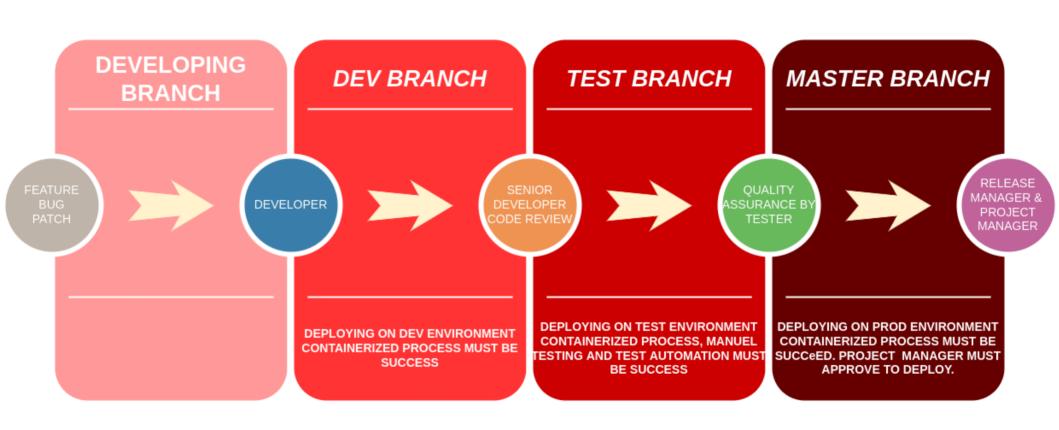
Serhat Düzen

Devops Engineer

30 April 2022

Assignment-1:

BRANCH POLICIES



ENVIRONMENTS

RELEASE & DEPLOYMENT PROCESS

DEV ENVIRONMENT TEST&STAGING ENVIRONMENT MASTER/PROD ENVIRONMENT

CONTAINERIZED ENVIRONMENTS

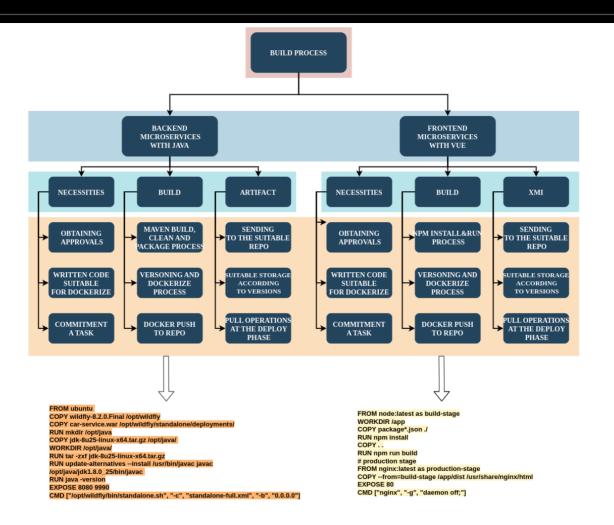
CI-CD WITH JENKINS

IF IT IS KUBERNETES ENVIRONMENT, HELM IS USEFUL

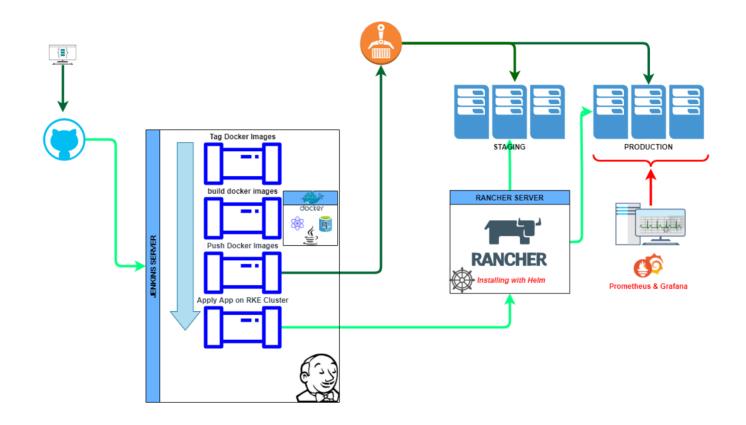
WITH DOCKER CLUSTER TERRAFORM SHOULD BE USEFUL

HELM HAS ROLLBACK OPPORTUNITY.
THIS PROVIDES US, RELEASE CAN CANCEL
PREVIOUS ENVIRONMENT CAN BE ACTIVE

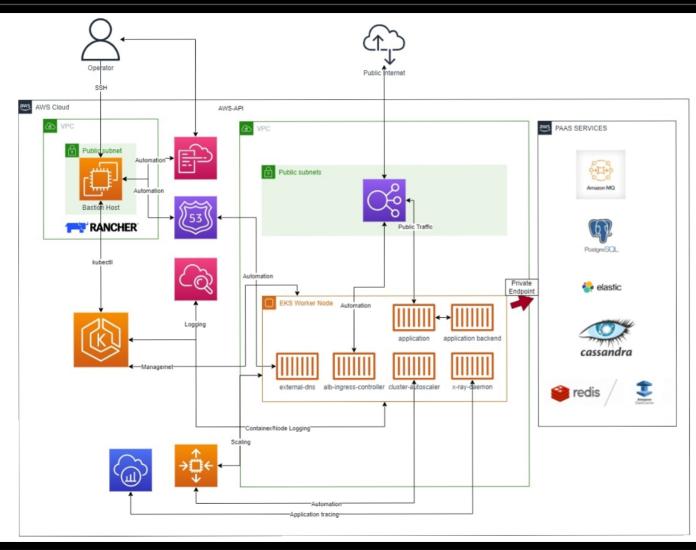
BUILD PROCESS



CI is triggered by webhook or an other trigger.



I think, the architecture on this table is scalable, powerful, responsive to needs and persistent.





Monitoring is managed by Prometheus&Grafana. They are installed in EKS.

In EKS, exporter pods are installed to monitor EKS and PAAS Infrastructure Services.

Cost Optimization is handled a few ways.

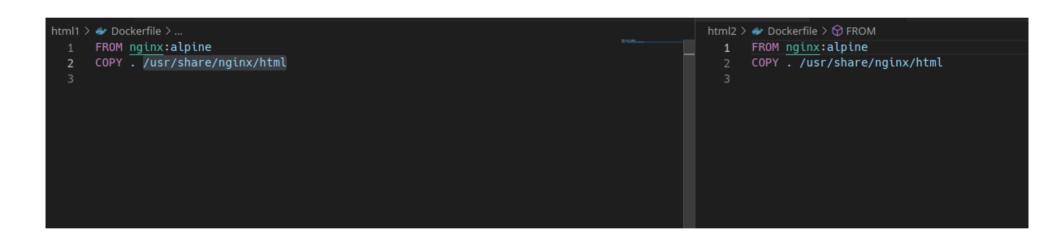
- EKS can have auto scaler. if resource usage is low, few nodes will run. If there is a load, it will increase the number of nodes.
- Since infrastructures are on paas, they will have a pay-as-you-go structure. Thus, server management and auto scaling will be done automatically by AWS.

Assignment-2:

Create two repositories

```
<!DOCTYPE html>
                                                                                               <!DOCTYPE html>
<html lang='en'>
                                                                                               <html lang='en'>
  <meta charset='UTF-8'>
                                                                                                 <meta charset='UTF-8'>
 <title>Docker Deployment</title>
                                                                                                 <title>Docker Static HTML Deployment</title>
  <link rel="stylesheet" href="styles.css">
                                                                                                 <link rel="stylesheet" href="styles.css">
  <div class="container">
                                                                                                 <div class="container">
   <h1>Hello World</h1>
                                                                                                  <h1>Bye World</h1>
```

Dockerize this projects



https://github.com/SerhatDuzen1/helloworld

https://github.com/SerhatDuzen1/byeworld

Docker Swarm Creation

 https://github.com/SerhatDuzen1/30april/blob/m ain/docker-swarm-infrastructure-cfn-template.y ml

Docker Compose

https://github.com/SerhatDuzen1/30april/blob/main/init-letsencrypt.sh

https://github.com/SerhatDuzen1/30april/blob/main/docker-compose.yml