

Introduction to DevOps



CLARUSWAY
WAY TO REINVENT YOURSELF

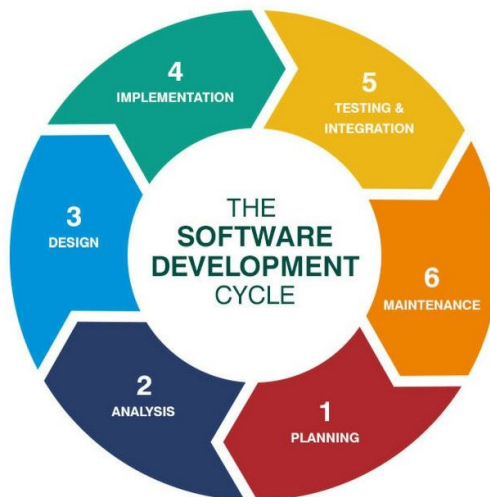
Table of Contents

- ▶ What is DevOps?
- ▶ What is Continuous Integration?
- ▶ Continuous Integration Basics
- ▶ Continuous Delivery vs Continuous Deployment
- ▶ Continuous Integration Server
- ▶ DevOps Tools

1 DevOps Basics

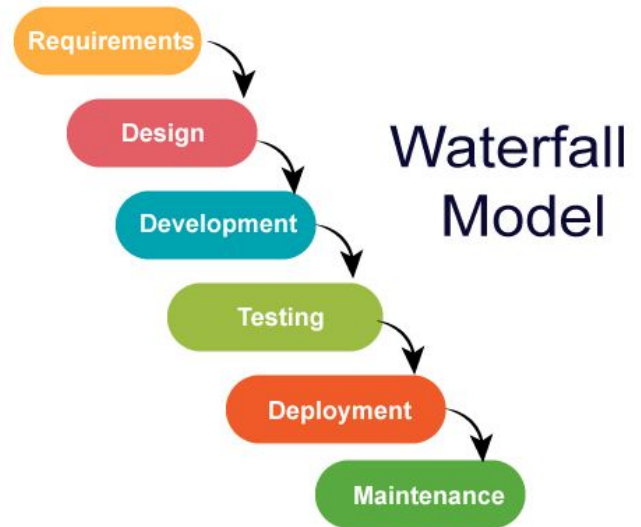
CLARUSWAY
WAY TO REINVENT YOURSELF

What is Devops?



What is DevOps?

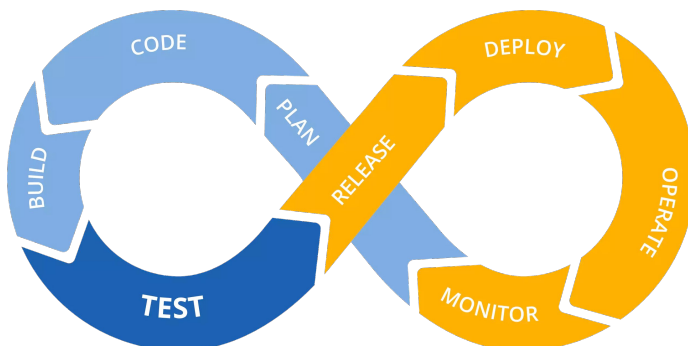
- Each phase completely wrapping up before the next phase begins
- If parameters change along the way, it's harder to change course



5

Introduction to DevOps

What is DevOps ?

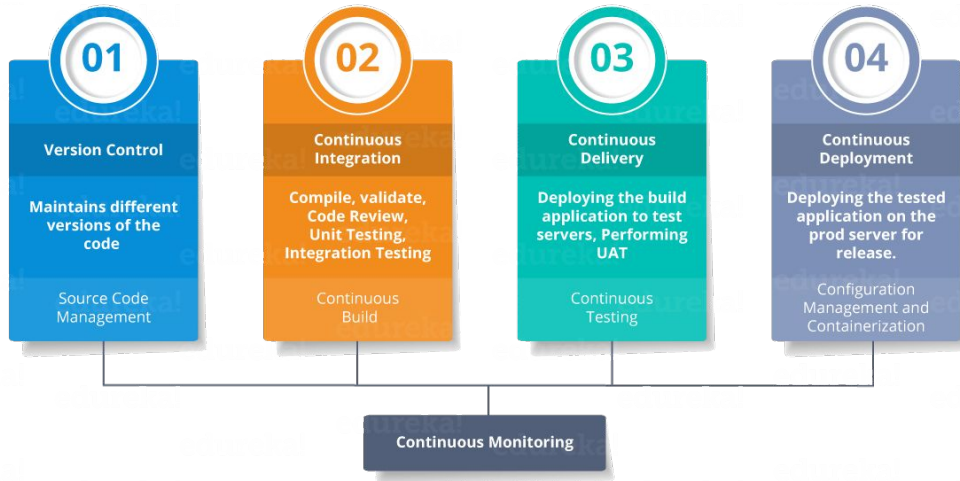


DevOps is a software development approach which involves continuous development, continuous testing, continuous integration, continuous deployment, and continuous monitoring of the software throughout its development lifecycle

6

Introduction to DevOps

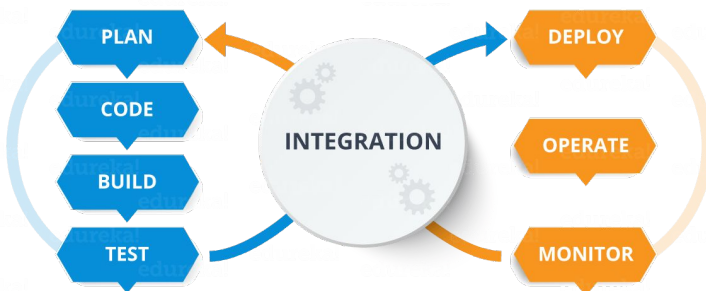
What is DevOps ?



7

Introduction to DevOps

What is Continuous Integration ?



Continuous integration is a software development method where members of the team can integrate their work at least once a day. In this method, every integration is checked by an automated build to search for an error.

8

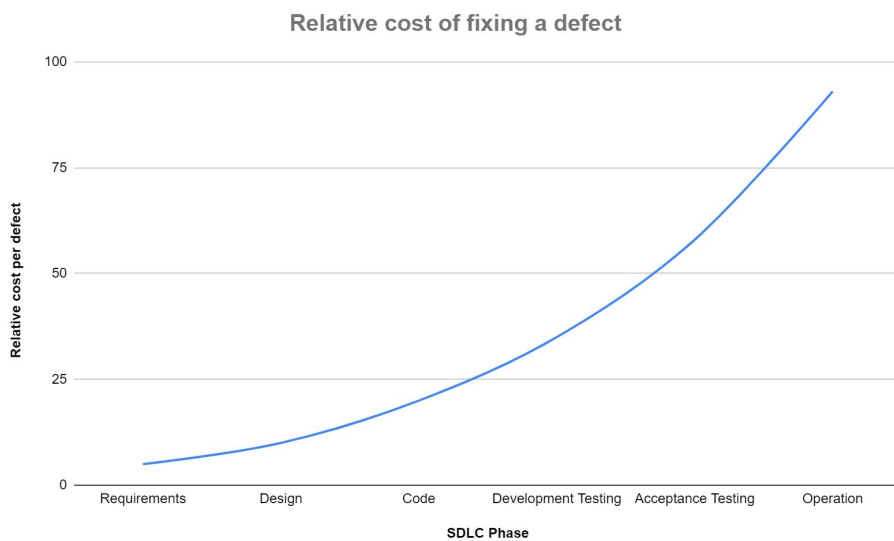
Introduction to DevOps

With CI vs Without CI

Development without CI	Development with CI
Lots of Bugs	Fewer bugs
Infrequent and slow releases	Regular working releases
Difficult integration	Easy and Effective Integration
Late bug finding(days,weeks)	Early bug finding(minutes,hours)
Issue raised are harder to fix	Find and fix problems faster and more efficiently.
Poor project visibility	Better project visibility

9

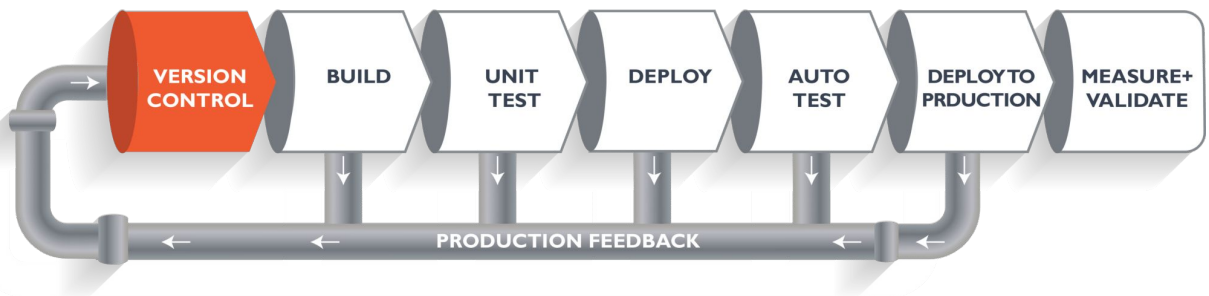
Introduction to DevOps



10

Introduction to DevOps

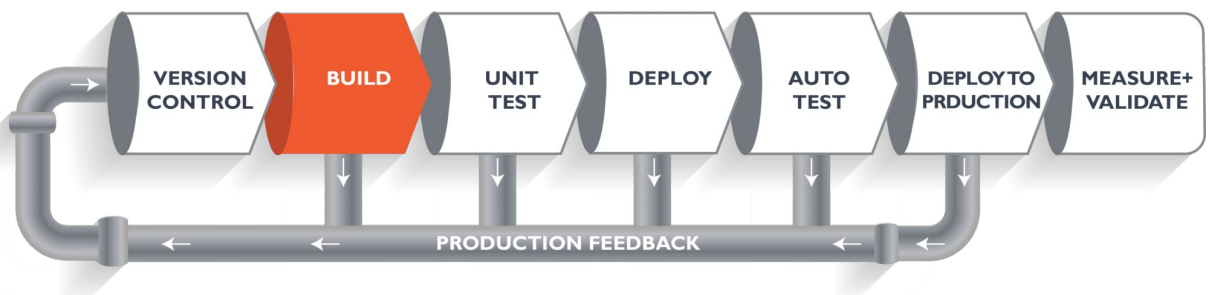
What is Continuous Integration ?



11

Introduction to DevOps

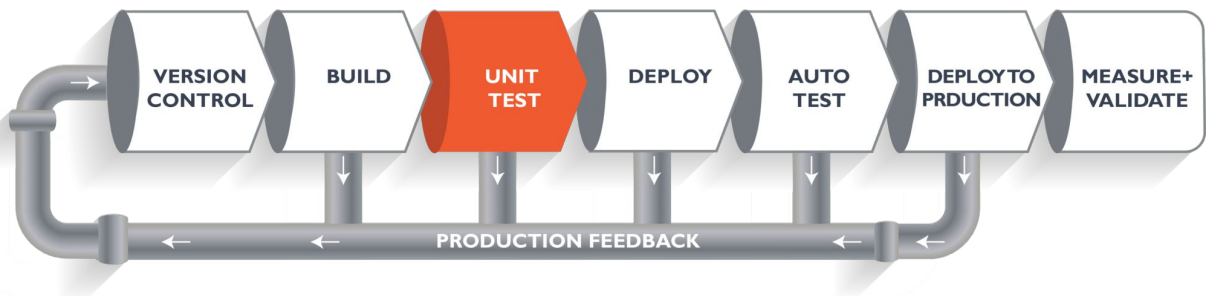
What is Continuous Integration ?



12

Introduction to DevOps

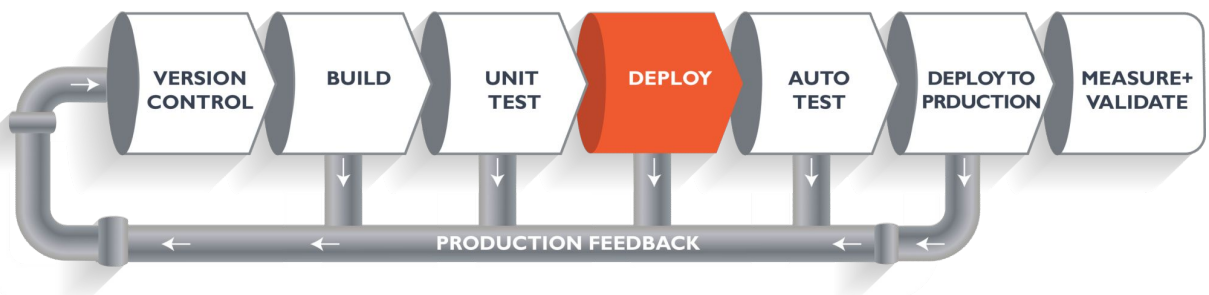
What is Continuous Integration ?



13

Introduction to DevOps

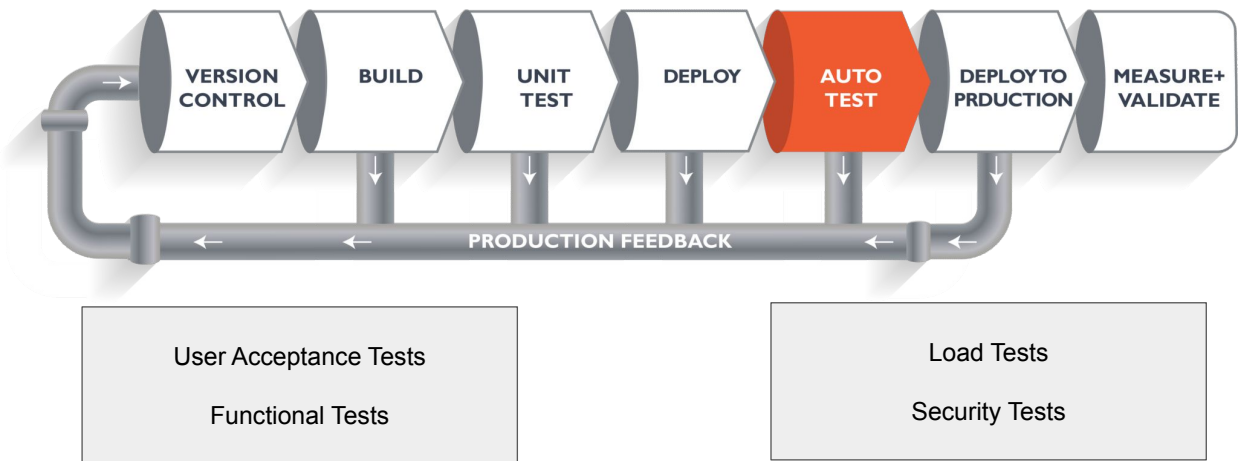
What is Continuous Integration ?



14

Introduction to DevOps

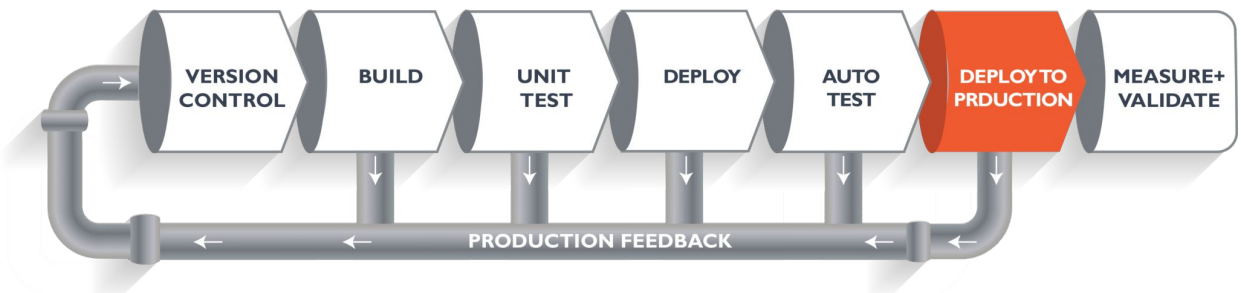
What is Continuous Integration ?



15

Introduction to DevOps

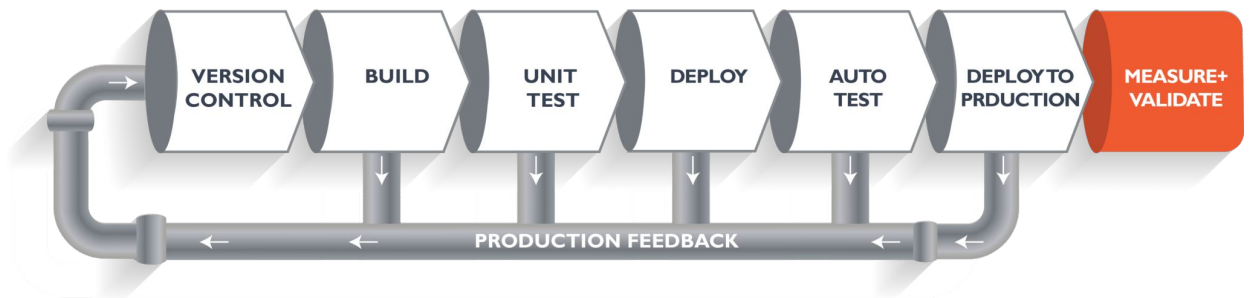
What is Continuous Delivery/Deployment ?



16

Introduction to DevOps

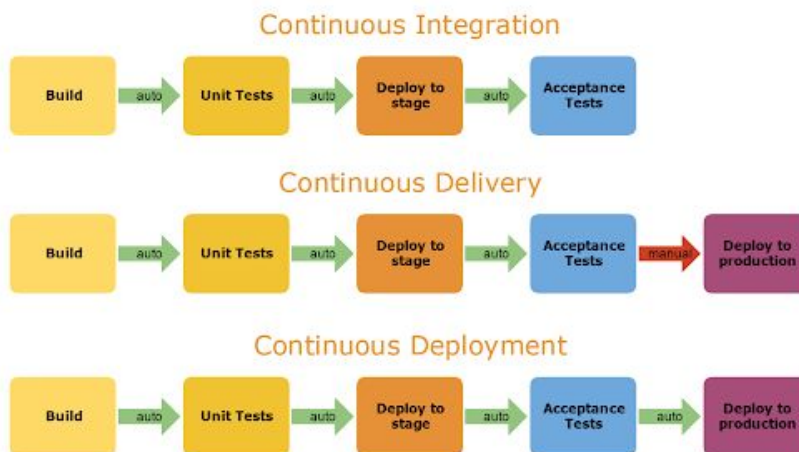
What is Continuous Delivery/Deployment ?



17

Introduction to DevOps

Continuous Delivery vs Continuous Deployment



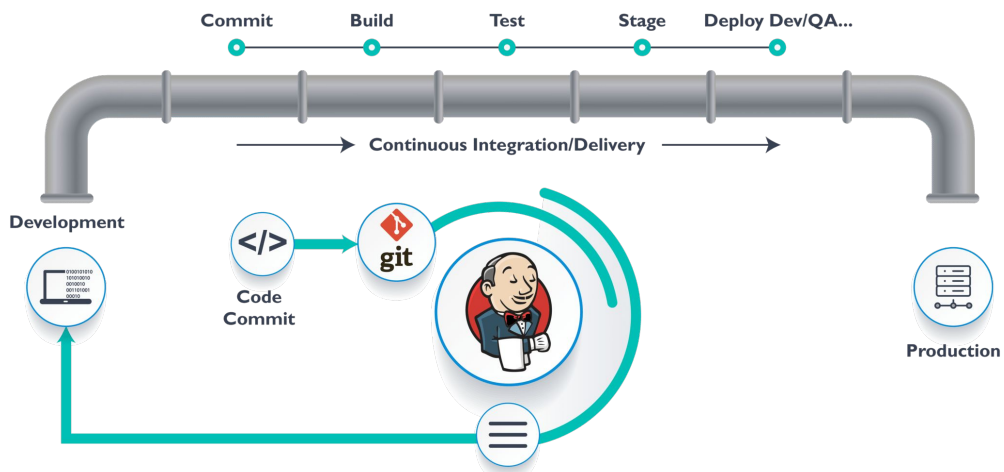
18

2

DevOps Tools

CLARUSWAY
WAY TO REINVENT YOURSELF

Introduction to DevOps Continuous Integration Server



Introduction to DevOps

Continuous Integration Server

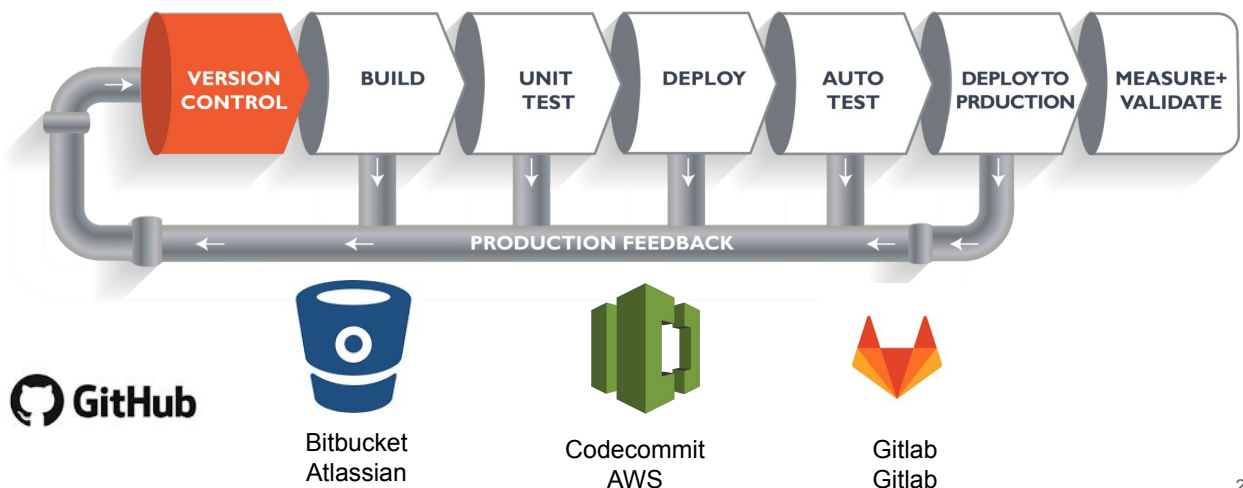


21

Introduction to DevOps

Version Control Stage

EC2
CodeCommit

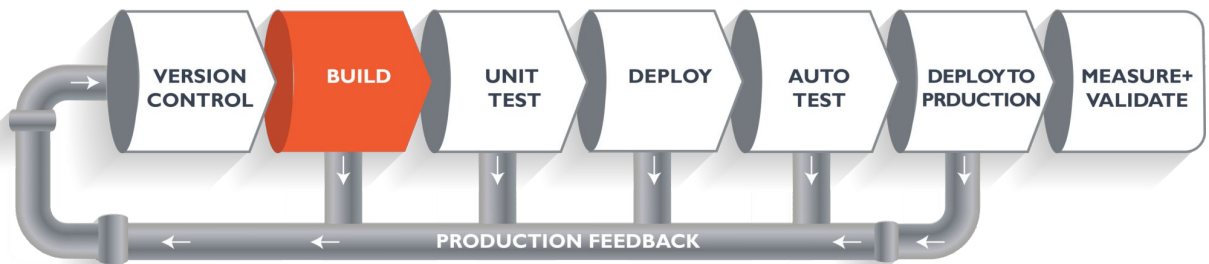


22

Introduction to DevOps

What is Continuous Integration ?

EC2
CodeCommit,CodeBuild
ECS(Elastic Container Service)



Maven

npm

nuget

BASH
THE BOURNE-AGAIN SHELL



Xcode

Gradle



CMake

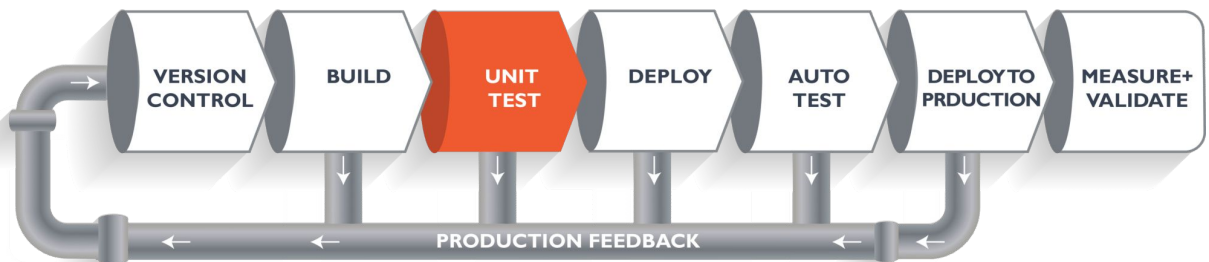


23

Introduction to DevOps

What is Continuous Integration ?

EC2
CodeCommit,CodeBuild
ECS(Elastic Container Service)



JUnit

JACOCO
java Code Coverage

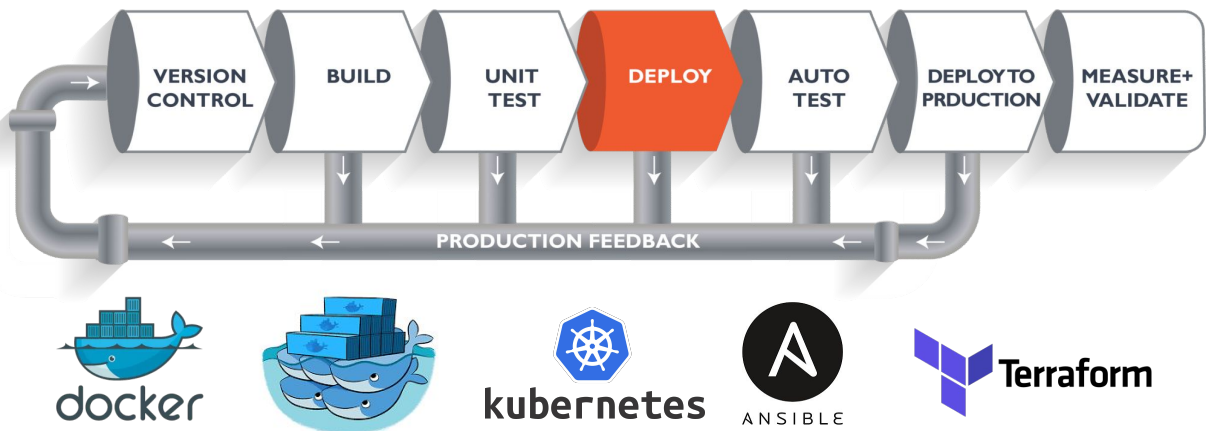
sonarqube

24

Introduction to DevOps

What is Continuous Integration ?

EC2
CodeCommit, CodeBuild, CodeDeploy
ECS(Elastic Container Service)
ECR, S3, RDS, DynamoDB
Cloudformation, Beanstalk
ELB, AutoScaling

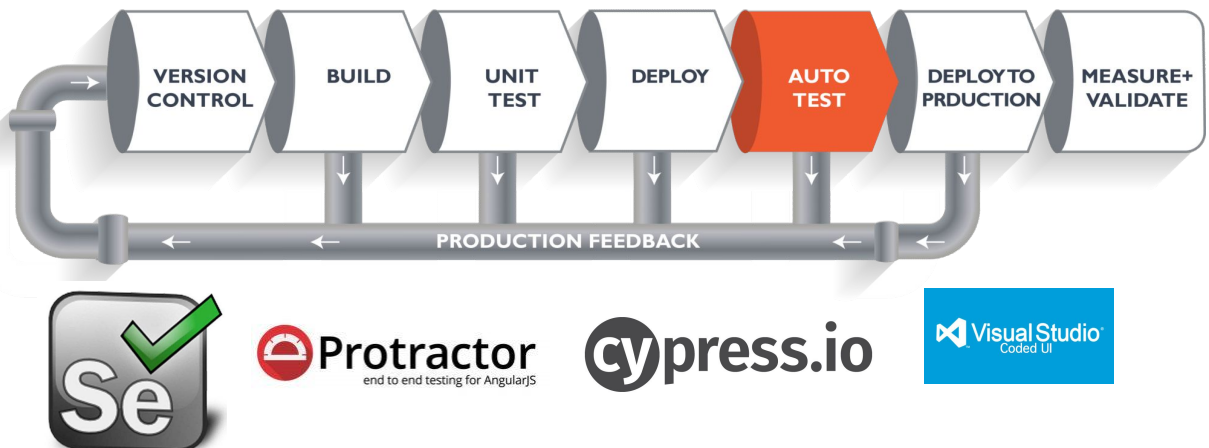


25

Introduction to DevOps

What is Continuous Integration ?

EC2
CodeCommit, CodeBuild, CodeDeploy
ECS(Elastic Container Service)
ECR, S3, RDS, DynamoDB
Cloudformation, Beanstalk
ELB, AutoScaling

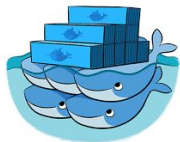
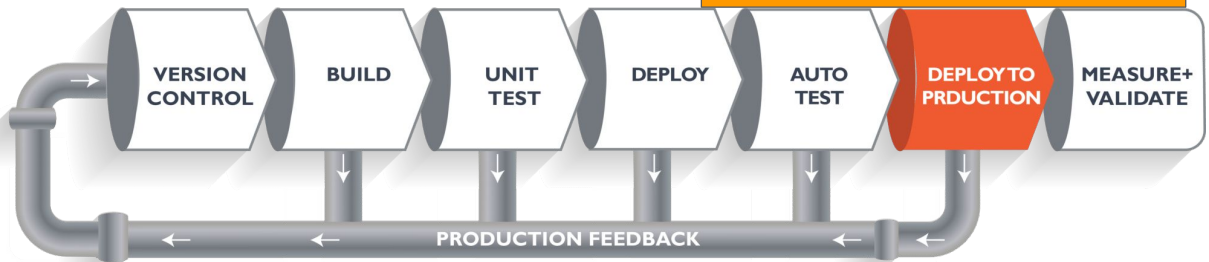


26

Introduction to DevOps

Continuous Delivery/Deployment ?

EC2
CodeCommit, CodeBuild, CodeDeploy
ECS(Elastic Container Service)
ECR, S3, RDS, DynamoDB
Cloudformation, Beanstalk
ELB, AutoScaling
Cloudfront, Route53

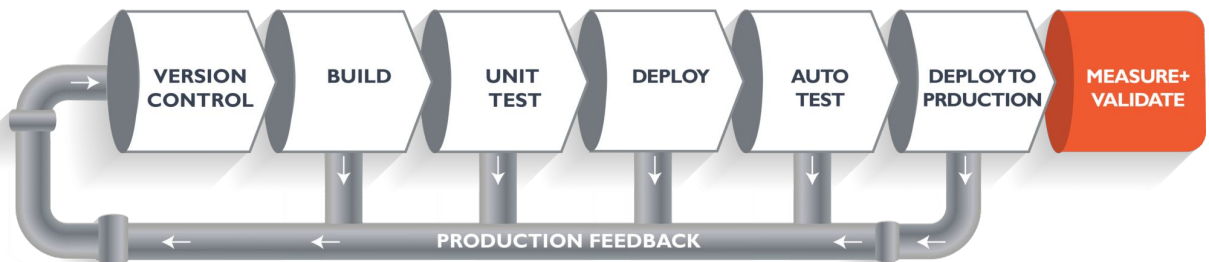


27

Introduction to DevOps

Continuous Delivery/Deployment ?

Cloudwatch
SNS
SQS
SES



28