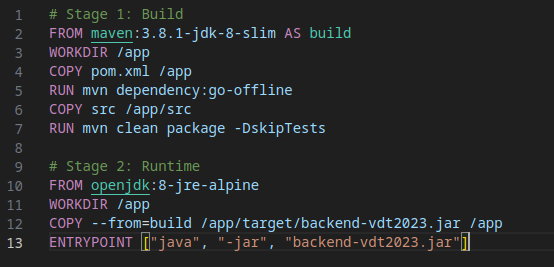
Họ và tên: Nguyễn Dương Long

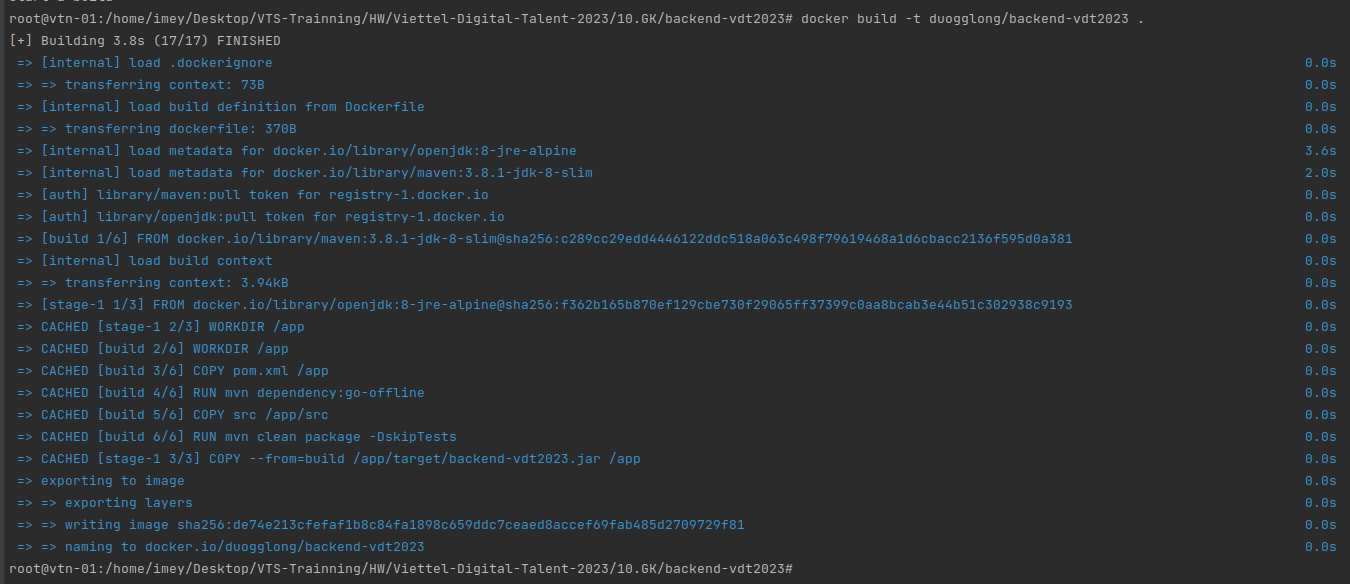
**1. Containerization**

- API:

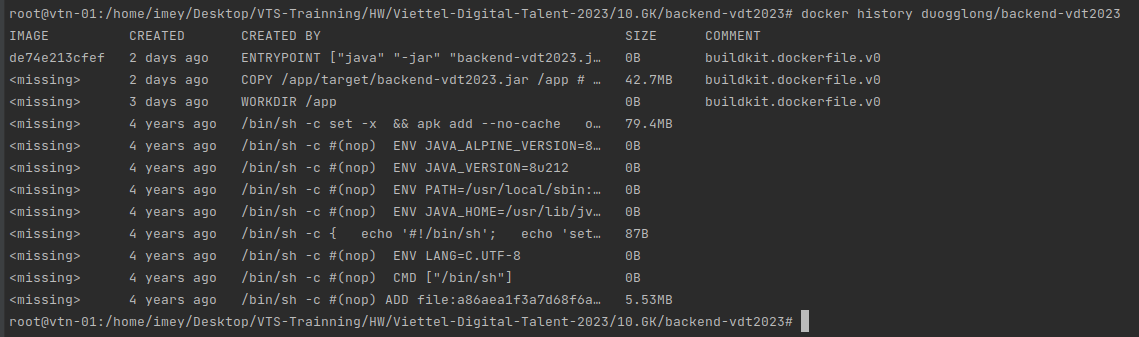
+ Dockerfile:



+ Output lệnh build:

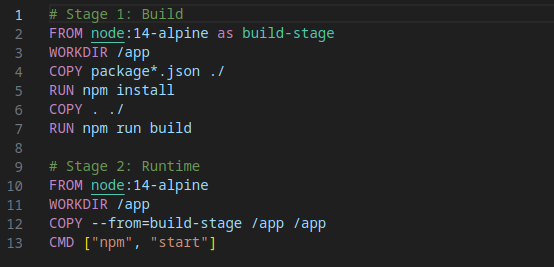


+ Thông tin docker history

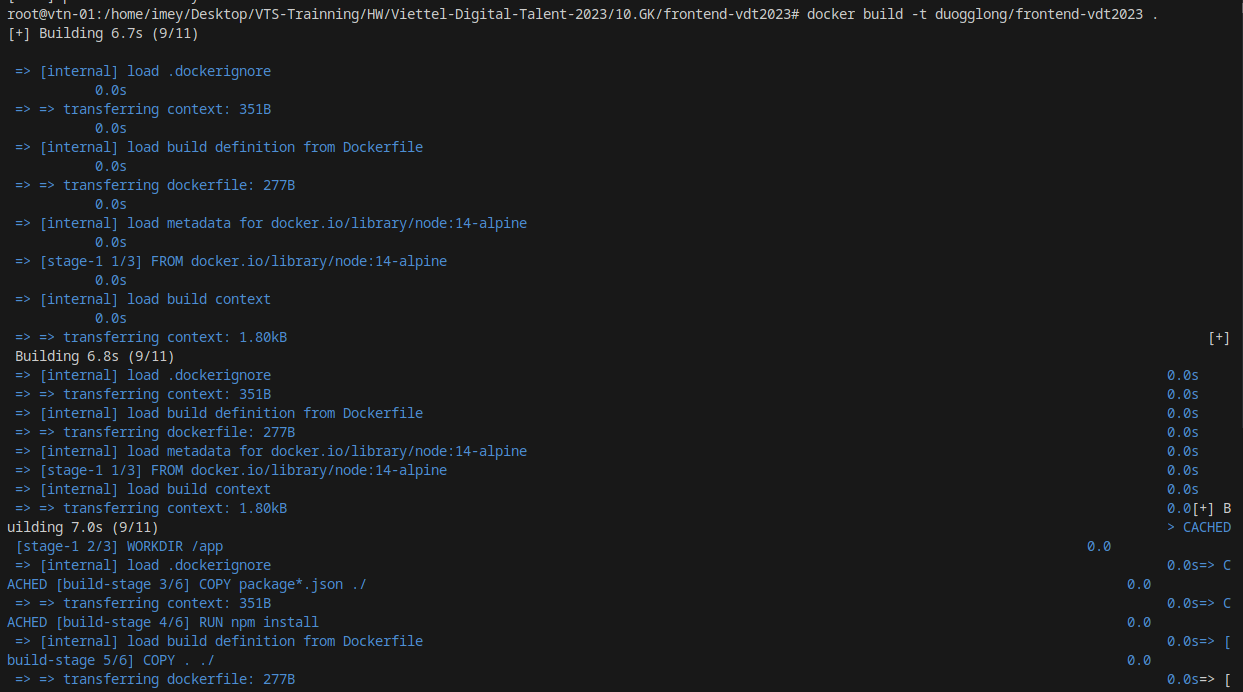


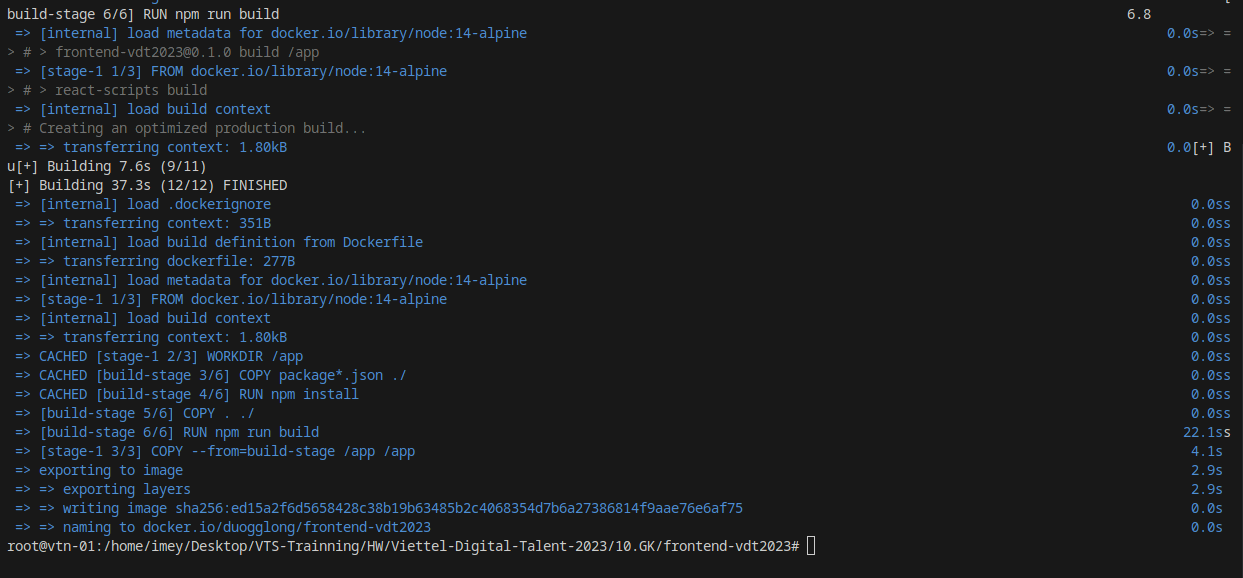
- WEB:

+ Dockerfile:

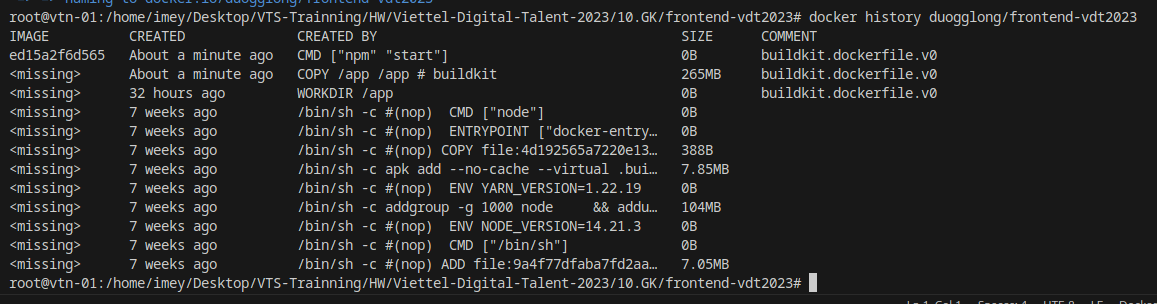


+ Output lệnh build:



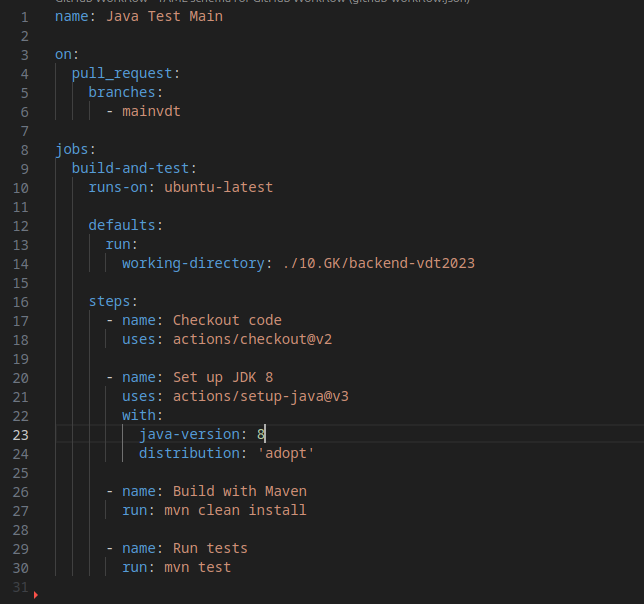


+ Thông tin docker history

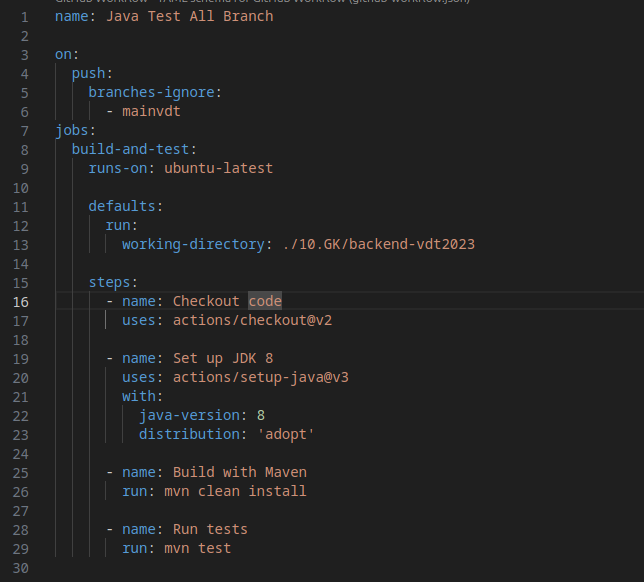


**2. Continous Integration**

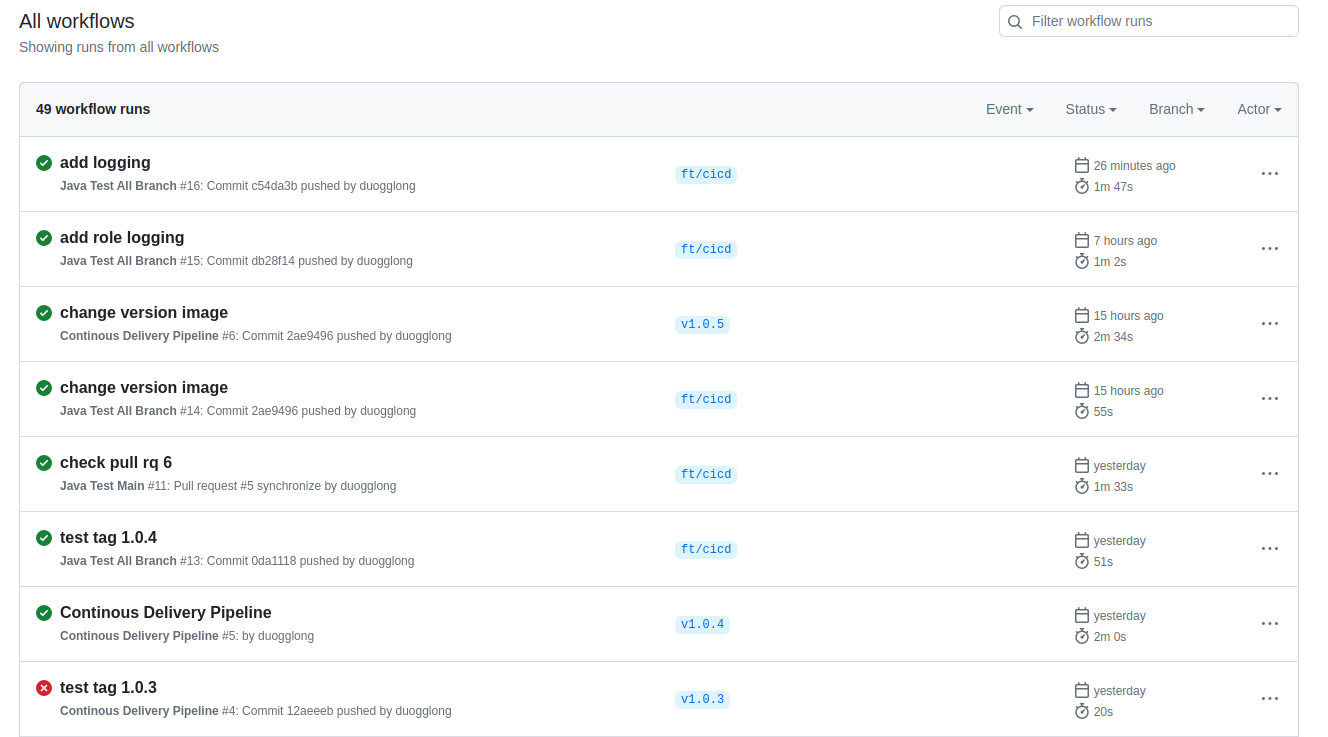
- File chạy unit test khi tạo PR vào branch main (đặt mainvdt thay cho main vì main em đang để là PR của bài tập tuần 1):

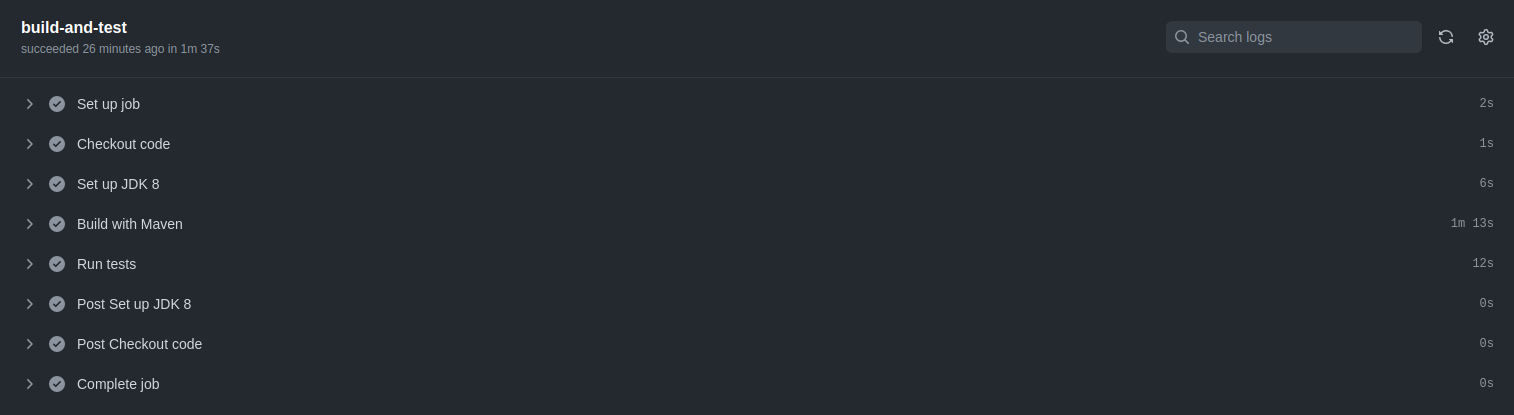


- File chạy unit test khi push commit lên một branch:



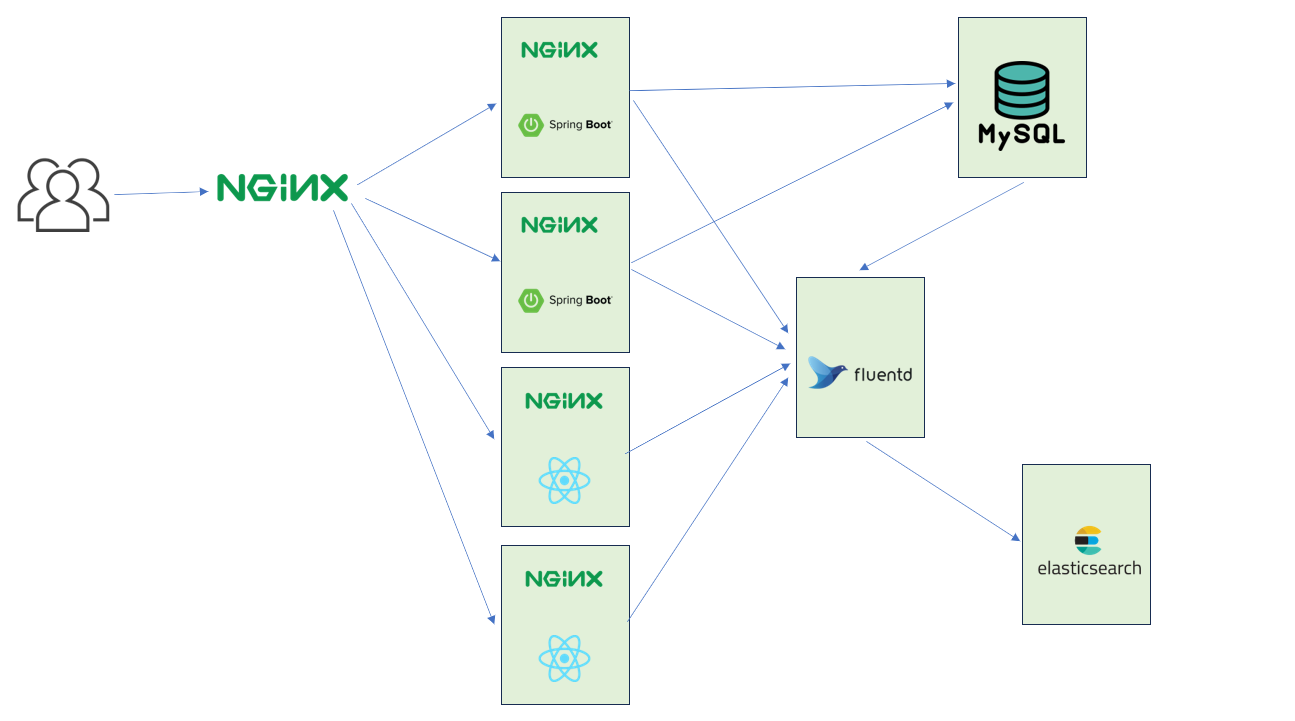
- Hình ảnh github action chạy các test:





3. Continous Delivery

- Ảnh kiến trúc triển khai:



- Mô tả hệ thống:

+ Triển khai 1 server chạy nginx: cân bằng tải

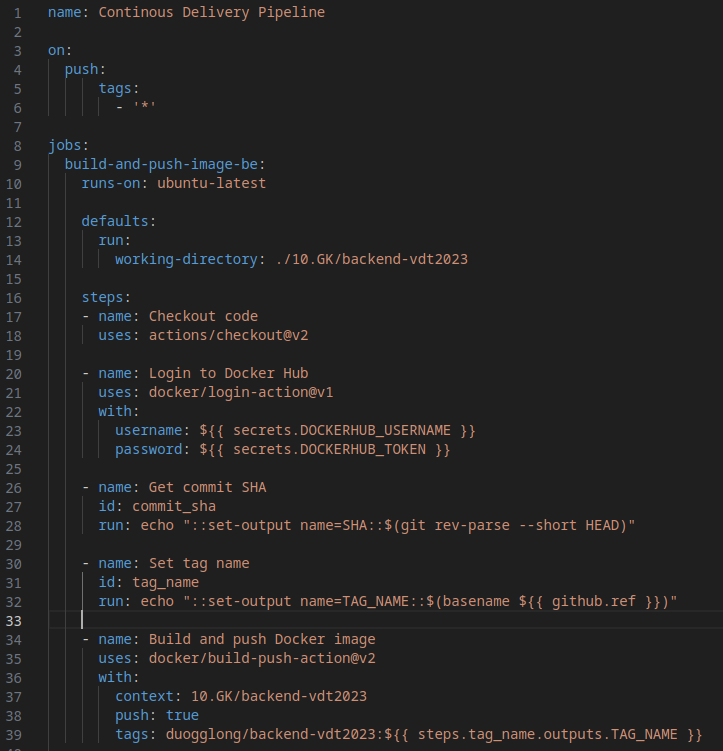
+ 2 server chạy dịch vụ API, Nginx: đóng vai trò webserver

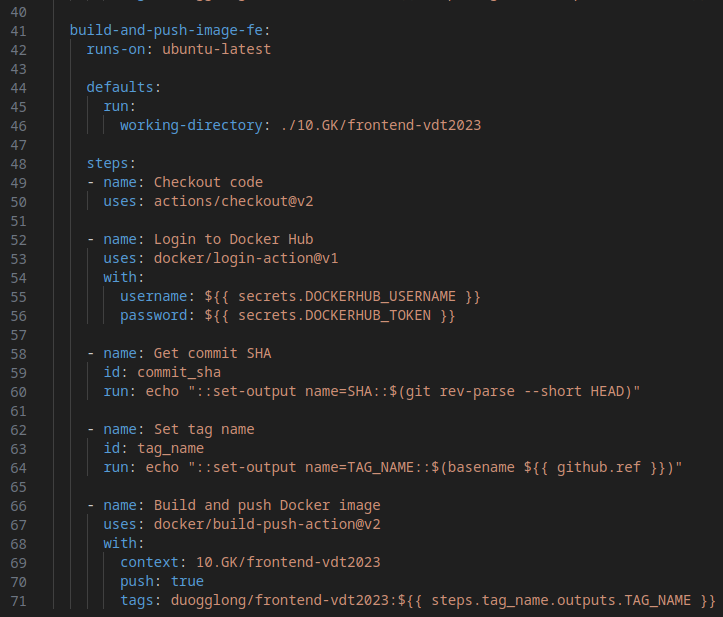
+ 2 server chạy dịch vụ WEB, Nginx đóng vai trò webserver

+ Triển khai một server dựng DB mysql

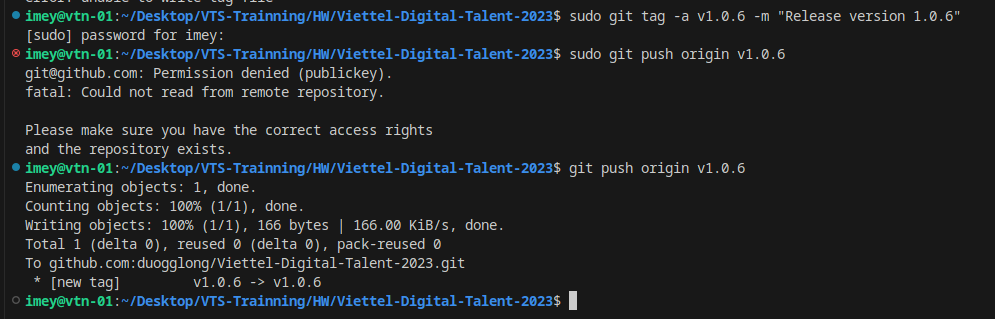
+ Triển khai một server chạy dịch vụ Fluentd để đẩy logs về Elasticseach tập trung

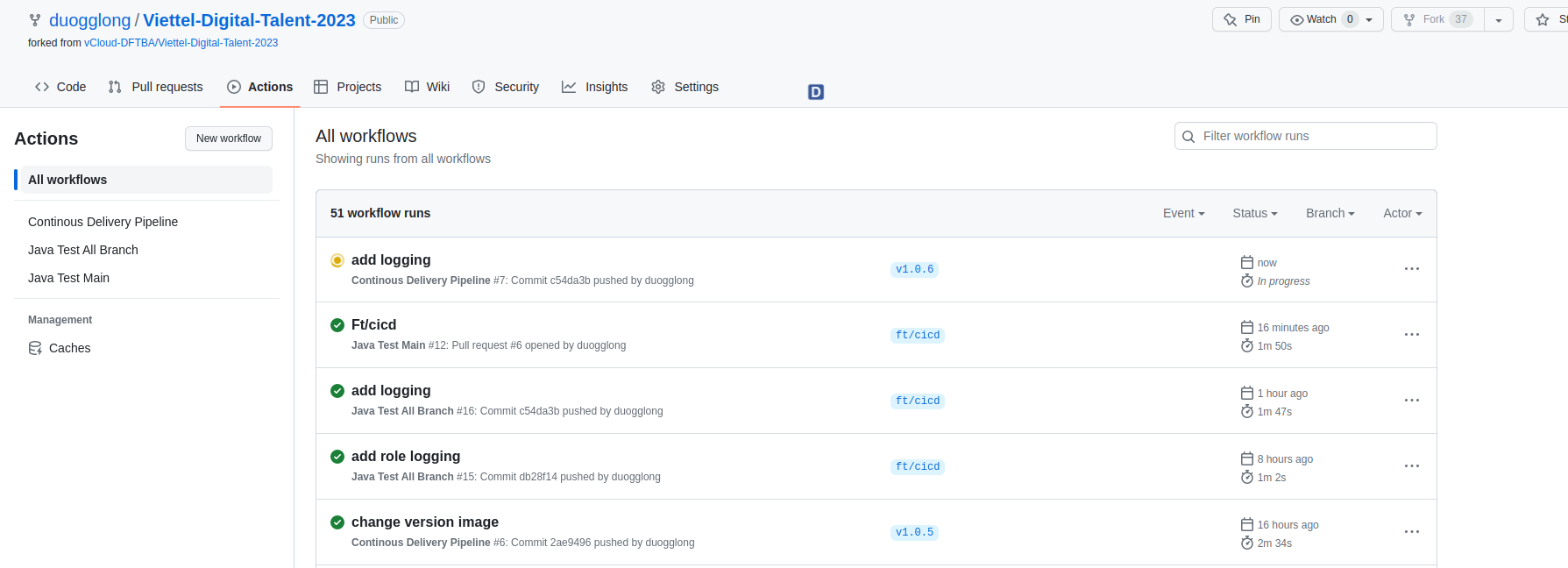
- File setup CD:

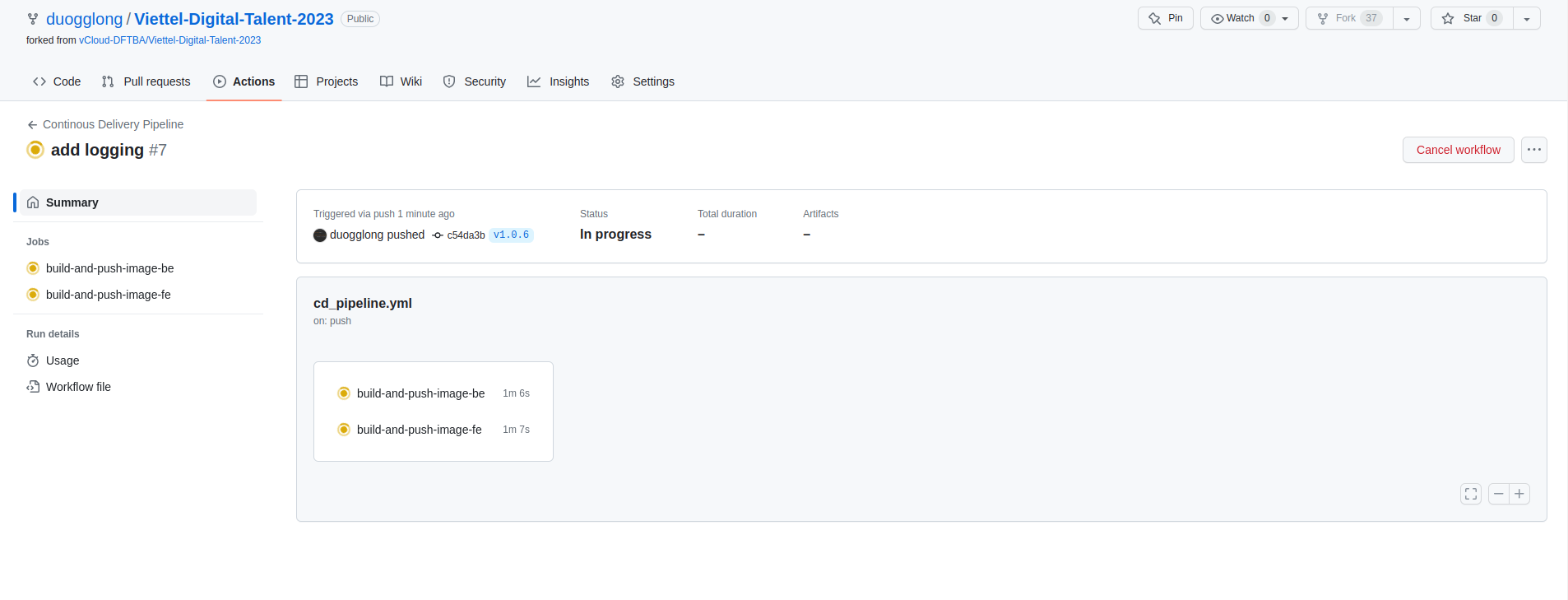


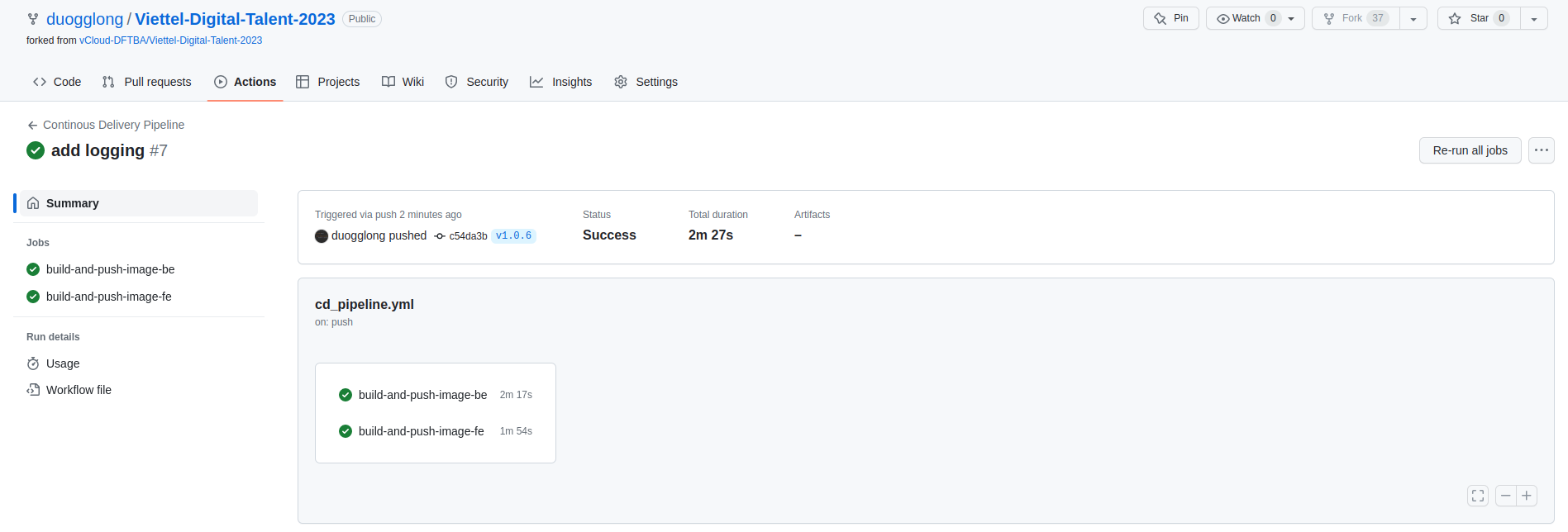


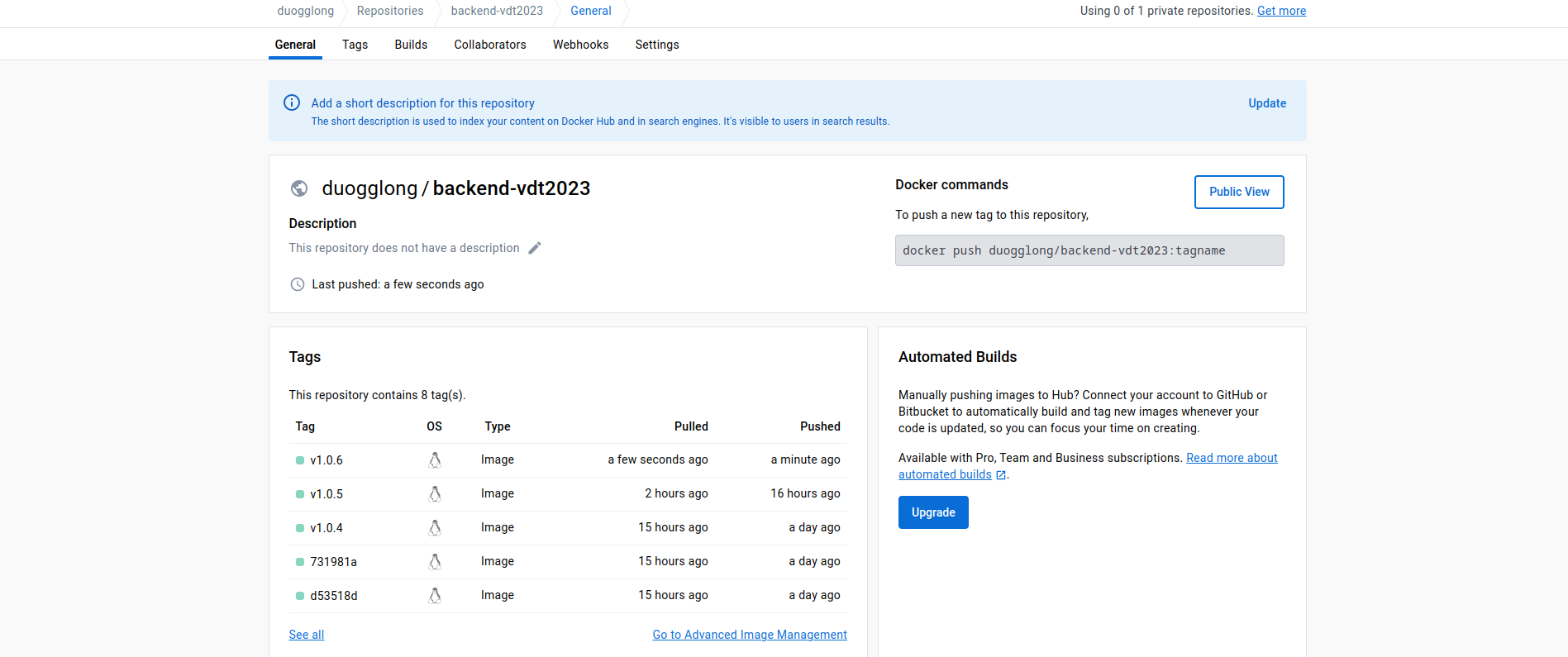
- Output luồng build và push Docker Image lên Docker Hub:

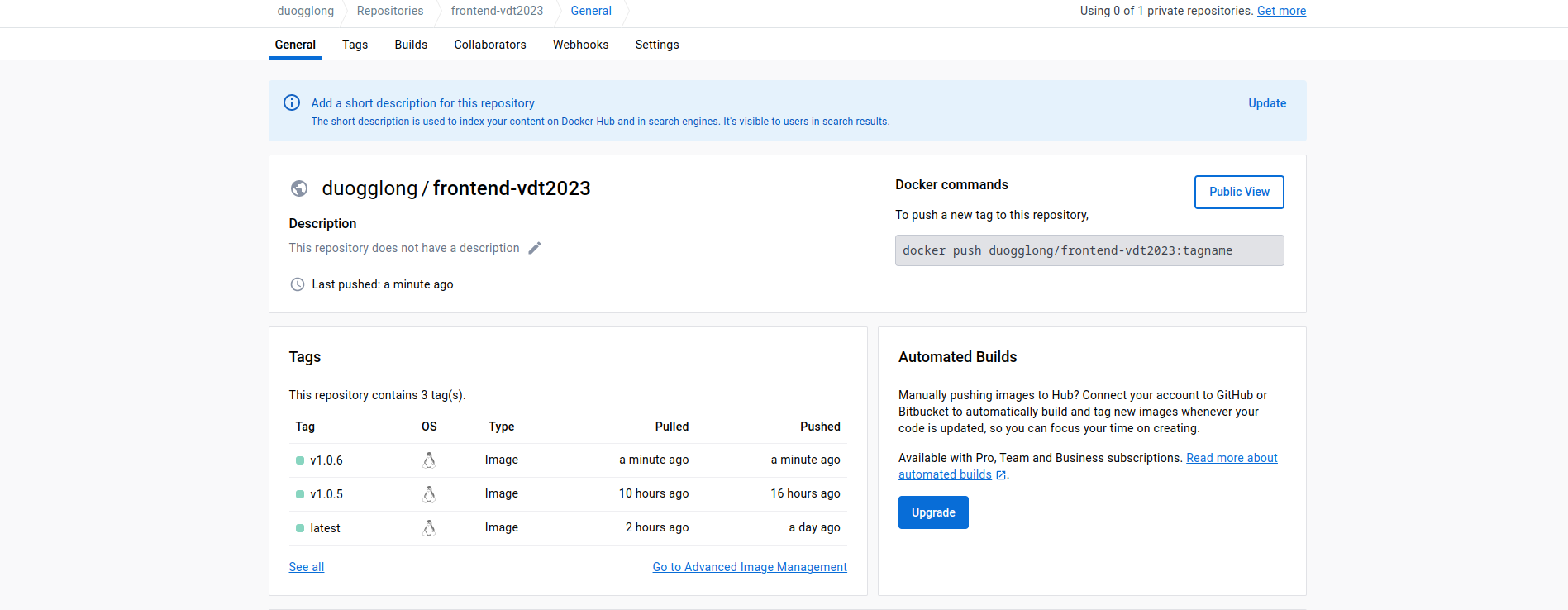












- Hướng dẫn sử dụng ansible playbook để triển khai các thành phần hệ thống:

+ Vault pass: 123456aA@

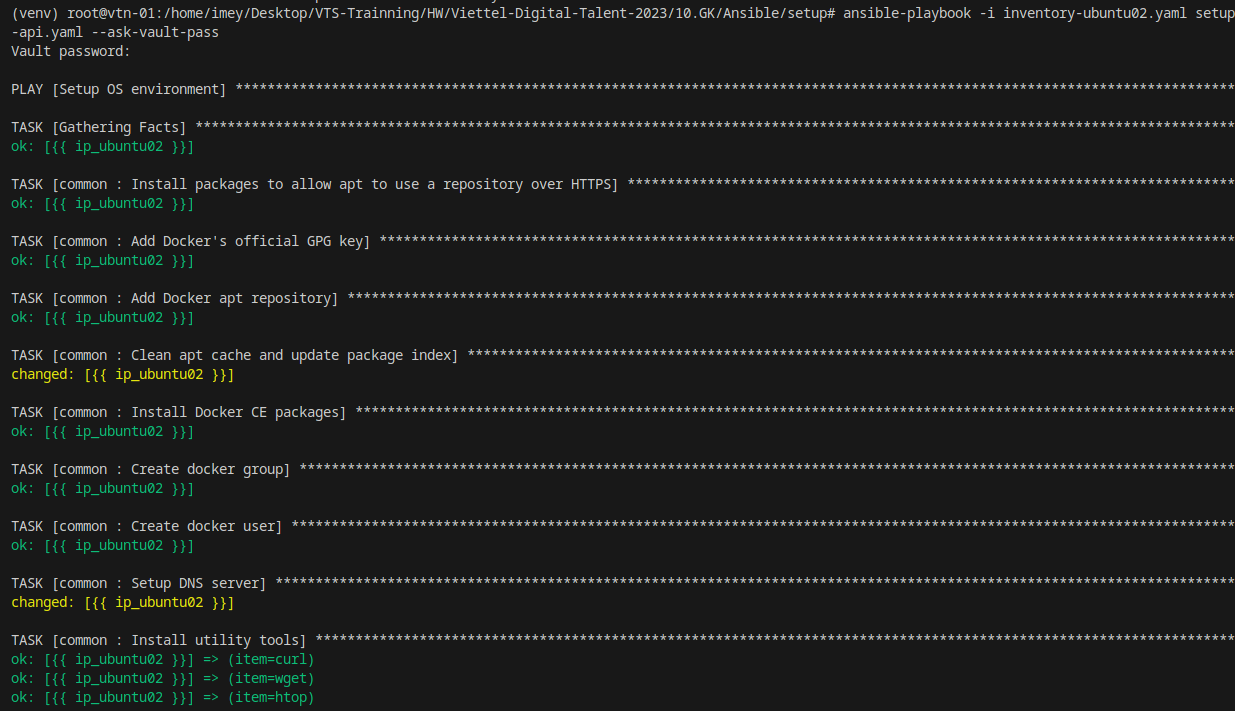
+ Triển khai cấu hình máy ubuntu01 (DB):

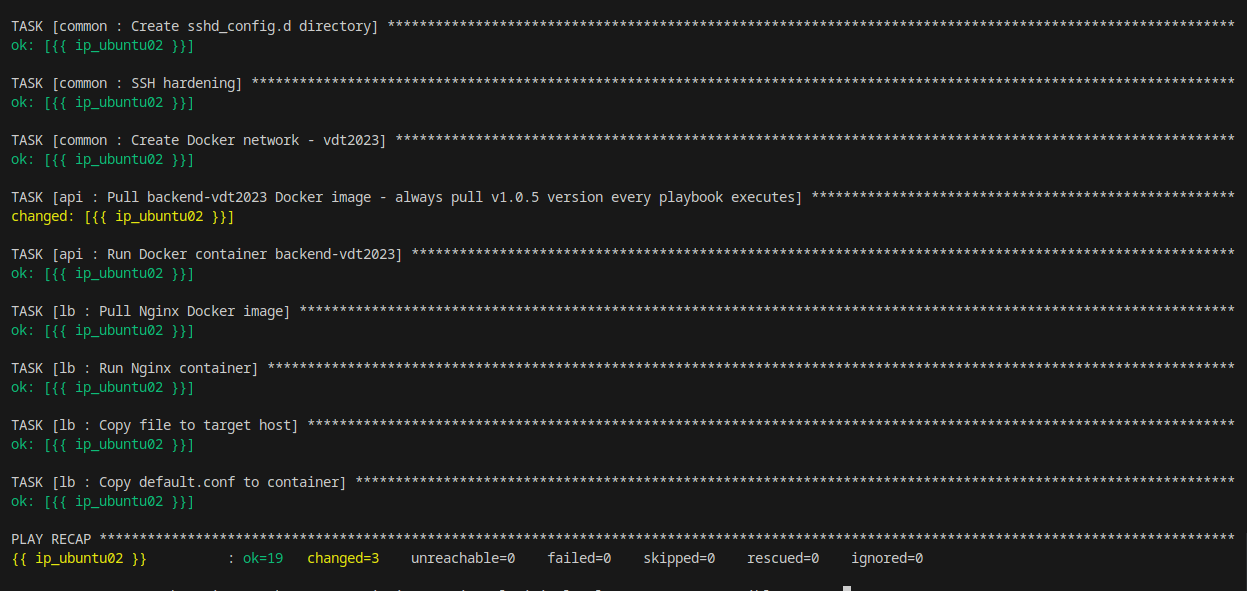
ansible-playbook -i inventory-ubuntu01.yaml setup-db.yaml --ask-vault-pass

+ Triển khai cấu hình máy ubuntu02, ubuntu03 (API):

ansible-playbook -i inventory-ubuntu02.yaml setup-api.yaml –ask-vault-pass

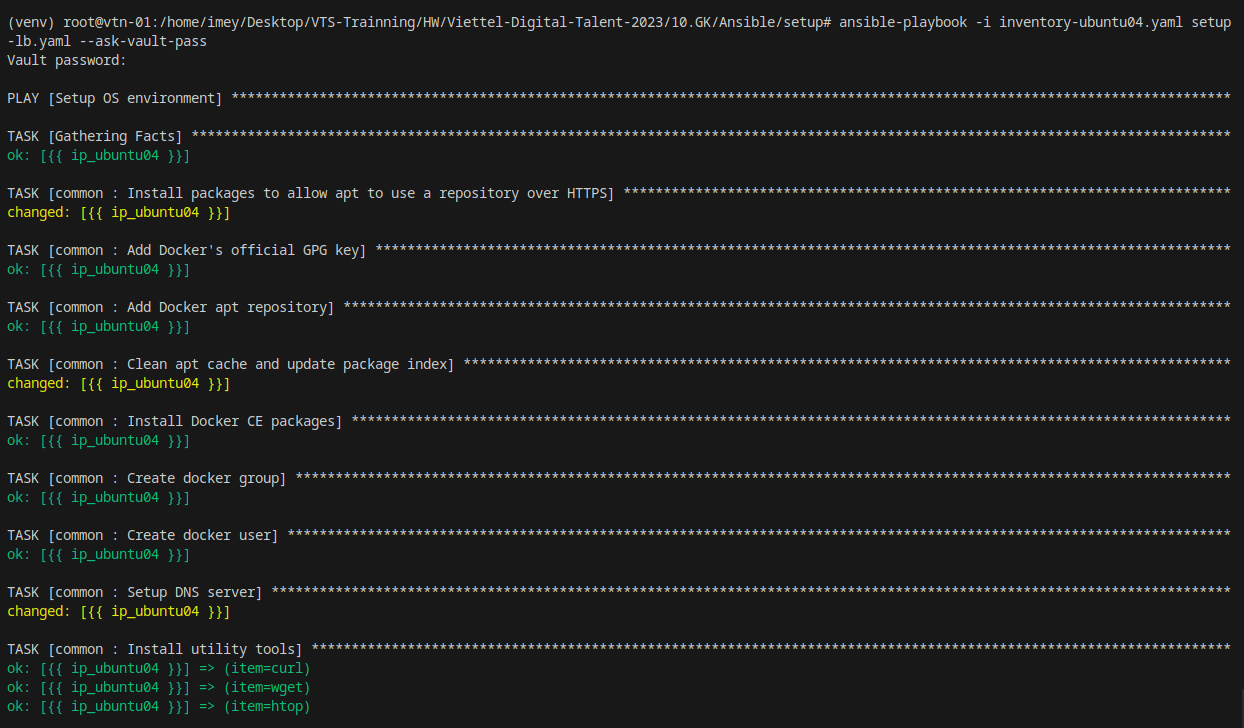
ansible-playbook -i inventory-ubuntu03.yaml setup-api.yaml –ask-vault-pass

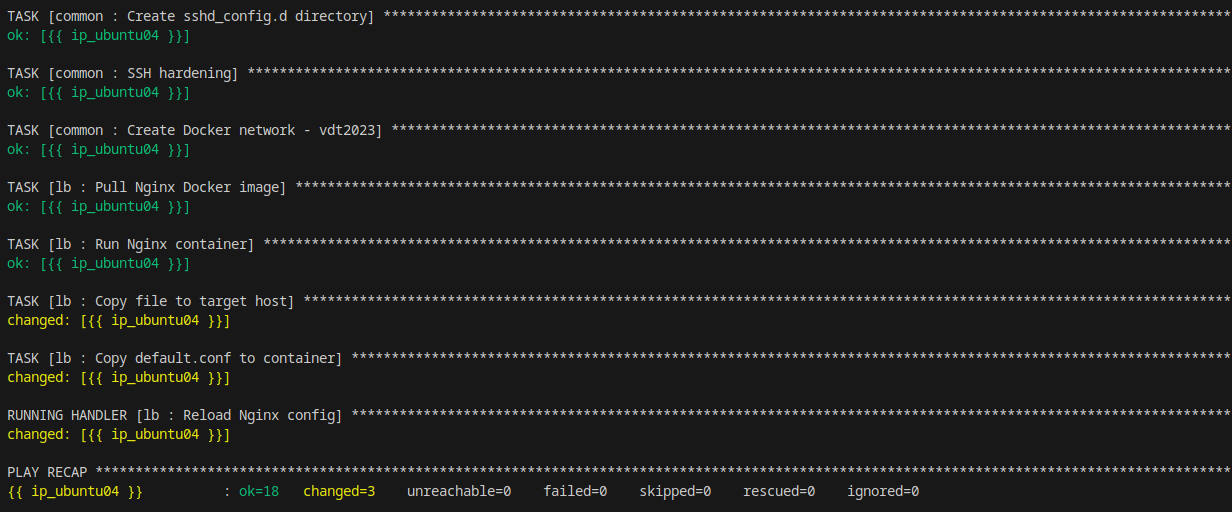




+ Triển khai cấu hình máy ubuntu04 (LB):

ansible-playbook -i inventory-ubuntu04.yaml setup-lb.yaml –ask-vault-pass

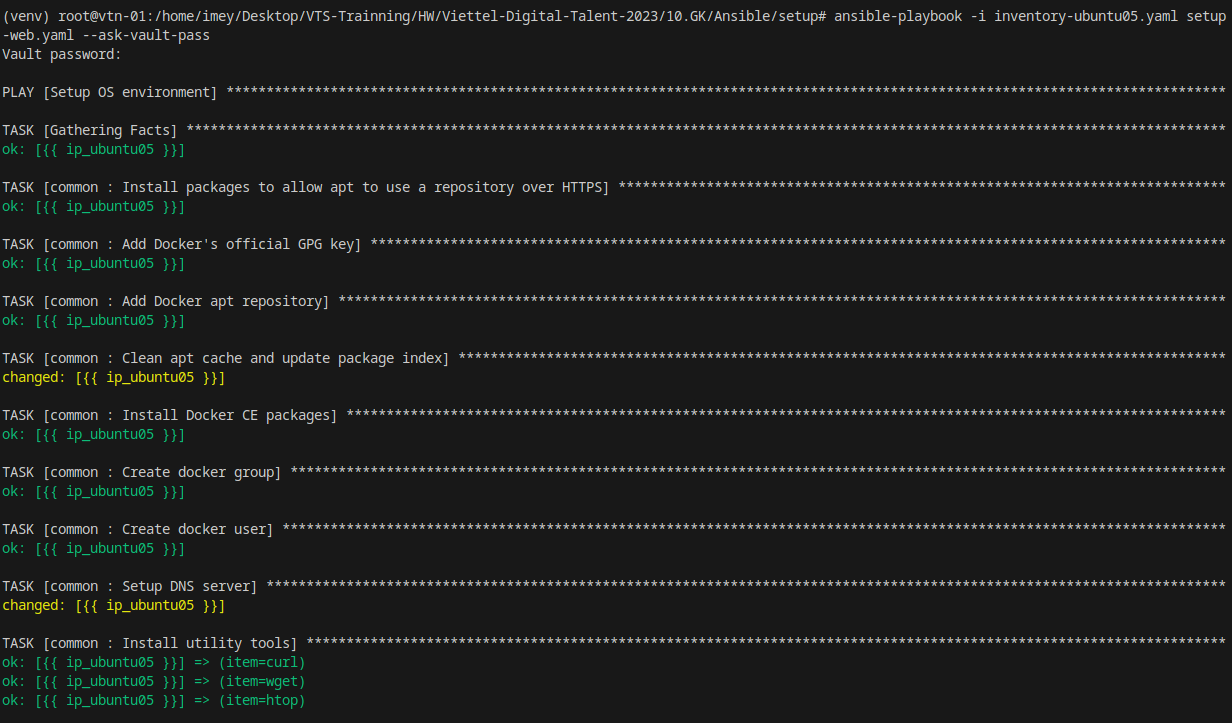


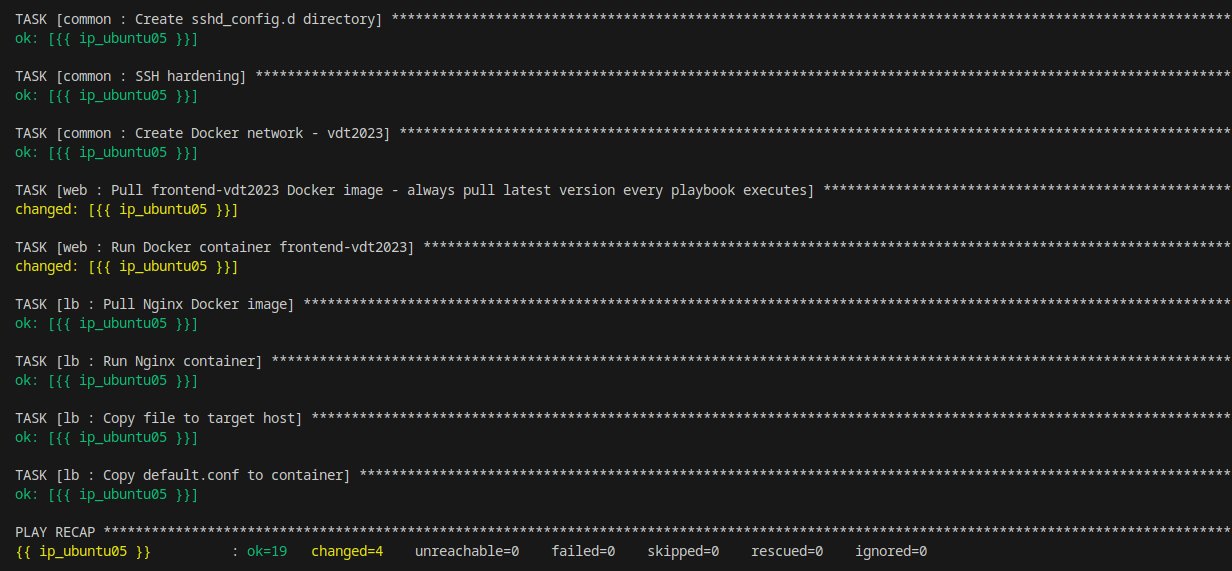


+ Triển khai cấu hình máy ubuntu05, ubuntu06 (WEB):

ansible-playbook -i inventory-ubuntu05.yaml setup-web.yaml –ask-vault-pass

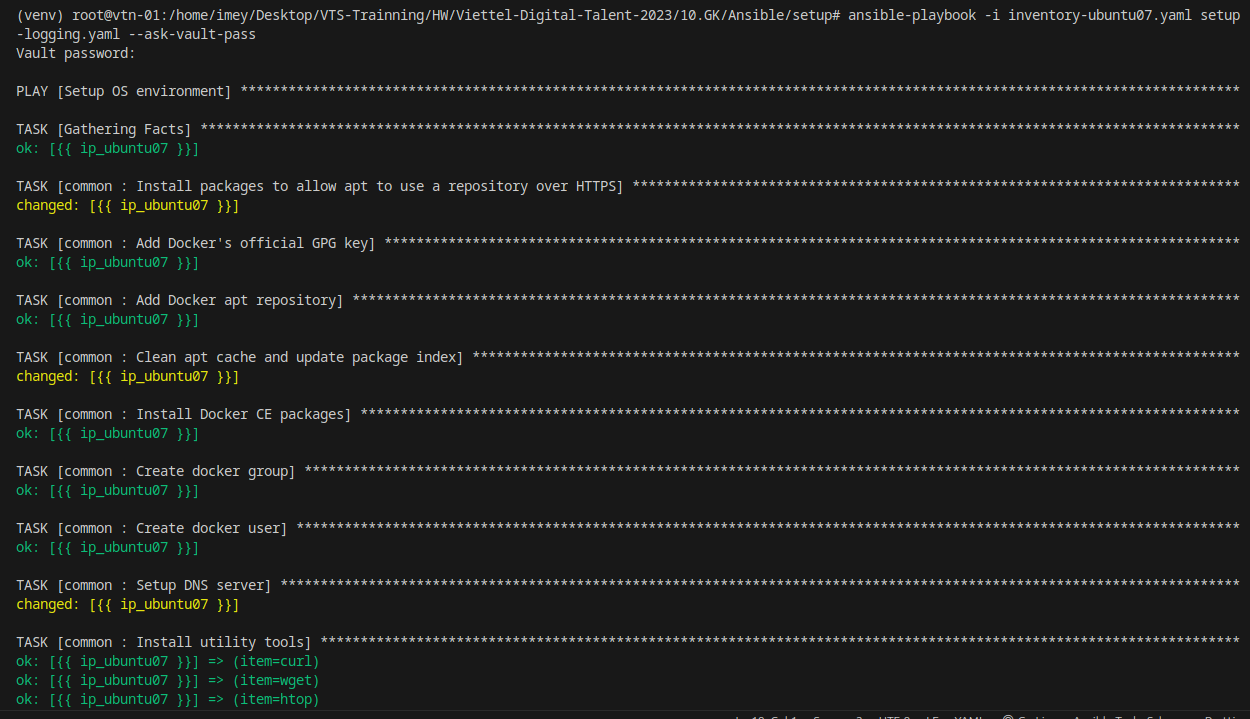
ansible-playbook -i inventory-ubuntu06.yaml setup-web.yaml –ask-vault-pass

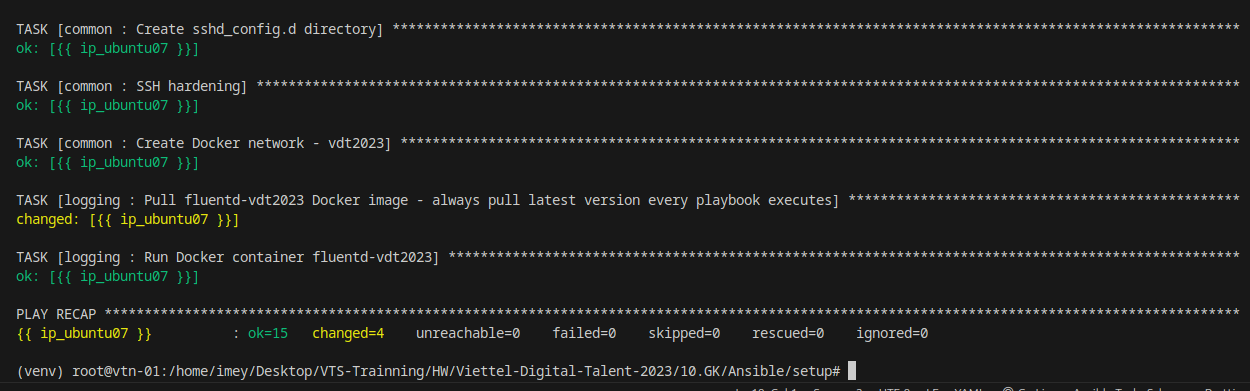




5. Logging

- Triển khai role logging trên server riêng:





- Ảnh chụp log:

