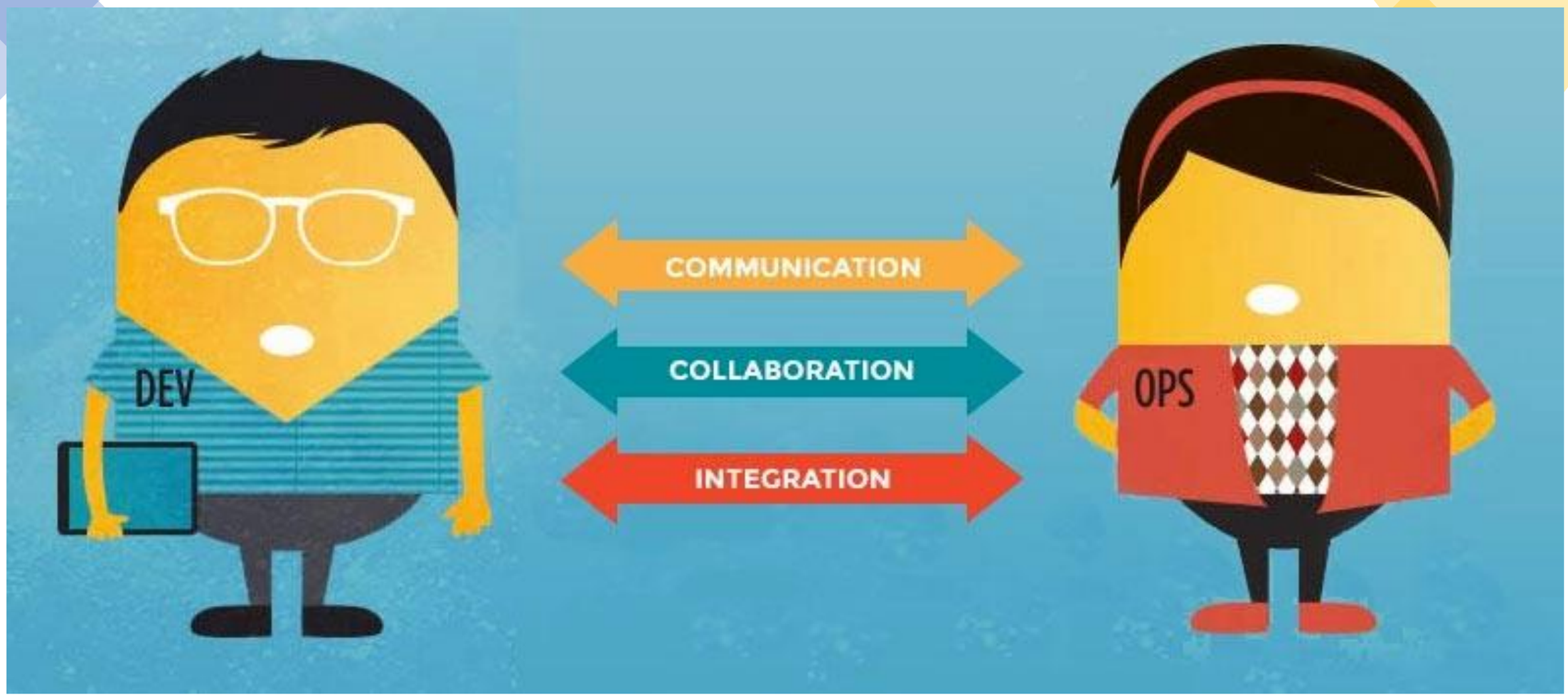

Nitesh Bhat

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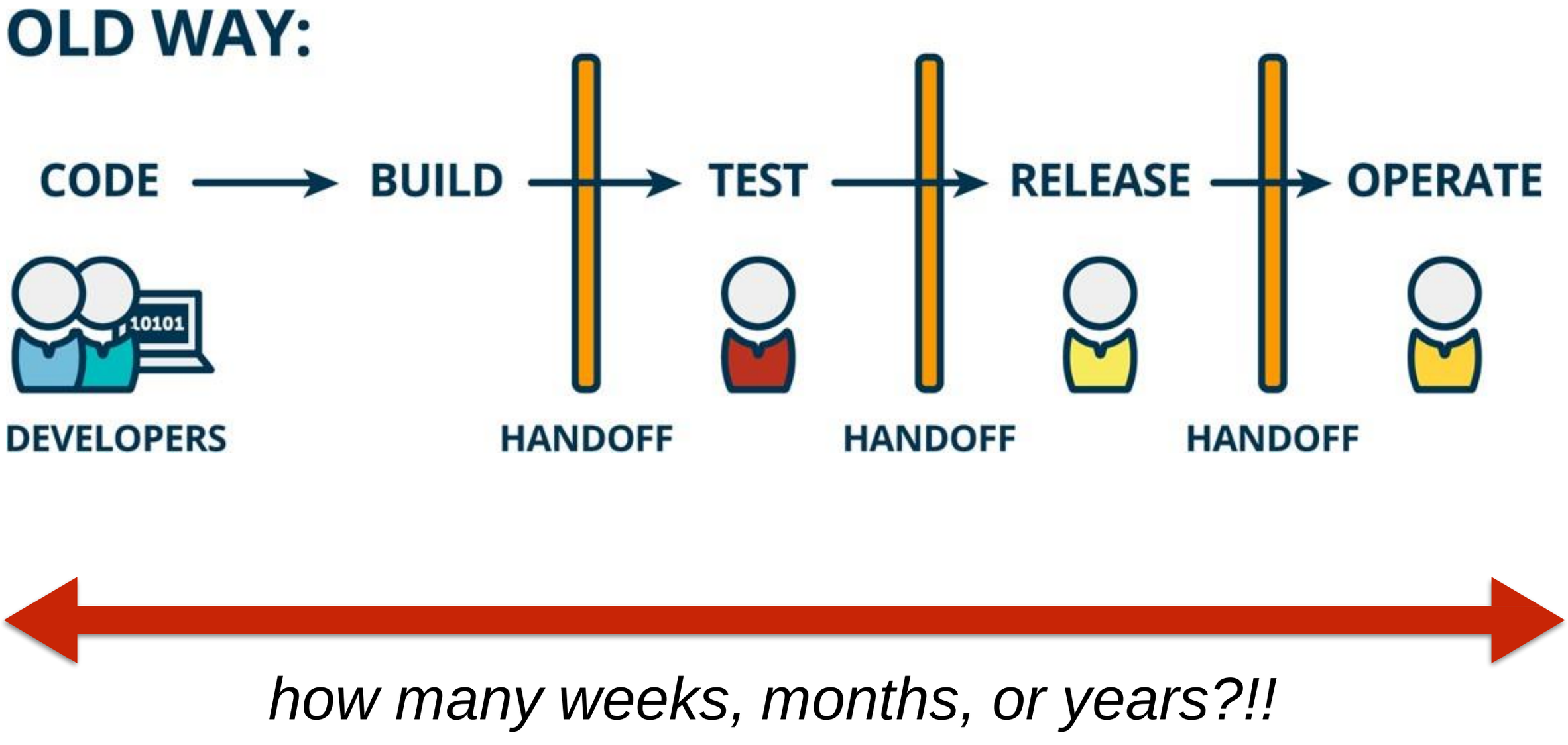
What is DevOps?

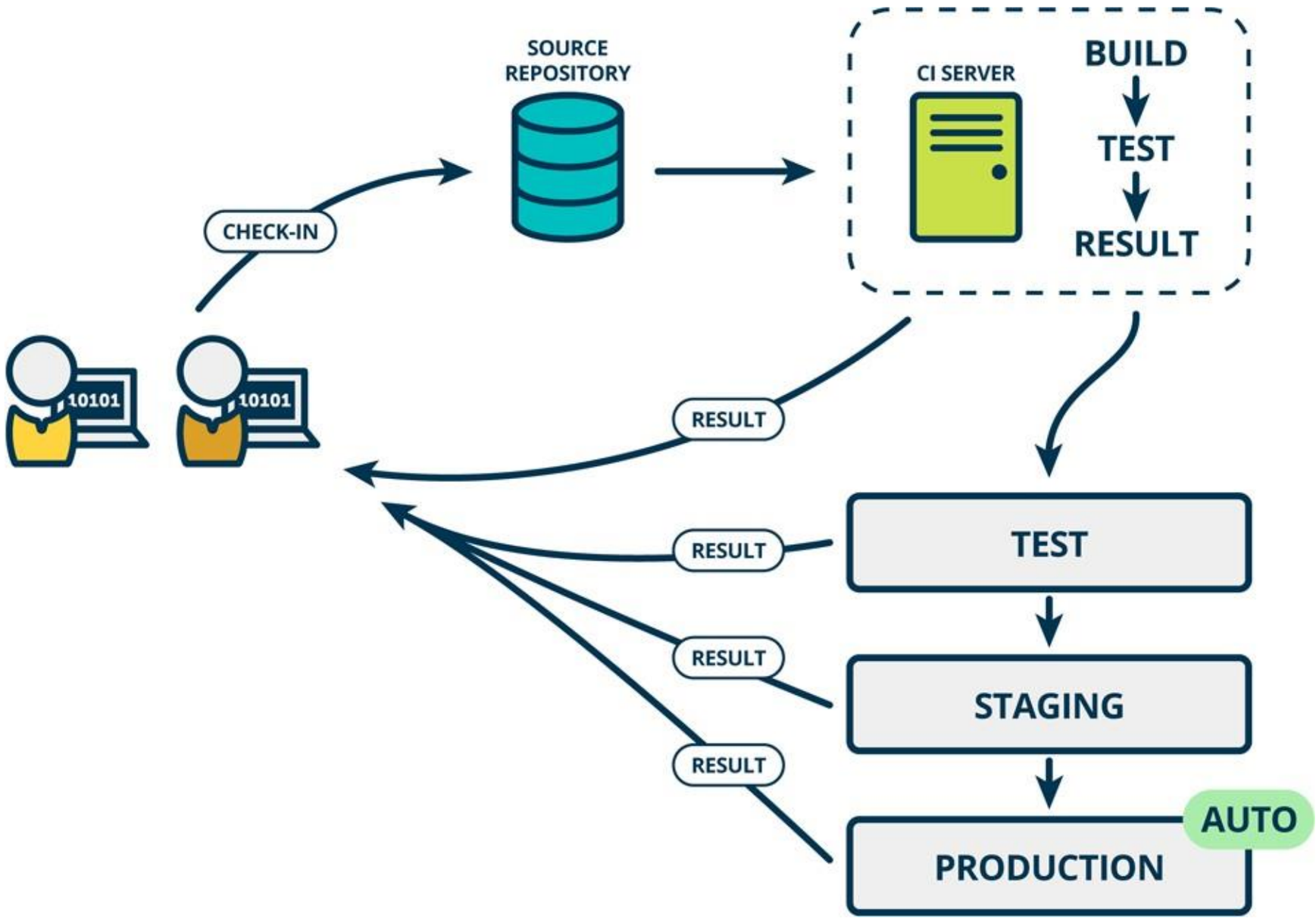
DevOps is a set of practices intended to reduce the time between committing a change to a system and the change being placed into normal production, while ensuring high quality.

Checkin to release => it takes ages!

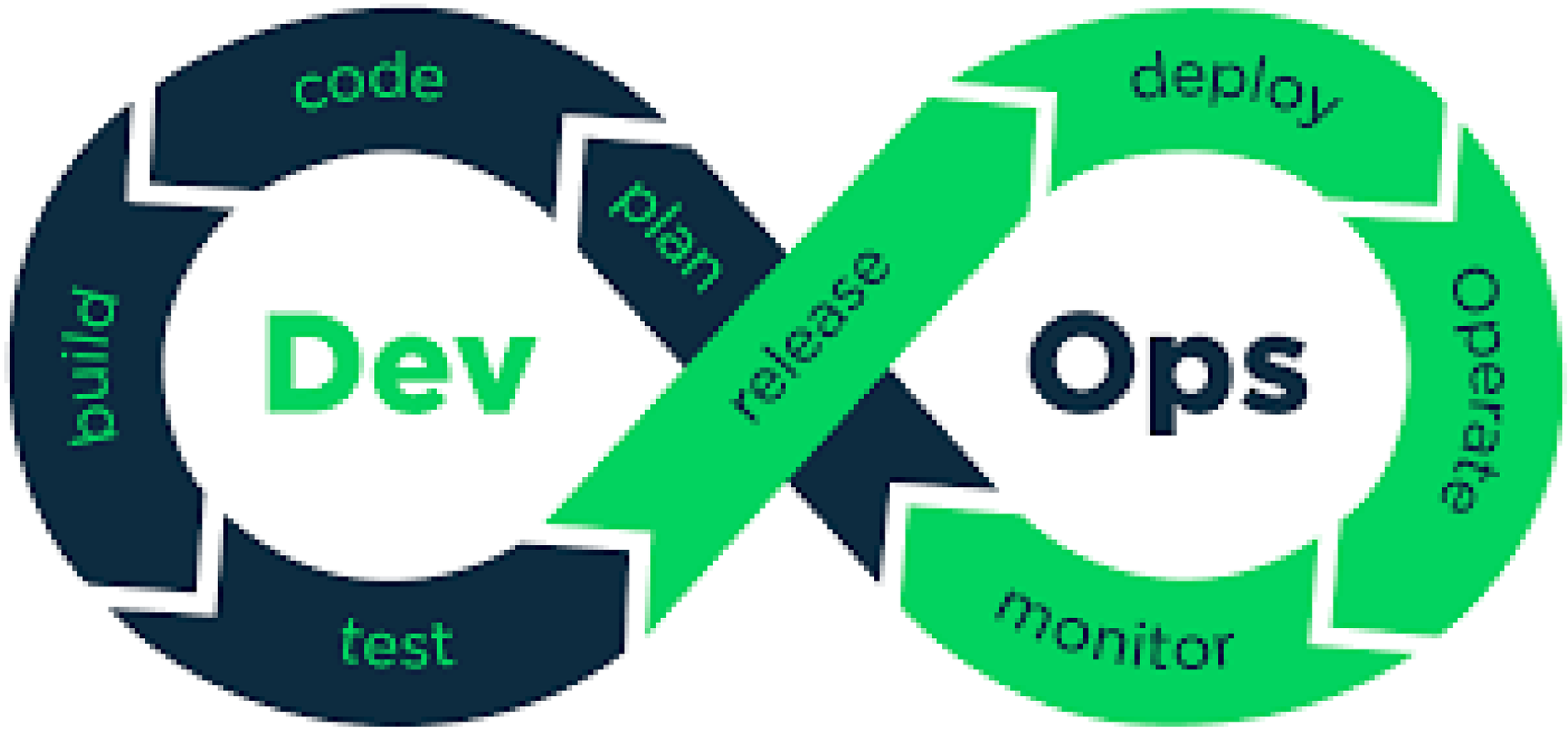


how many weeks, months, or years?!!

DevOps: Lightning fast!



Dev
Ops


code
plan
build
test
release
deploy
operate
monitor
Dev
Ops

DevOps Roadmap

1)Plan

2)Code

3)Build

4)Deploy

5)Test

6)Rebase

7)Configure

8)Monitor

Step 1: Learn a Programming language

Step 2: Learn Tools that need to depend

Build : Maven, MS Build

SCM : GIT, GitHub, bitbucket, TFS

CI : Jenkins, Teamcity, Bamboo

CD : Octopus Deploy

Containerization : Docker,k8s

Step 3: Learn how to run test from → CMD or CI/CD

Step 4: learn cloud service platform → AWS, Azure, GCP

Step 5: learn Infrastructure provisioning → Terraform

Step 5: learn config mazement tool → Chef, puppet, Ansible

Step 6: learn logging & monitor → New Relic, Nagios

DevOps Tools Ecosystem 2021

Build

SCM & VCS
git, Bitbucket, GitBucket, GitLab, GitHub, Azure DevOps

Software Delivery Platform (CI/CD)
GitLab, Azure DevOps, harness, GitHub

Continuous Integration
circleci, Jenkins, Bamboo, Travis CI, Buildkite, codefresh, TeamCity

Build
sbt, GRUNT, Gradle, gulp.js, Maven, Packer, MSBuild

Repositories
JFrog Artifactory, Nexus, npm, docker hub, Amazon S3

Test

Browser
Selenium, Cypress, ARMA, Galen Framework, Browsersync

Load / Performance
JMeter, SOASTA, BlazeMeter, LOCUST, Gatling, LOAD IMPACT

Chaos
Gremlin, Chaos Monkey

Security
tripwire, FORTIFY, BLACKDUCK, OWASP

Code
JUnit 5, QUnit, specflow, cucumber, Jasmine, xUnit.net, pytest, nunit

Deploy

Configuration Management
ANSIBLE, CHEF, Progress, SALTSTACK, puppet, PowerShell, CFEngine

Continuous Deployment
Spinnaker, go, JENKINS X, argo, urban {code}, Octopus Deploy

Infrastructure Provisioning
Terraform, pulumi, CloudFormation

Secrets Management
HashiCorp Vault, CYBERARK

Run

Containers
docker, rkt

Orchestration
RANCHER, kubernetes, Nomad, Pivotal Cloud Foundry, RED HAT OPENSHIFT

Compute
Microsoft Azure, aws, Google Cloud Platform

Serverless
λ, Google Cloud Functions

Run-Time
Java, php, python, Ruby, node, .NET

OS
Windows Server, ubuntu, CoreOS, redhat

DB
MySQL, mongoDB, PostgreSQL, DynamoDB, Cassandra

CDN
Akamai, fastly, CLOUDFLARE, instartlogic

Monitor

Time-Series Metrics

Synthetic / Availability
pingdom, catchpoint, Apica, keynote, gomez

Big Data
unravel, Anodot

Cloud Cost
harness, kubecost

Unstructured Data

Application Errors
bugsnag, OverOps, SENTRY, Rollbar, Stackify, Airbrake.io, RAYGUN

Application (APM)
New Relic., DATADOG, INSTANA, dynatrace, CISCO AppDynamics

Observability
honeycomb, OBSERVE, Lightstep

Cloud Infrastructure
STATSD, Prometheus, WAVEFRONT, Grafana, splunk>, zenoss, Google Stackdriver, CloudWatch

Traditional Infrastructure
ScienceLogic, Nagios, System Center Operations Manager, zenoss

Network
ThousandEyes, ExtraHop, LogicMonitor, solarwinds

Log Events
splunk>, sumologic, LOGGLY, logz.io, elastic, logstash, kibana, SCALYR

Manage

AIOps
Moogsoft, signifai, servicenow, bigpanda, RESOLVE, dynatrace, harness

Service Desk
servicenow, bmc, JIRA, Moveworks

Project Management
asana, PivotalTracker, JIRA, Trello

CRM Helpdesk
zendesk, freshdesk

Notify

Escalate
pagerduty, (x) matters, everbridge, splunk>, OpsGenie, FireHydrant

Collaboration
slack, HipChat, Microsoft Teams, box, twilio

NOW, ARE THERE
ANY QUESTIONS?

Free Books

https://github.com/Niteshbhat/Free-DevOps-Books-1

Thank YOU