**Nhóm 23**

**Đề tài: Phát triển service xử lý và lưu trữ video**

**Họ và tên: Nguyễn Minh Sơn**

**MSSV: 20110713**

**Milestone 5**

**Task 4: Tổng hợp các step thành file workflow Github Action và push lên repository của nhóm**

| **name: Pytest**  **on:**  **push:**  **branches: [ "master" ]**  **pull\_request:**  **branches: [ "master" ]**  **permissions: read-all**  **jobs:**  **build:**  **runs-on: ubuntu-latest**  **steps:**  **- uses: actions/checkout@v3**  **- name: Set up Python 3.7**  **uses: actions/setup-python@v3**  **with:**  **python-version: "3.7"**  **- name: Install mongodb**  **run: |**  **sudo apt-get install gnupg**  **curl -fsSL https://pgp.mongodb.com/server-6.0.asc | \**  **sudo gpg -o /usr/share/keyrings/mongodb-server-6.0.gpg \**  **--dearmor**  **echo "deb [ arch=amd64,arm64 signed-by=/usr/share/keyrings/mongodb-server-6.0.gpg ] https://repo.mongodb.org/apt/ubuntu jammy/mongodb-org/6.0 multiverse" | sudo tee /etc/apt/sources.list.d/mongodb-org-6.0.list**    **sudo apt-get update**  **sudo apt-get install -y mongodb-org**  **echo "mongodb-org hold" | sudo dpkg --set-selections**  **echo "mongodb-org-database hold" | sudo dpkg --set-selections**  **echo "mongodb-org-server hold" | sudo dpkg --set-selections**  **echo "mongodb-mongosh hold" | sudo dpkg --set-selections**  **echo "mongodb-org-mongos hold" | sudo dpkg --set-selections**  **echo "mongodb-org-tools hold" | sudo dpkg --set-selections**  **- name: Start MongoDB**  **run: sudo systemctl start mongod**  **- name: Install FFmpeg**  **run: sudo apt install ffmpeg -y**  **- name: Install RabbitMQ**  **run: |**  **sudo apt-get update -y**  **sudo apt-get install curl gnupg apt-transport-https -y**  **curl -1sLf "https://keys.openpgp.org/vks/v1/by-fingerprint/0A9AF2115F4687BD29803A206B73A36E6026DFCA" | sudo gpg --dearmor | sudo tee /usr/share/keyrings/com.rabbitmq.team.gpg > /dev/null**    **curl -1sLf "https://keyserver.ubuntu.com/pks/lookup?op=get&search=0xf77f1eda57ebb1cc" | sudo gpg --dearmor | sudo tee /usr/share/keyrings/net.launchpad.ppa.rabbitmq.erlang.gpg > /dev/null**    **curl -1sLf "https://packagecloud.io/rabbitmq/rabbitmq-server/gpgkey" | sudo gpg --dearmor | sudo tee /usr/share/keyrings/io.packagecloud.rabbitmq.gpg > /dev/null**  **sudo tee /etc/apt/sources.list.d/rabbitmq.list <<EOF**    **deb [signed-by=/usr/share/keyrings/net.launchpad.ppa.rabbitmq.erlang.gpg] http://ppa.launchpad.net/rabbitmq/rabbitmq-erlang/ubuntu bionic main**  **deb-src [signed-by=/usr/share/keyrings/net.launchpad.ppa.rabbitmq.erlang.gpg] http://ppa.launchpad.net/rabbitmq/rabbitmq-erlang/ubuntu bionic main**    **deb [signed-by=/usr/share/keyrings/io.packagecloud.rabbitmq.gpg] https://packagecloud.io/rabbitmq/rabbitmq-server/ubuntu/ bionic main**  **deb-src [signed-by=/usr/share/keyrings/io.packagecloud.rabbitmq.gpg] https://packagecloud.io/rabbitmq/rabbitmq-server/ubuntu/ bionic main**  **EOF**    **sudo apt-get update -y**    **sudo apt-get install -y erlang-base \**  **erlang-asn1 erlang-crypto erlang-eldap erlang-ftp erlang-inets \**  **erlang-mnesia erlang-os-mon erlang-parsetools erlang-public-key \**  **erlang-runtime-tools erlang-snmp erlang-ssl \**  **erlang-syntax-tools erlang-tftp erlang-tools erlang-xmerl**    **sudo apt-get install rabbitmq-server -y --fix-missing**  **- name: Start RabbitMQ**  **run: sudo systemctl start rabbitmq-server**  **- name: Install dependencies + Local Test**  **run: |**  **pip install --upgrade pip**  **python3 -m venv venv**  **source venv/bin/activate**  **echo "VIRTUAL ENV:" $VIRTUAL\_ENV**  **pip install flake8 pytest**  **if [ -f requirements.txt ]; then pip install -r requirements.txt; fi**  **pip install -e video-server/[dev]**  **pip install pytest==6.2.5**  **pip install cerberus**  **pip install pytest-html**  **sudo chmod +x /home/runner/work/Video-Proccessing-and-Storaging-Service\_Nhom23\_Detai15/Video-Proccessing-and-Storaging-Service\_Nhom23\_Detai15/video-server/src/videoserver/lib/video\_editor/script/capture\_list\_frames.sh**  **pytest --html=report.html**  **- name: SSH into EC2 instance + Deploy**  **uses: appleboy/ssh-action@master**  **with:**  **host: ${{ secrets.SSH\_HOST }}**  **username: ${{ secrets.SSH\_USERNAME }}**  **key: ${{ secrets.SSH\_PRIVATE\_KEY }}**  **port: ${{ secrets.SSH\_PORT }}**  **script: |**  **git clone https://github.com/NMS1010/Video-Proccessing-and-Storaging-Service\_Nhom23\_Detai15**  **cd Video-Proccessing-and-Storaging-Service\_Nhom23\_Detai15/**  **sudo apt-get update**  **sudo apt-get install -y docker.io**  **sudo systemctl start docker**  **sudo systemctl enable docker**  **sudo curl -L "https://github.com/docker/compose/releases/download/1.29.2/docker-compose-$(uname -s)-$(uname -m)" -o /usr/local/bin/docker-compose**  **sudo chmod +x /usr/local/bin/docker-compose**  **sudo docker-compose down**  **sudo docker-compose up -d** |
| --- |

File trên được Github Action trigger khi có event push hoặc tạo pull request trên nhánh master

Sau đó lần lượt thực hiện các thao tác bằng các lệnh

* Checkout repository
* Cài đặt và chạy MongoDB
* Cài đặt thư viện FFmpeg
* Cài đặt và chạy RabbitMQ
* Cài đặt python virtual environment và các package liên quan
* Chạy lệnh cài đặt video-server app và sau đó chạy pytest để test các test case có sẵn
* Sau khi pass hết test, kết nối tới EC2 instance và tiến hành deploy project

Link file trên github: <https://github.com/NMS1010/Video-Proccessing-and-Storaging-Service_Nhom23_Detai15/blob/master/.github/workflows/python-app.yml>