

DEVELOPMENT AND OPERATIONS {DEVOPS}

Syllabus :

Introduction, Linux, GIT, Chef, GITLAB, Docker, Ansible, CI/CD (Jenkins), Nagios, Kubernetes, HELM, Terraform

II Environment Setup :

[I] Create an EC2 Instance

1. Name and tags Devops Batch Server
2. Application and OS Image (Amazon Machine Image)
AMI → OS, Application Server & applications
↳ Amazon Linux
64 Bit (x86)
3. Instance Type t2.micro
4. Key Pair → Devops-Batch → RSA → .pem
(privacy enhanced mail)
5. Network Setting SSH → Anywhere
6. Configure Storage 1 x 8 GiB gp3
Download .pem file

Launch Instance

[II] PuTTYgen (PuTTY Key Generator)

puttygen.exe (an SSH authentication agent for putty)

↑
Direct executable file

Copy IPv4 Public IP ← EC2 Instance (linux key)

PuTTY GEN → Load → Save private key
↑
Select your ppk file
.pem file → .ppk file (PuTTY Private Key File)

[III] PuTTY

putty.exe (the SSH and Telnet client itself)

PuTTY → SSH → AUTH → Open putty
↑
Paste your public IP address
↑
Browse your ppk file

login as: ec2-user

// Introduction

Devops is not a technology, it is a methodology.

Why organisations need devops specialist

1. fast delivery :

Need so that it will fulfil customer requirement

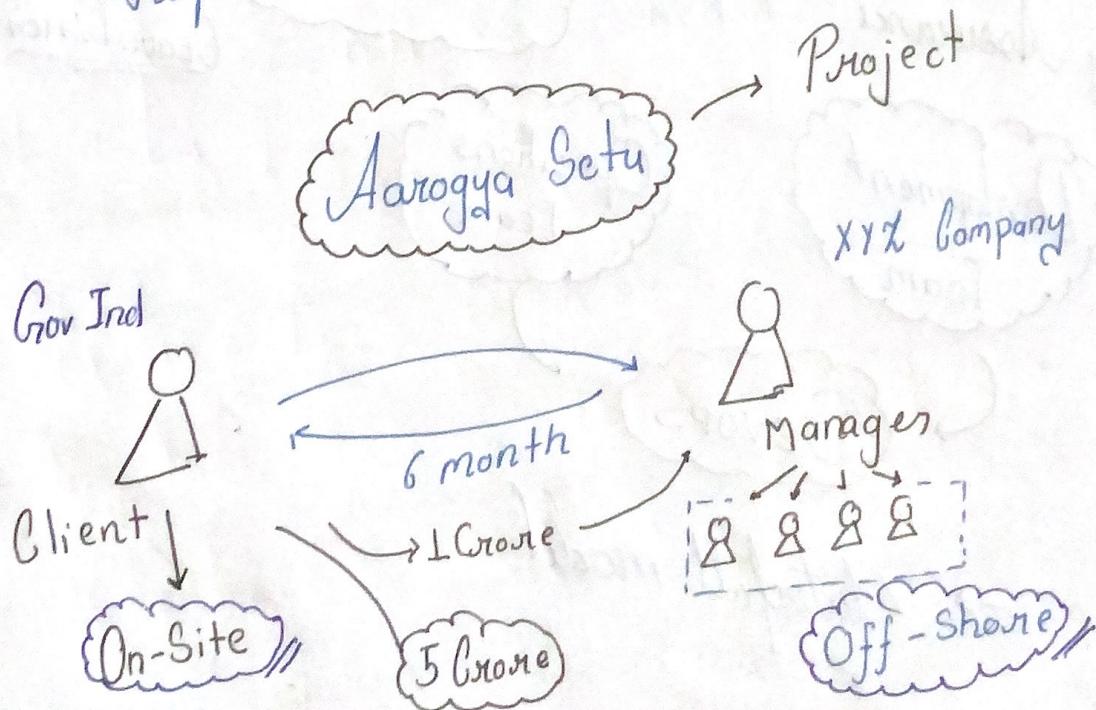
2. Higher Quality :

To keep relevant in the market

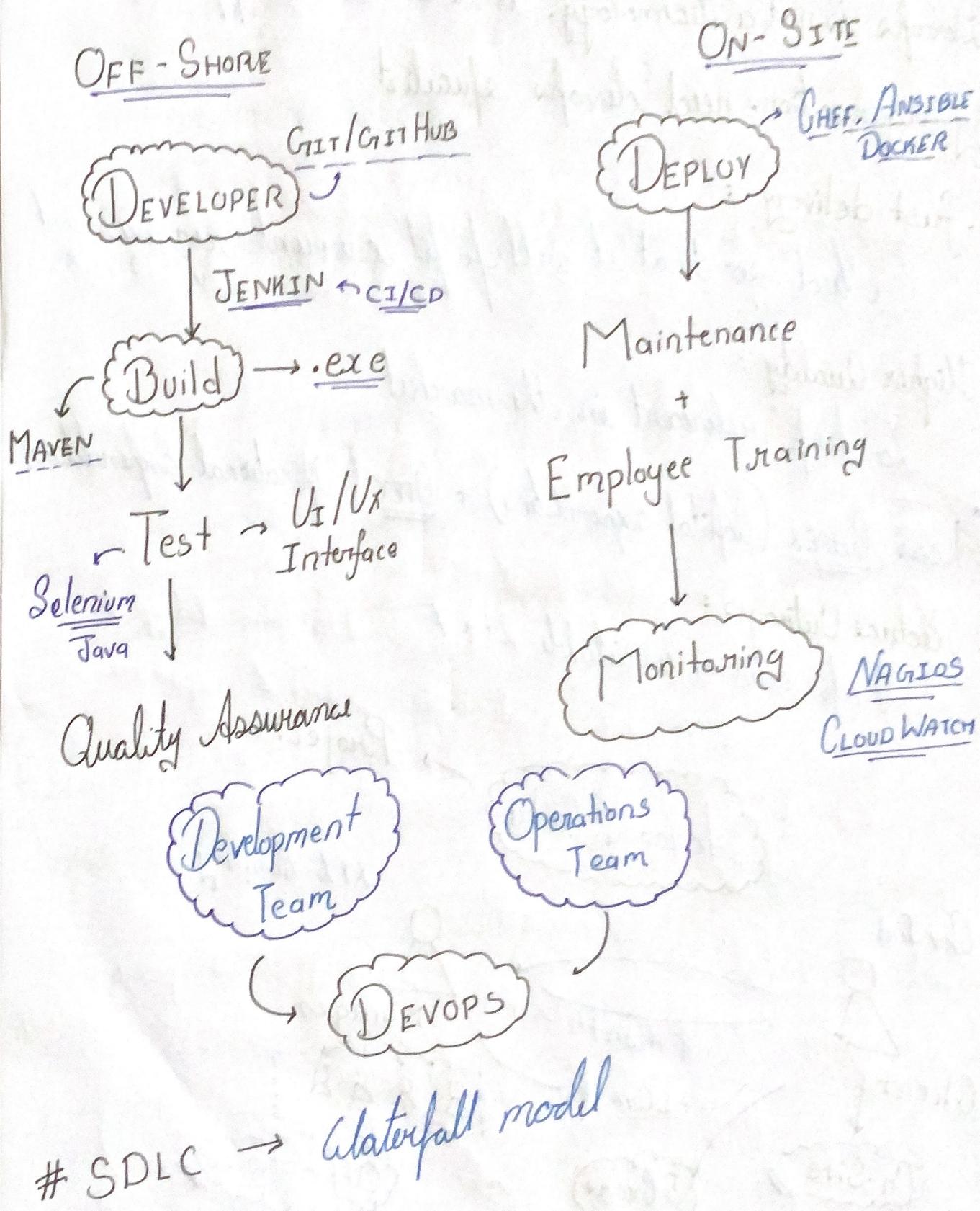
3. less CAPEX (Capital Expenditure) + OPEX (Operational Expenditure)

4. Reduce Outages :

Keep service available 24x7



II SDLC : Software Development Life Cycle



Devops: Implementing automation at each and every steps

Devops stages

1. Version Control:

Maintaining different version of the code

(GIT)

2. Continuous Integration:

Compile, Validate, Code review, unit testing, integration testing

(Jenkins)

3. Continuous delivery:

Deploying the build app to the test server

(Maven)

4. Continuous Deployment:

Deploying the test app on the production server for release

* Devops is a methodology that allows a single team to manage the entire application development life cycle, i.e., ~~development~~, testing, deployment and operations development

- The objective of Devops is to shorten the system's development life cycle. SDLC ↓
- Devops is a software development approach through which superior quality software can be developed quickly and with more reliability.

