Migrasi Infrastruktur Milik Cilsy Dari On Premises ke Cloud AWS

Fitur:
(Automation, CI/CD, Containerization, Orchestration)

Ikhsan Fajar Nugroho

Background

- Semua aplikasi web service milik cilsy yang terdiri dari web perusahaan, blog perusahaan dan sosial media milik perusahaan masih berada pada infrastruktur on premise. Serta fase stagging dan production masih menjadi satu server serta belum terkontainerisasi.

Rumusan Masalah

- 1. Rincian Biaya
- 2. Migrasi dari On Premise ke Cloud Aws.
- 3. Membuat server High Availability 24x12x365.
- 4. Membuat seluruh aplikasi terkontainerisasi.
- 5. Memisahkan infra struktur staging dan production.
- 6. Membuat mekanisme CI/CD.
- 7. Membuat workflow yang mengurangi human error.
- 8. Membuat monitoring.

Rincian Biaya

Maksimal

Get Started with AWS: Learn more about our Free Tier or Sign Up for an AWS Account »

USAGE TIER: New Customers get free usage tier for first 12 months

Services | **Estimate of your Monthly Bill ($ 799.12)**

Estimate of Your Monthly Bill

Show First Month's Bill (include all one-time fees, if any)

ow you will see an estimate of your monthly bill. Expand each line item to see cost breakout of each service. To save this bill and input values, click on 'Save and Share' button. To remove service from the estimate, jump back to the service and clear the specific service's form.

rt to CSV | Save and Share

Amazon EC2 Service (Asia Pacific (Singapore))	$ 595.40
Amazon Route 53 Service	$ 0.50
Amazon RDS Service (Asia Pacific (Singapore))	$ 140.40
Amazon Elastic Load Balancing (Asia Pacific (Singapore))	$ 55.34
Amazon VPC Service (Asia Pacific (Singapore))	$ 0.11
AWS Data Transfer In	$ 0.00
AWS Data Transfer Out	$ 0.12
Amazon Elastic File System Service (Asia Pacific (Singapore))	$ 7.25
AWS Support (Basic)	$ 0.00
onthly Payment:	**$** 799.12

Rincian Biaya

Minimal

Services | **Estimate of your Monthly Bill ($ 605.58)**

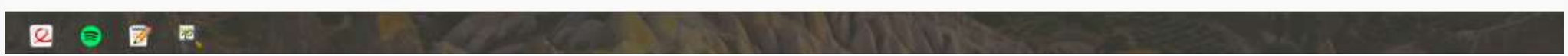
Estimate of Your Monthly Bill

Show First Month's Bill (include all one-time fees, if any)

ow you will see an estimate of your monthly bill. Expand each line item to see cost breakout of each service. To save this bill and input values, click on 'Save and Share' button. To remove service from the estimate, jump back to the service and clear the specific service's form.

rt to CSV | Save and Share

Amazon EC2 Service (Asia Pacific (Singapore))	$ 401.86
Amazon Route 53 Service	$ 0.50
Amazon RDS Service (Asia Pacific (Singapore))	$ 140.40
Amazon Elastic Load Balancing (Asia Pacific (Singapore))	$ 55.34
Amazon VPC Service (Asia Pacific (Singapore))	$ 0.11
AWS Data Transfer In	$ 0.00
AWS Data Transfer Out	$ 0.12
Amazon Elastic File System Service (Asia Pacific (Singapore))	$ 7.25
AWS Support (Basic)	$ 0.00
onthly Payment:	**$** 605.58



Rincian Biaya

Selama 6 Bulan

~ Jika memakai skema rincian biaya maksimal maka:

$799,12 x 6 Bulan = $4.794,72 *

~ Jika memakai skema rincian biaya minimal maka:

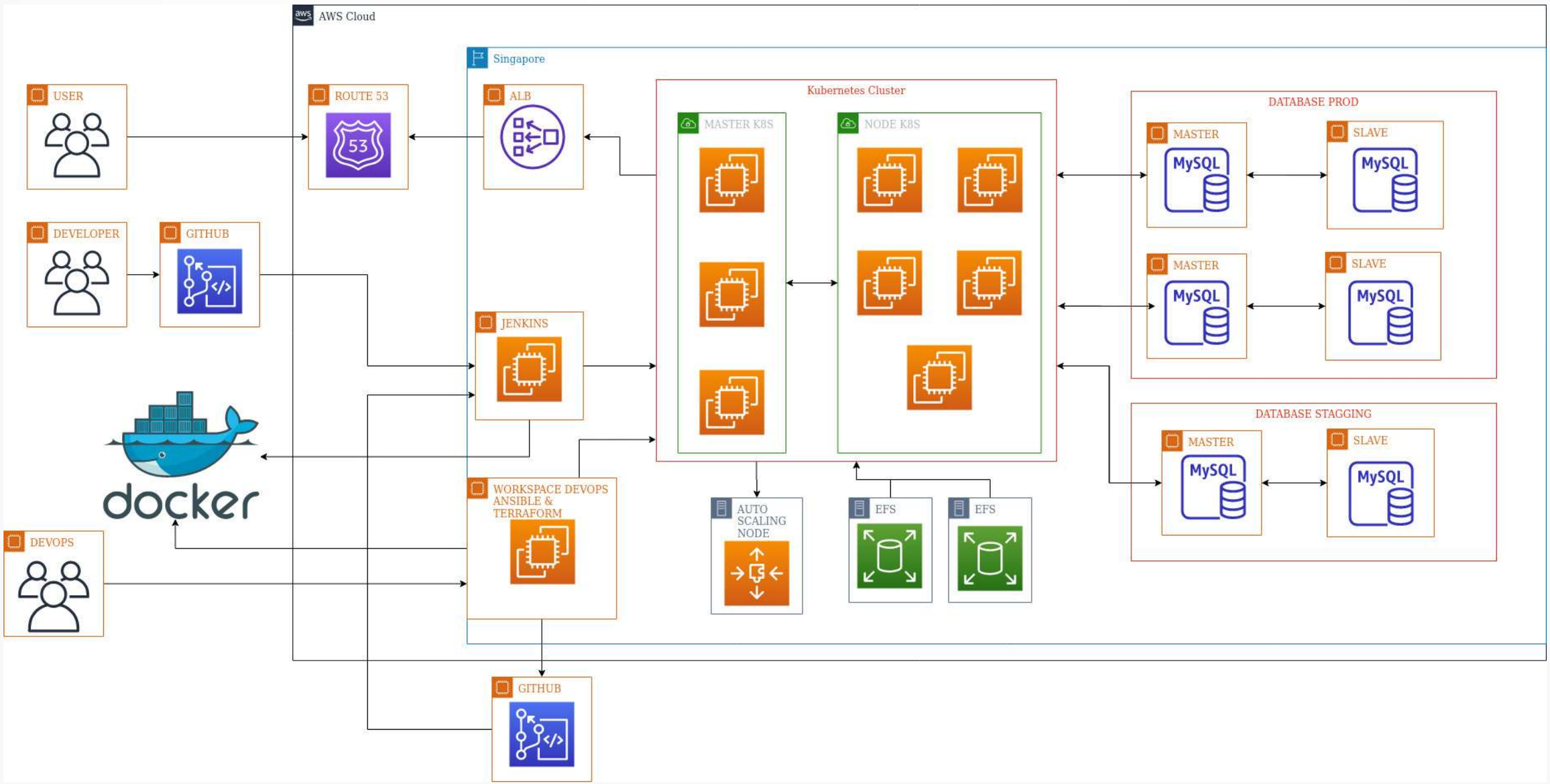
$605,58 x 6 Bulan = $3.633,48 *

*seluruh biaya tidak memakai free tier

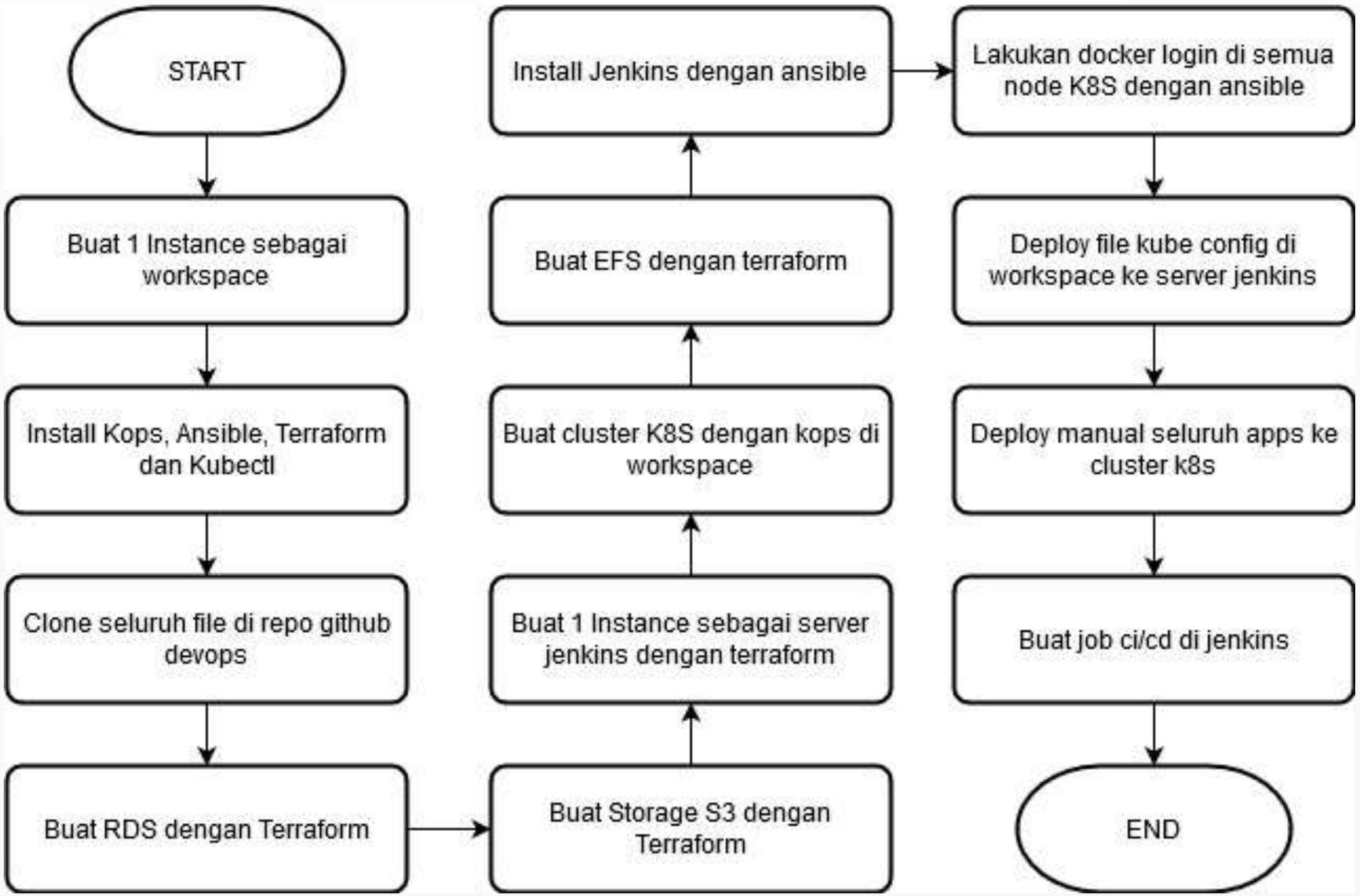
Kebutuhan Tool

- 1. Untuk Automation = Ansible dan Terraform
- 2. Untuk Orchestration = Kubernetes
- 3. Untuk Containerization = Docker
- 4. Untuk CI / CD = Jenkins
- 5. Untuk Monitoring = Prometheus Grafana
- 6. Untuk Logging = EFK

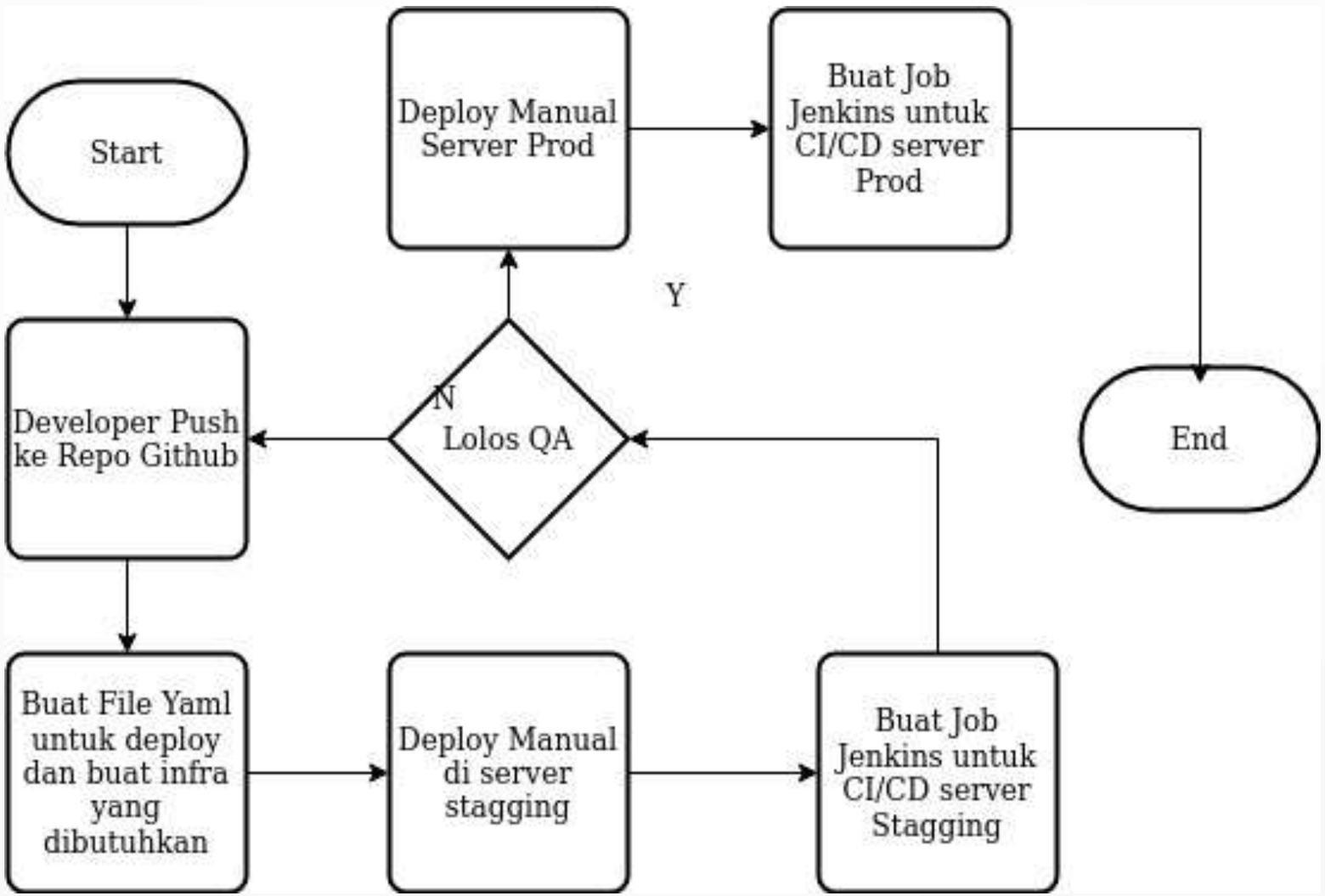
Topologi


AWS Cloud
Singapore
USER
ROUTE 53
ALB
Kubernetes Cluster
MASTER K8S
NODE K8S
DATABASE PROD
MASTER
MySQL
SLAVE
MySQL
MASTER
MySQL
SLAVE
MySQL
DEVELOPER
GITHUB
JENKINS
DATABASE STAGGING
MASTER
MySQL
SLAVE
MySQL
docker
WORKSPACE DEVOPS ANSIBLE & TERRAFORM
AUTO SCALING NODE
EFS
EFS
DEVOPS
GITHUB

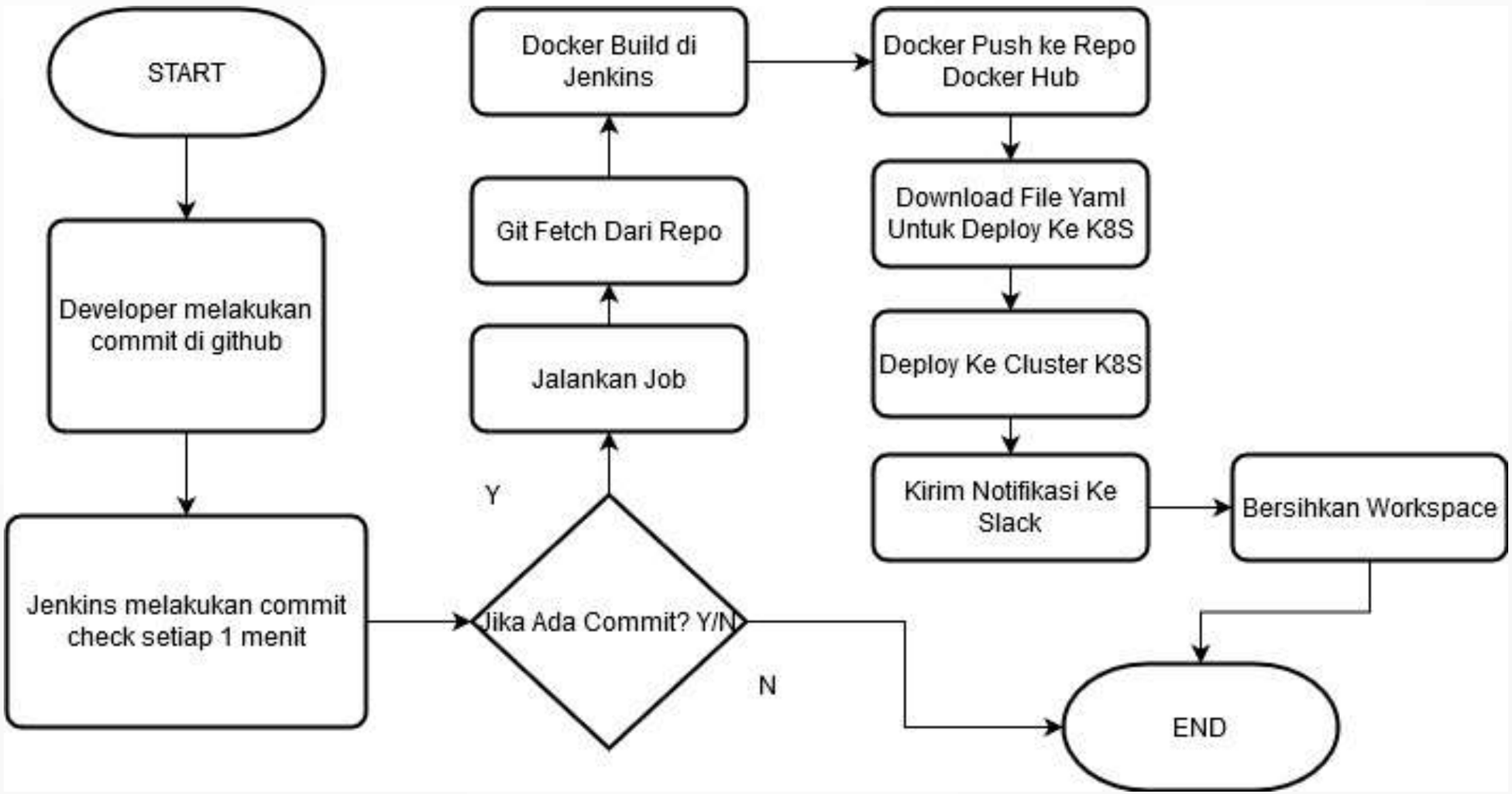
Workflow DevOps Awal



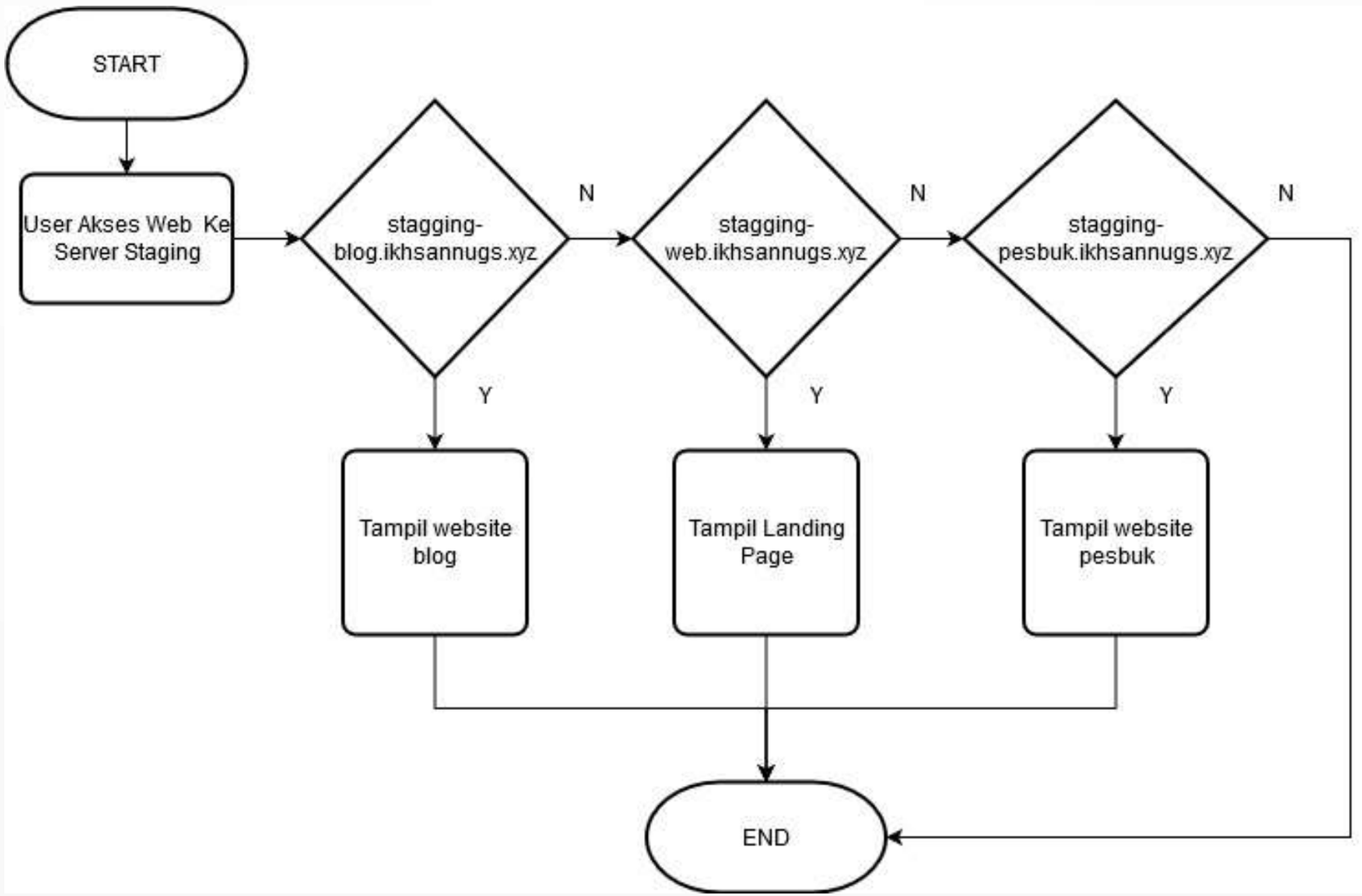
Workflow Deploy Apps Baru



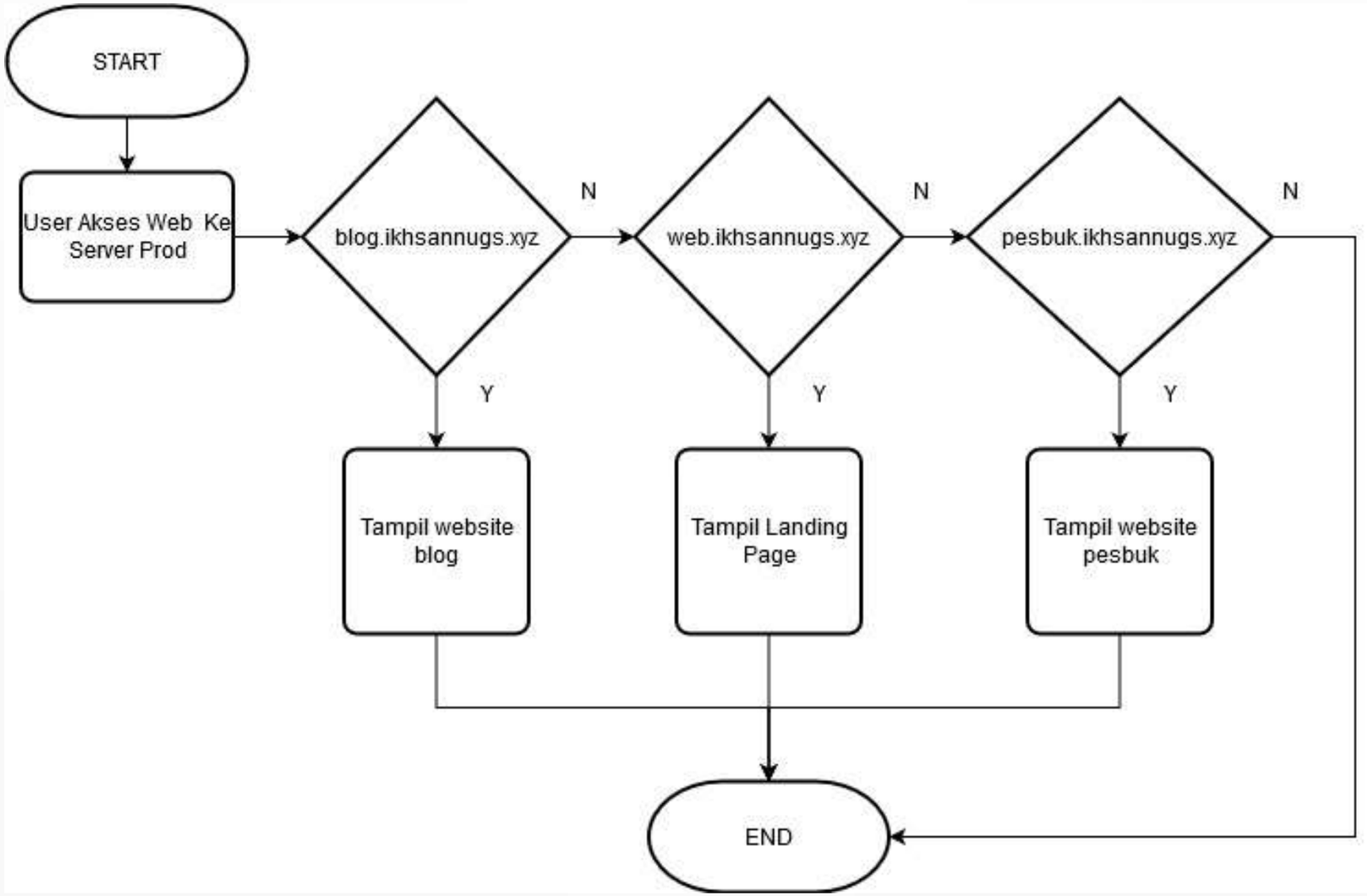
Workflow CI/CD



Workflow User Stagging



Workflow User Production



SHOW SCRIPT

THANK YOU