

DEVOPS ENGINEER

Akmal Ikhsan

I am a DevOps Engineer with experience in dumbways bootcamp automating and optimizing server infrastructure, keep learning and acquiring new knowledge and skills, i'm under pressure to learn quickly, interested in new Technology and enjoy working in the IT industry.

Contact

☎ 0822-1972-6859

✉ akmalikhsan02@gmail.com

🌐 <https://github.com/AkmalFounder>

🌐 <https://www.linkedin.com/in/akmal-ikhsan/>

Achievements

- Top Social Project Innovillage with the title Automatic Feeding Box
- The best team at the Unpad Himatif Festival Informatics Technopreneur 2020

Skills

- Nginx
- Web Design
- Git
- Microsoft Office
- PHP
- Ansible
- Cloud Computing
- OOP
- Laravel
- Mysql
- Linux
- Monitoring(Grafana, Prometheus)
- CI/CD(Jenkins, Cloudflare)
- Docker
- Design

Education

● MA. UMMUL QURO AL-ISLAMI

2015-2018 SCIENCE ONE

● TELKOM UNIVERSITY

2018-2022 S1 TEKNIK INFORMATIKA

Experience

(2021)

PRACTICAL WORK AT TELKOM CYBER PHYSICAL SYSTEM

- Create TA Database System
- Make the process of tracking TA student Informatics data by scraping

(2022)

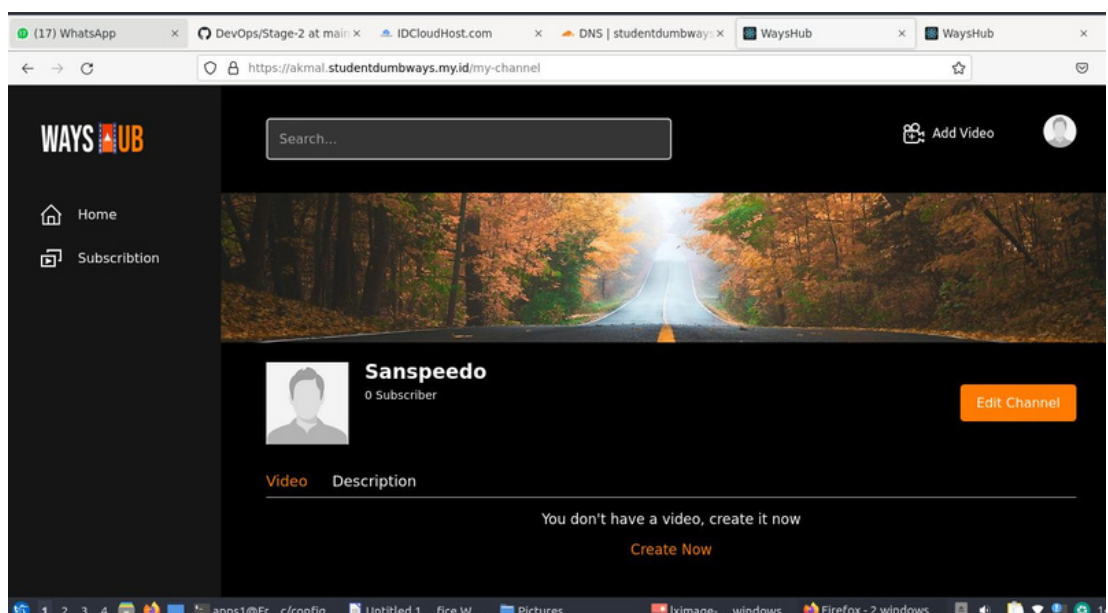
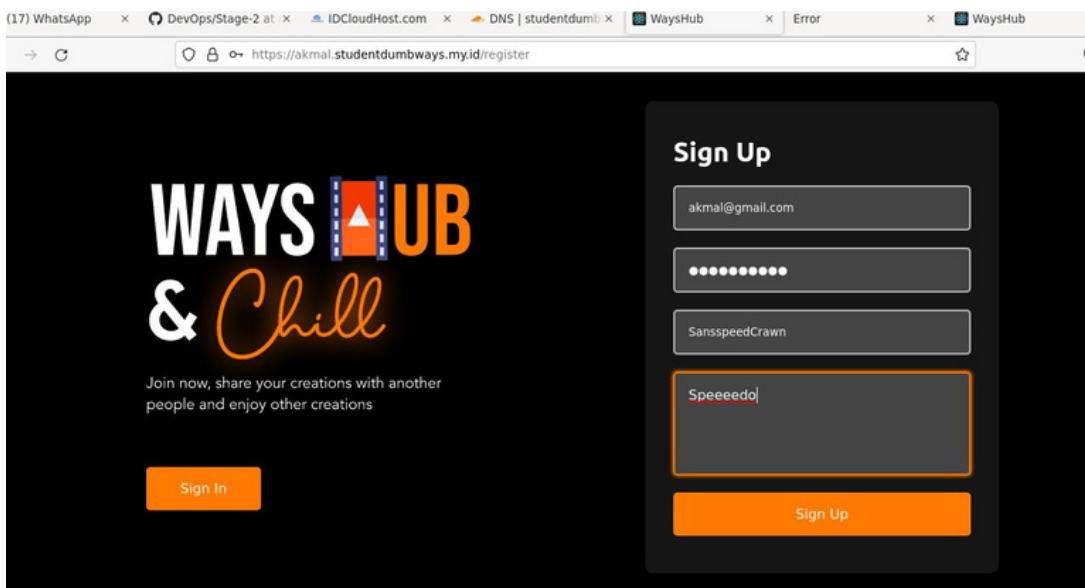
FOLLOWING BOOTCAMP DUMBWAYS

- Maintained Git workflows for version control(Source Code Management)
- Developed and maintained automated CI/CD pipelines for codes deployment using Jenkins
- Provisioned Servers and deployed features using Ansible
- Built and deployed Docker containers for implementing Microservice Architecture from Monolithich Architecture
- Orchesrated Docker container cluster using Docker Swarm

PORTFOLIO

DEVOPS

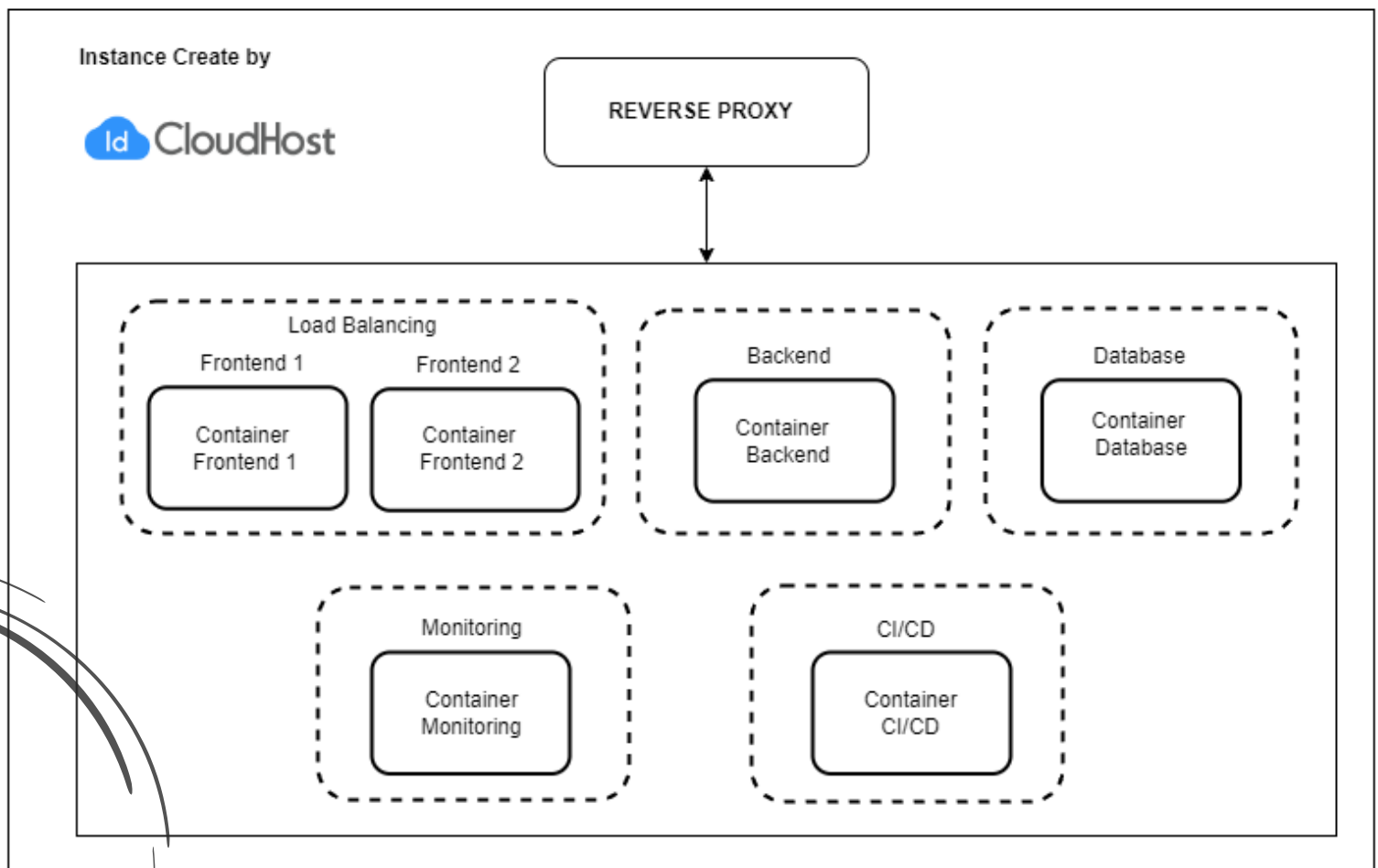
Wayshub app deployment



Architecture

Application is running at IDCloudhost server. Implementing load balancing for frontend server, so the server will share load and stabilize server and also if a server is down the others can work as backup server.

All application are packed in container using Docker. Automated updates using CI/CD Jenkins. Server is monitored by Prometheus and Grafana.



ANSIBLE

Created ansible configuration will be executed to apply all server requirements like installation docker, making docker container for node exporter, prometheus, jenkins, and grafana.

```
! nginx.yml  Inventory  ! docker.yml x
home > are > ansible-ku > ! docker.yml
1  - hosts: all
2  become: yes
3  gather_facts: yes
4  tasks:
5      - name: 'update'
6        apt:
7          update_cache: yes
8
9      - name: 'upgrade'
10       apt:
11         upgrade: dist
12
13     - name: 'install dependencies'
14       apt:
15         name:
16           - ca-certificates
17           - curl
18           - gnupg
19           - lsb-release
20
21     - name: 'add docker gpg key'
22       apt_key:
23         url: https://download.docker.com/linux/ubuntu/gpg
24
25     - name: 'add repository docker'
```

```
TASK [Gathering Facts] *****
ok: [103.55.37.194]

TASK [update] *****
changed: [103.55.37.194]

TASK [upgrade] *****
ok: [103.55.37.194]

TASK [install dependencies] *****
ok: [103.55.37.194]

TASK [add docker gpg key] *****
changed: [103.55.37.194]

TASK [add repository docker] *****
changed: [103.55.37.194]

TASK [install docker engine] *****
changed: [103.55.37.194]

TASK [update] *****
changed: [103.55.37.194]

TASK [install docker-compose] *****
changed: [103.55.37.194]
```

DOCKER

make it easy to develop, build, deploy, run, update and manage containers dependencies required to run that code in any environment..

```
apps1@App-akmal: ~/wayshub-backend
File Actions Edit View Help
ubuntu@ubuntu: ~
GNU nano 4.8 dockerfile Modified
FROM node:dubnium-alpine3.11
WORKDIR /usr/app
COPY . .
RUN npm install
RUN npm install sequelize-cli -g
RUN npx sequelize db:migrate
EXPOSE 5000
CMD [ "npm", "start" ]
```

```
apps1@App-akmal:~/wayshub-backend$ docker push yubisayu/wayshub-be
Using default tag: latest
The push refers to repository [docker.io/yubisayu/wayshub-be]
d74e8f47028b: Pushed
c7bbfa020d7d: Pushed
8a5cac2d0efe: Pushed
b6a1d7c699be: Pushed
edff9ff691d5: Mounted from library/node
cbe4b9146f86: Mounted from library/node
a6524c5b12a6: Mounted from library/node
9a5d14f9f550: Mounted from library/node
latest: digest: sha256:442abcbd6228ddca0d8673f937a084cdf24252631a70293def52deb3cf96
8a4a size: 1998
apps1@App-akmal:~/wayshub-backend$
```

JENKINS

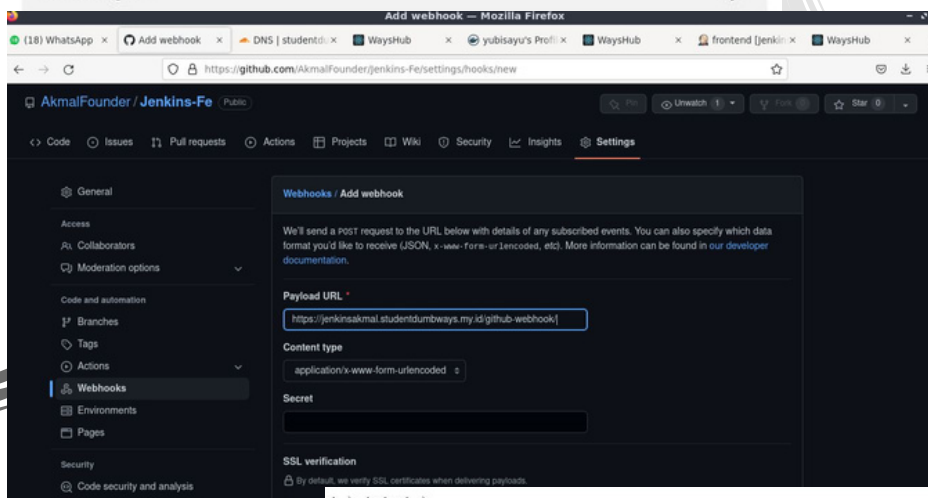
make it easy to develop, build, deploy, run, update and manage containers dependencies required to run that code in any environment..

Welcome to Jenkins!

This page is where your Jenkins jobs will be displayed. To get started, you can set up distributed builds or start building a software project.

Start building your software project

Create a job



Integrate GitHub repository with Jenkins Job, so that when source code is changed webhook will trigger Jenkins Job.

Back to Dashboard

Status

Changes

Build Now

Configure

Delete Pipeline

Full Stage View

Rename

Pipeline Syntax

GitHub Hook Log

Build History trend

Builds...

23 Jun 2022 02:33

Atom feed for all Atom feed for failures

Pipeline backend



Stage View

Average stage times:
(Average full run time: ~5min 27s)

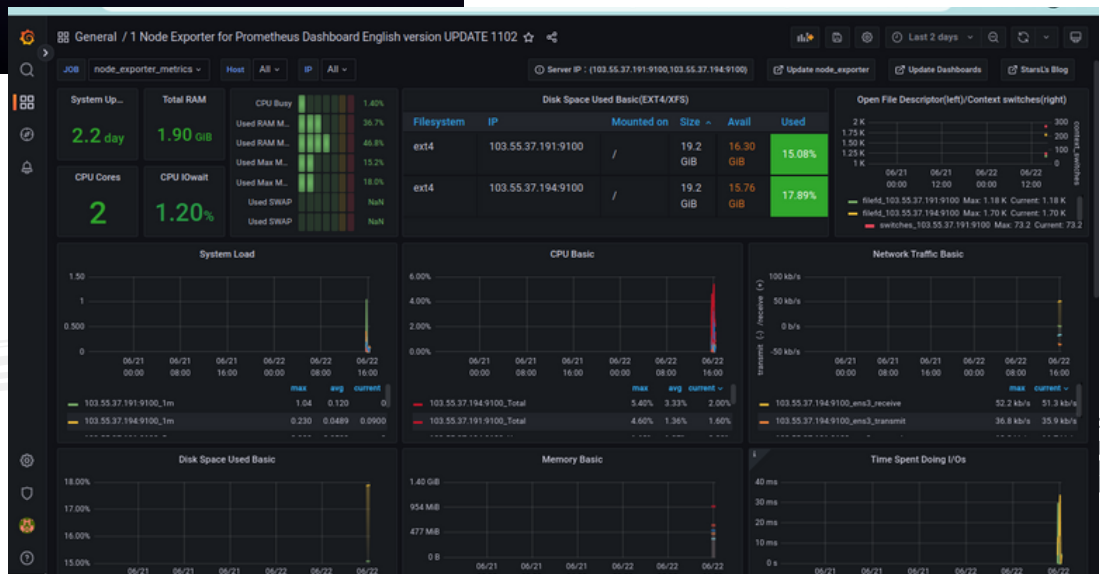
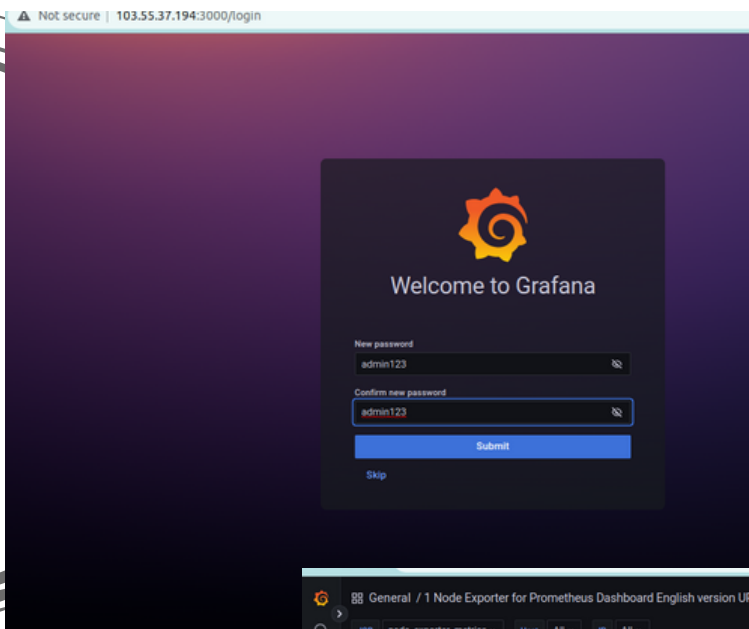
Jun 23 09:33 No Changes

Permalinks

Declarative: Checkout SCM	Delete container and images & git pull	Build Images	Deploy Container
6s	35s	4min 18s	19s
6s	35s	4min 18s	19s

MONITORING

With the Combination of Prometheus and Grafana, we can create a nice looking server monitoring



TOOL USED

