Devops Series - Introduction

Ahmad Luqman
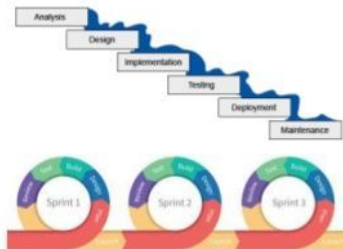
"Change is disturbing when it is done to us, exhilarating when it is done by us."

Rosabeth Moss Kanter
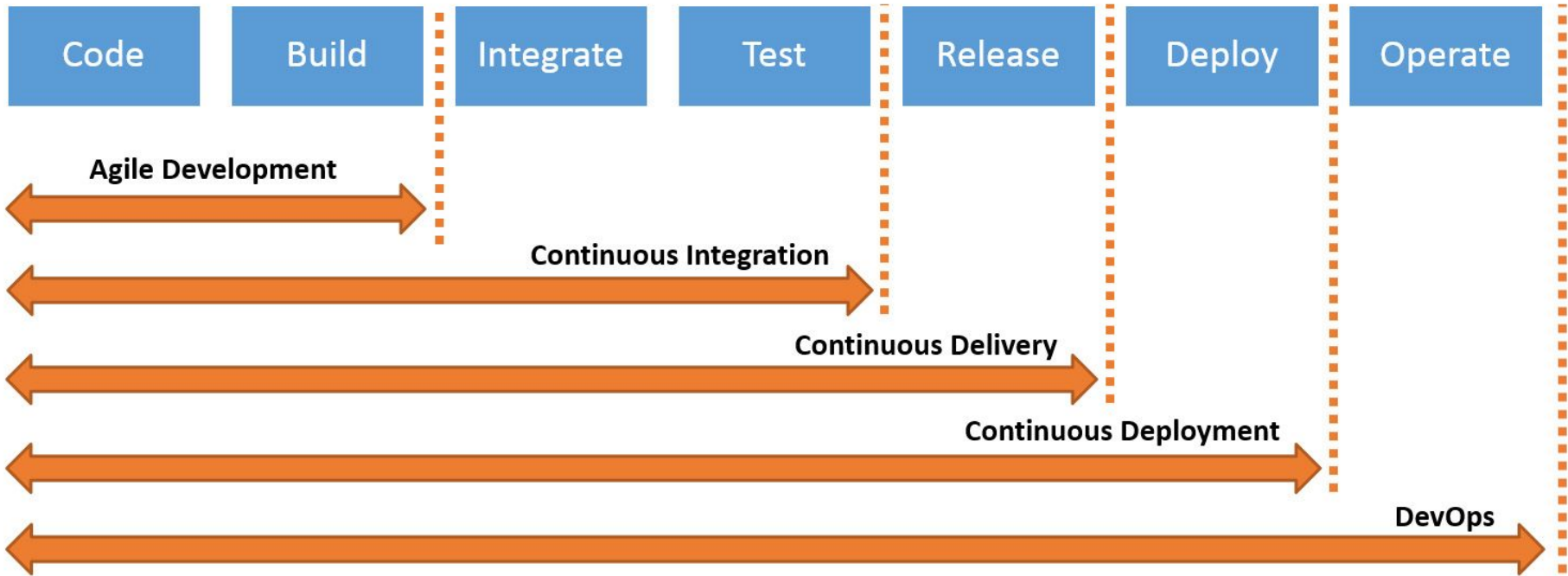
Devops

The word "DevOps" is a mashup of "development' and "operations" but it represents a set of ideas and practices much larger than those two terms alone, or together.

Without Devops
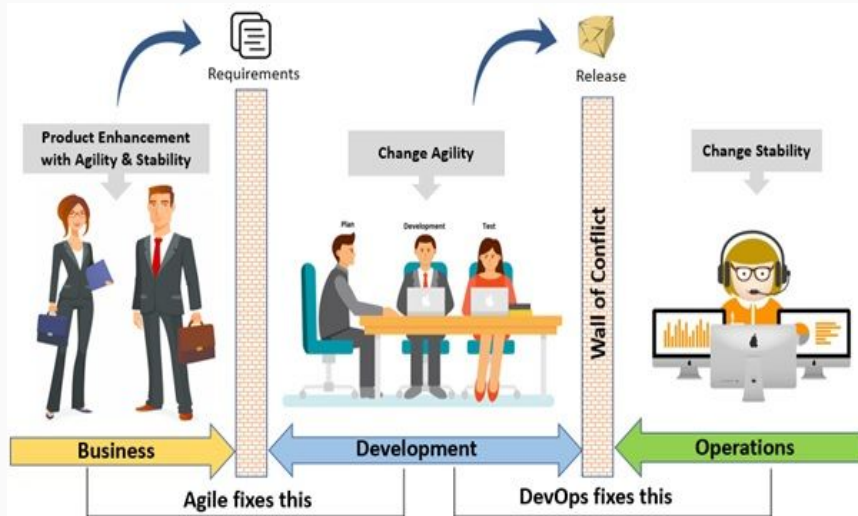
With Devops
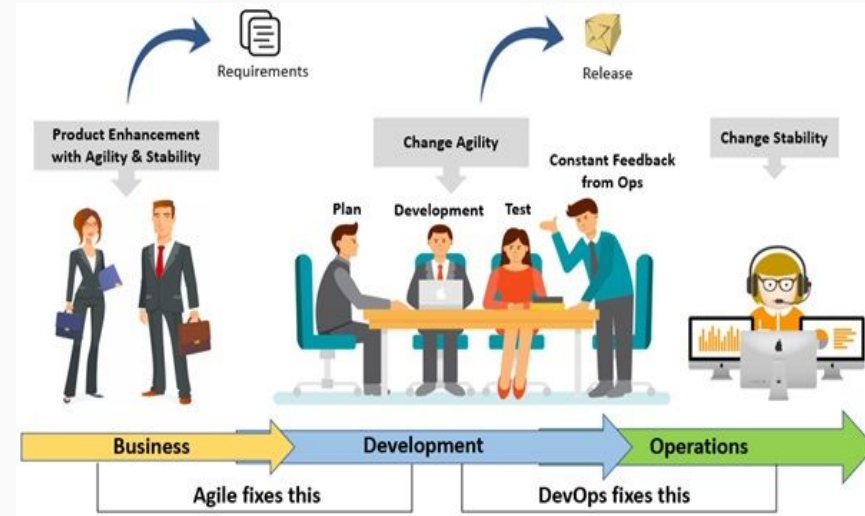
What is Devops?

DevOps is the combination of cultural philosophies, practices, and tools that increases an organization's ability to deliver applications and services at high velocity: evolving and improving products at a faster pace than organizations using traditional software development and infrastructure management processes.

DevOps best practices:

- Continuous Integration

- Continuous Delivery

- Microservices

- Infrastructure as Code

- Monitoring and Logging

- Communication and Collaboration

Collaborate

Application Lifecycle Mgmt.
JIRA · mingle · Trello · Visual Studio Team Foundation Server · PivotalTracker · Basecamp · asana · PHABRICATOR

Communication & ChatOps
slack · Atlassian HipChat · #irc · flowdock · Microsoft Teams · RYVER · Mattermost · ROCKET.CHAT · COG v0.5 · Nestor · LITA · HU-BOT

Knowledge Sharing
github pages · jekyll · Confluence · HUGO · Mark down · Read the Docs · apiblueprint · RAML · FLARUM · graphviz · OPEN API INITIATIVE · Discourse · reddit

Build

SCM/VCS
git · SUBVERSION · mercurial · Gogs · GitHub · Atlassian Bitbucket · GitLab · GitBucket

CI
wercker · snap · TeamCity · Jenkins · Bamboo · drone.io · circleci · go Continuous Delivery · Travis CI · CODESHIP

Build
sbt · Gradle · GRUNT · docker · .js · Maven · Gulp · Nant · APACHE ANT · PACKER · Leiningen · MSBuild · Rake

Database Management
DBmaestro DevOps for Database · DBDeploy · Flocker by ClusterHQ · Flyway · redgate · LIQUIBASE

Test

Testing
Selenium · Jasmine · MOCHA · Se · GAUNTLT · OWASP ZAP · Gatling STRESS TOOL · JUnit · KARMA · N unit · FitNesse · Qu QUnit js unit testing · cucumber · Test NG · js · Galen Framework · LOAD IMPACT · APACHE JMeter · BlazeMeter · pytest · SERVERSPEC · Browsersync · Pa11y · specflow Cucumber for .NET · Newman · Unit.net

Deploy

Deployment
Octopus Deploy · XL DEPLOY · RUNDECK · Capistrano · urban{code} · NOLIO · SSH · JUJU · ElasticBox · Spinnaker

Config Mgmt./Provisioning
puppet labs · CHEF · ANSIBLE · SALTSTACK · CFEngine · PowerShell DSC · VAGRANT · TERRAFORM

Artefact Management
QUAY by CoreOS · DOCKERHUB · docker REGISTRY · Bower · JFrog Artifactory · python Package Index · nuget · archiva · npm · Sonatype Nexus

Run

Cloud / IaaS / PaaS
heroku · amazon web services · Dokku · Flynn · Microsoft Azure · CLOUDFOUNDRY · Google Cloud Platform · Rackspace · openstack · appfog · Engine Yard · DEIS · OPENSHIFT

Orchestration & Scheduling
MESOSPHERE · MARATHON · docker SWARM · kubernetes by Google · Nomad · RANCHER · MESOS

BI / Monitoring / Logging
logstash · elasticsearch · splunk> · Vector · kibana · DATADOG · ZABBIX · APPDYNAMICS · GROK · ZIPKIN · Google Analytics · x-pack · SENTRY · VIZCERAL · Prometheus · New Relic · dynatrace · PINPOINT · Runscope · sensu · Atlas · RIEMANN · APImetrics Intelligent API Monitoring · Grafana · graphite · RAYGUN · STATSD · Rollbar · Airbrake.io · beats · pagerduty · MOOG · OpsGenie · Keen IO

The Phoenix Project

A Novel About IT, DevOps, and Helping Your Business Win

Gene Kim, Kevin Behr, and George Spafford

5TH ANNIVERSARY LIMITED EDITION

The DevOps Handbook

HOW TO CREATE WORLD-CLASS AGILITY, RELIABILITY, & SECURITY IN TECHNOLOGY ORGANIZATIONS
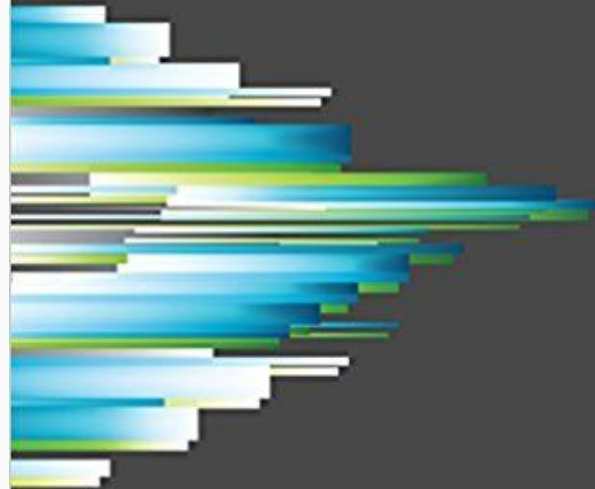
GENE KIM, JEZ HUMBLE, PATRICK DEBOIS, & JOHN WILLIS

FOREWORD BY JOHN ALLSPAW

ACCELERATE

THE SCIENCE OF DEVOPS

Building and Scaling High Performing Technology Organizations

Nicole Forsgren, PhD
Jez Humble and Gene Kim

2018

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Strategies for a New Economy

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