# **Compétences:**

- Bases en linux
- Management de serveur linux
- Visualisation
- Networking

## Step 1

- Basics of Linux
- Server Management in Linux
- Vagrant
- Basics of networking
- Project
  - Vprofile Project Intro & Setup on VM's

## Step 2

- Bash Scripting
- Basics of scripting
- Variables, Conditions, Loops etc
- Automating day to day admin tasks

## Step 3

- Cloud Computing Intro
- IAM
- Ec2 Instances, EBS Volumes, ELB
- S3
- Cloudwatch
- RDS
- Autoscaling
- Route53
- Project
  - o AWS Cloud For Project Set Up Lift & Shift
  - Re-Architecting Web App on AWS Cloud [PAAS & SAAS]

### Step 4

- Version control system = Git & GitHub
- Build Tools | Build & Test Java Code = Maven

- Continuous Integration Intro
- Jenkins
  - Jenkins as a Build Server
  - Jenkins Jobs | Build , Test, Deploy, Notify
  - Jenkins Master/Slave, Nexus, Sonarqube
  - o Jenkins CI Pipeline
  - o Jenkins Administration

### Project

o Continuous Integration Using Jenkins, Nexus, Sonarqube & Slack

## Step 5

- Python Scripting
- Basics of python programming
- vars, datatypes, conditions, loops, function, modules etc
- Pythons for automating OS tasks

# Step 6

- Ansible Intro
- Ad Hoc commands
- Modules
- YAML into
- Playbooks
  - o vars, conditions, loops,
  - o handlers, templates etc etc etc
- Variables deep dive
- Roles
- Ansible for AWS
- Project
  - Continuous Delivery and Configuration Management [Jenkins plus Ansible]

## Step 7

- AWS Part 2
- VPC in depth

- Log management and custom metrics
- Project
  - Vprofile on Beanstalk & RDS
  - o Code Commit, Code Build & Code Pipeline
  - CI & CD on AWS Cloud for Vprofile Project
  - o Beanstalk, RDS, CodePipeline etc

### Step 8

- Docker Intro
- Understanding and Implementing Containers
  - Volumes, Network, logs etc
- Building Images for Vprofile project
- Docker compose to run vprofile multi containers
- Kubernetes Intro
- Kubernetes setup for production Env
- Kubernetes objects
  - o Pods, Services, Controllers, Deployment
  - Replication, Autoscaling, Resource quotas, secret, configmap, namespace.
- Project
  - Vprofile Project deployment on Kubernetes

### Step 9

Terraform for AWS Cloud automation

### Step 10

## Project on GitOps

### Ce que vous allez apprendre

- Learn DevOps from total scratch
- AWS, Linux, Scripting, Jenkins, Github Actions, Ansible, Docker, Kubernetes, Terraform & many more
- Understand how various technologies work together in DevOps & GitOps
- Get a firm understanding in DevOps Processes, Tools & Technologies