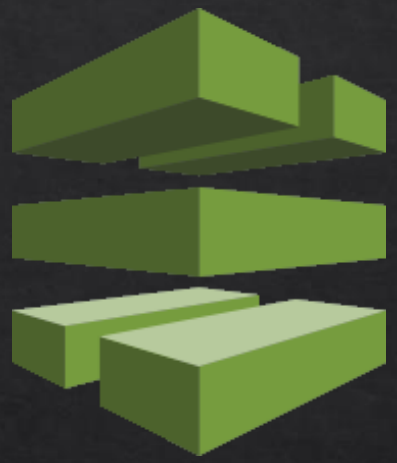


AWS CodePipeline

CONTINUOUS INTEGRATION AND CONTINUOS DELIVERY

By Yesid Perea Martinez
https://github.com/yperea

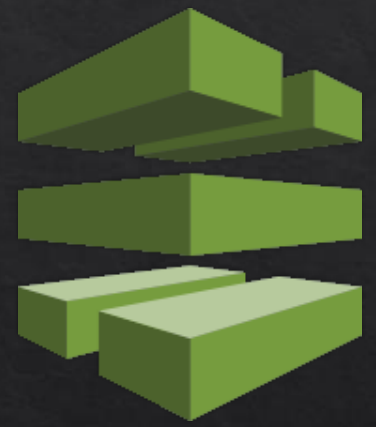
Based on What is Continuous Delivery? - Amazon Web Services

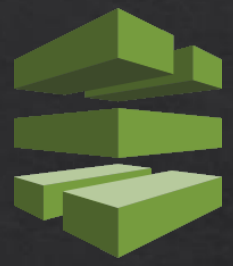
AWS CodePipeline

- Concepts
- How it works
- Demo
- Questions

AWS CodePipeline

- Concepts



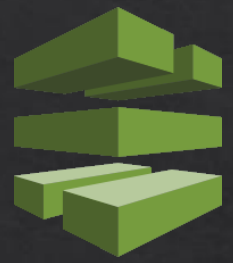


Continuous Integration + Quality Tests = Continuous Delivery + Automatic Deployment = Continuous Deployment

Software development practice where developers FREQUENTLY merge their code changes into a central repository, after which automated builds and tests are run.

Code changes are automatically built, tested beyond unit tests - UI testing, load testing, integration testing, API reliability testing, etc.- and pushed to a **non-production** testing or staging environment.

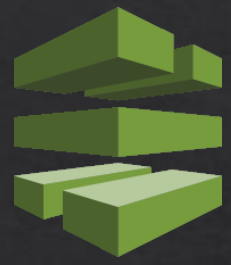
With Continuous Deployment, production happens automatically without explicit approval.



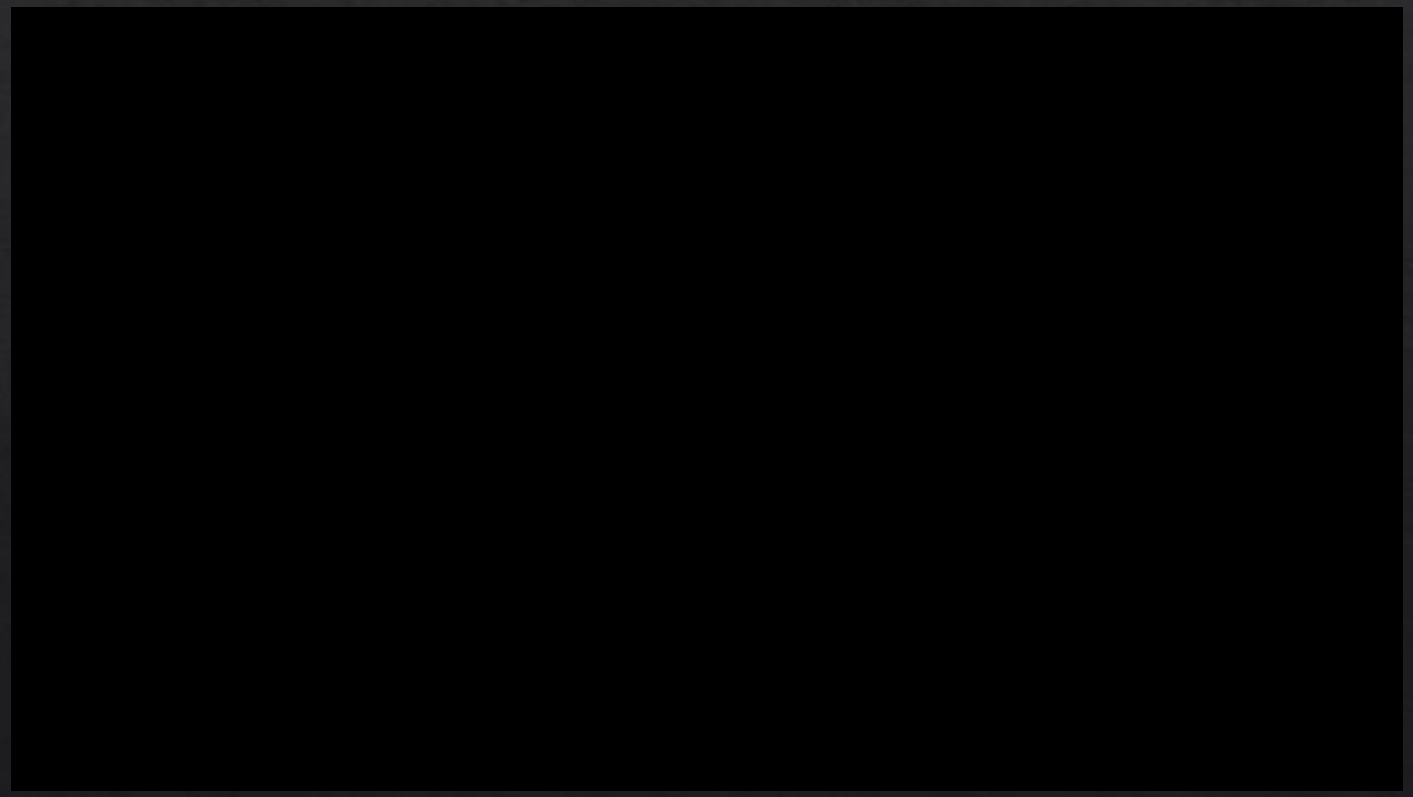
What is AWS CodePipeline?

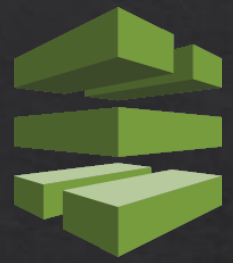
AWS CodePipeline is a fully managed Continuous Delivery service that helps to automate release pipelines for fast and reliable application and infrastructure updates.

Automates the build, test, and deploy phases of your release process every time there is a code change, based on the release model you define.



How AWS CodePipeline Works?



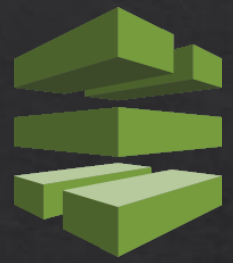


What is AWS CodeDeploy?

AWS CodeDeploy is a fully managed deployment service that automates software deployments across your development, test, and production environments whether deploying to Amazon EC2, AWS Lambda, and your on-premises servers.

Essential Components

Source Code Repository + Appspec.yml File + CodeDeploy Agent

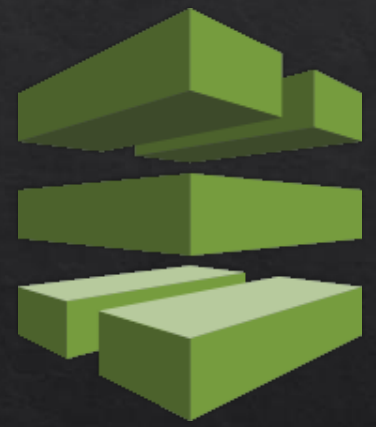


What is AWS CodeBuild?

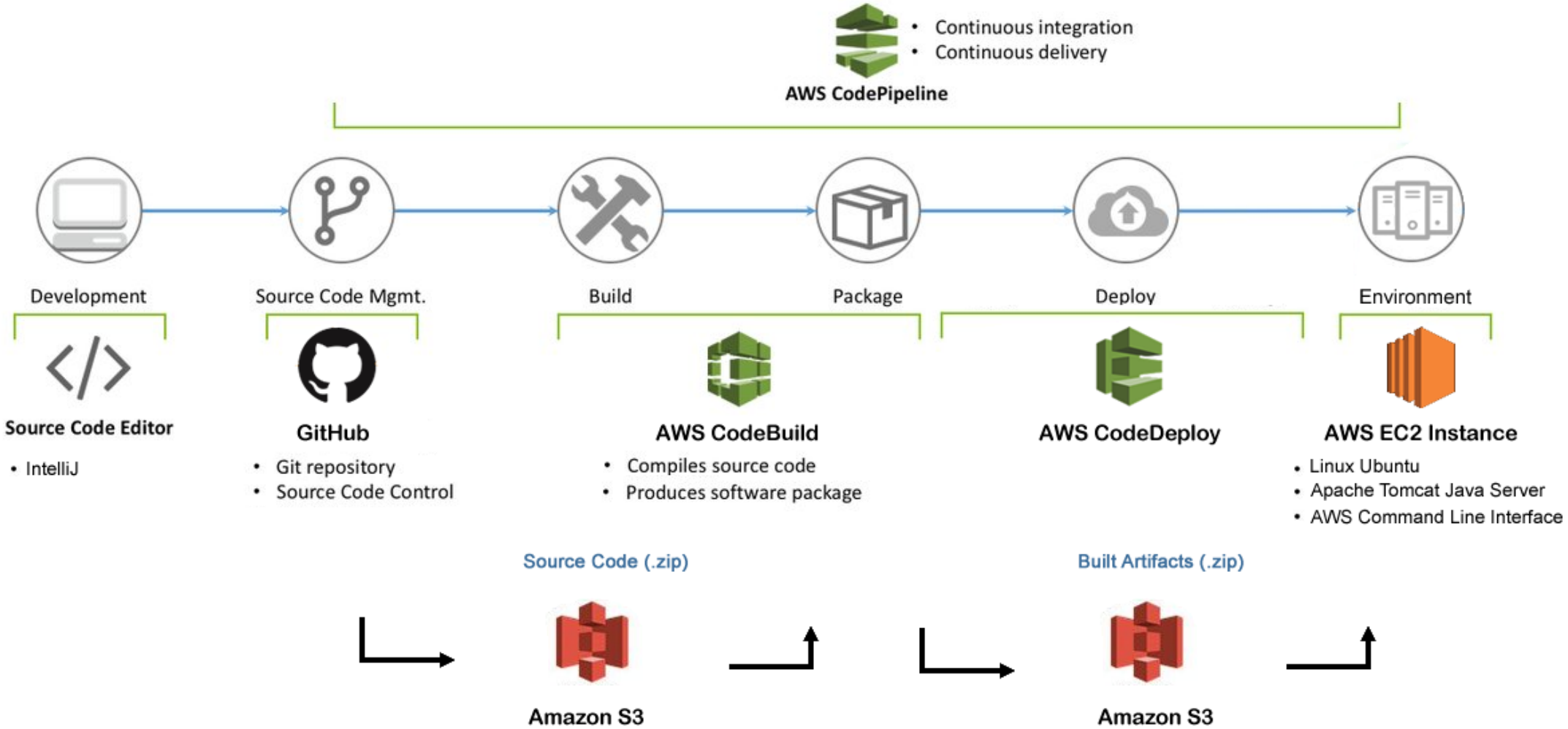
AWS CodeBuild is a fully managed continuous integration service that compiles source code, runs tests, and produces software packages that are ready to deploy.

AWS CodePipeline

- Demo



Demo Configuration



Demo Prerequisites

- AWS Account
  - EC2 Instance with Linux Ubuntu 16 LTS and Apache Tomcat.
  - AWS CodeDeploy Agent installed.
  - AWS CodeDeploy Service Role to access the instances to which applications will be deployed.
- GitHub Account
  - Repository with a Java Web Application or where you can push the sample code.
- Source Code Editor
  - IntelliJ
  - Java WebApp Maven Project

AWS CodePipeline

- OK… Let's do it!

THANK YOU!

Questions?