Contents

[1. Create a GitHub repository with project code 2](#_Toc138711851)

[2. Use image repository to store Docker images 4](#_Toc138711852)

[3. Execute linting step in code pipeline 5](#_Toc138711853)

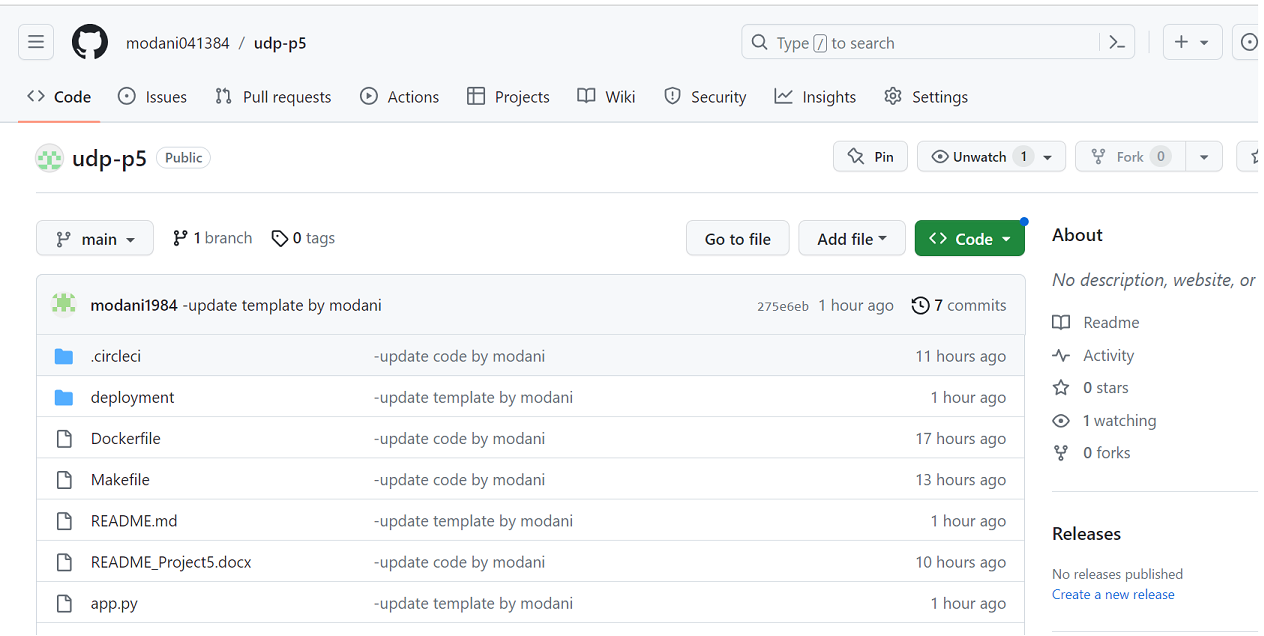
[4. Build a Docker container in a pipeline 8](#_Toc138711854)

[5. The Docker container is deployed to a Kubernetes cluster 9](#_Toc138711855)

[6. The Docker container is deployed to a Kubernetes cluster 11](#_Toc138711856)

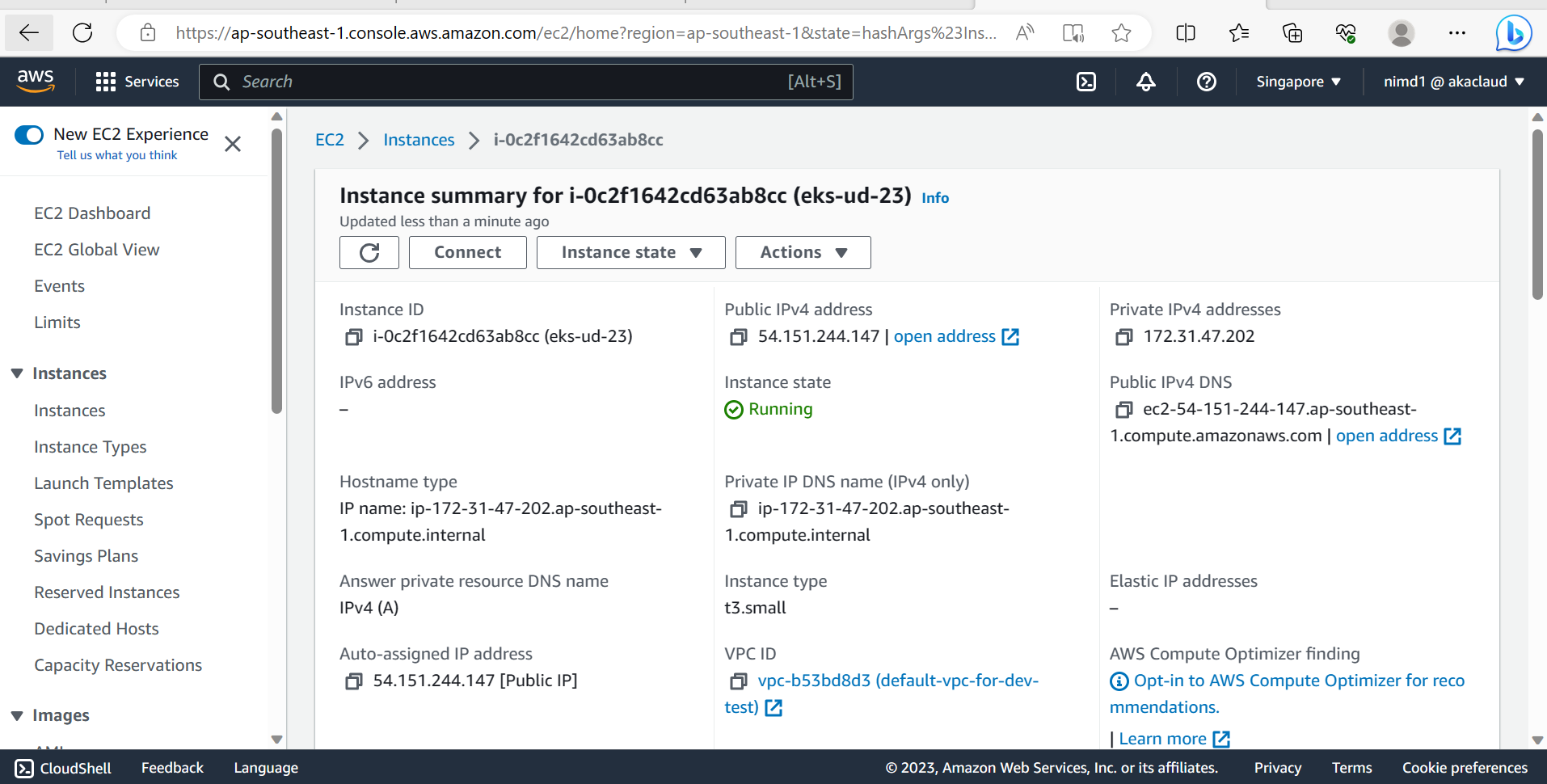
[7. Use a Rolling Deployment successfully 12](#_Toc138711857)

# Create a GitHub repository with project code

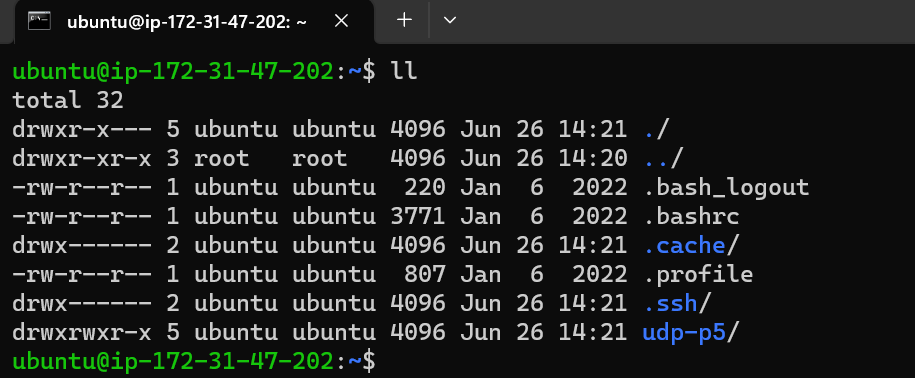


URL our Github is: <https://github.com/modani041384/udp-p5.git>

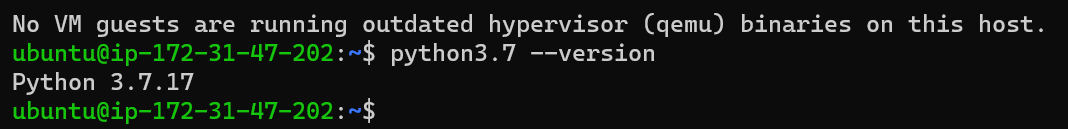
* Create EC2 Instance



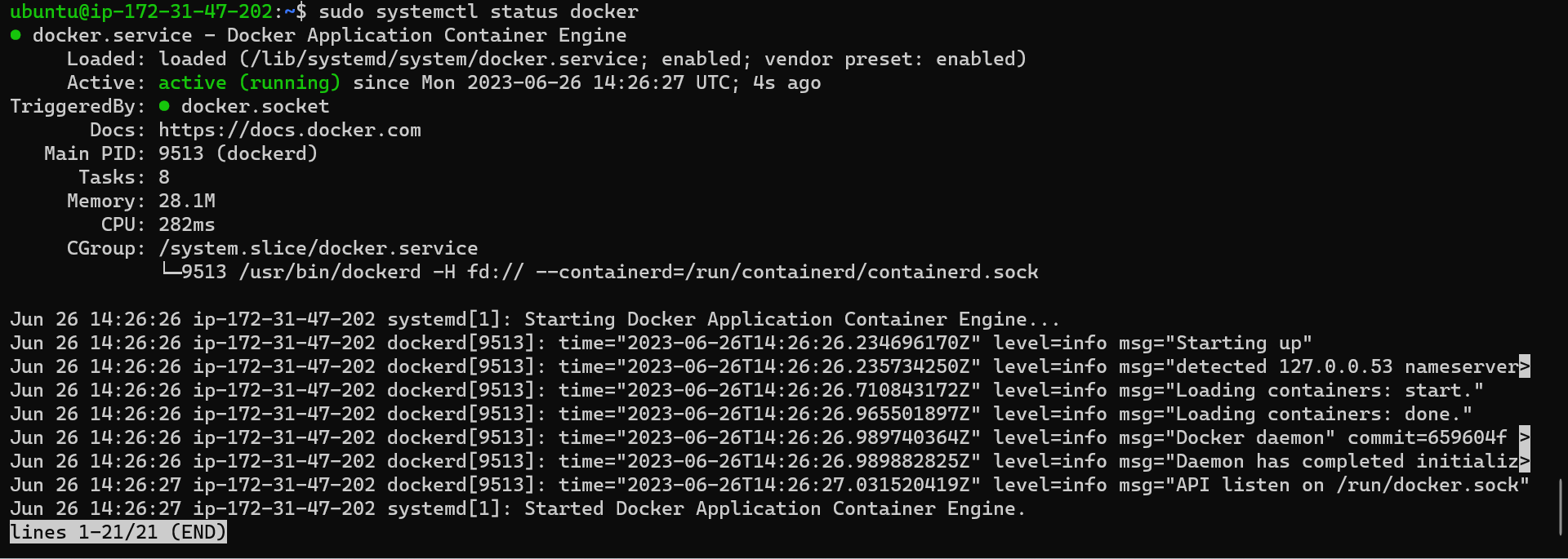
* Install infra
* Get resource from git by: git clone <https://github.com/modani041384/udp-p5.git>



* Install python3.7



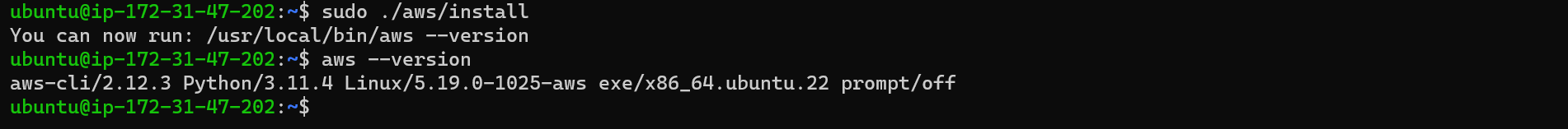
* Install docker



* Install kubectl



* install AWS CLI

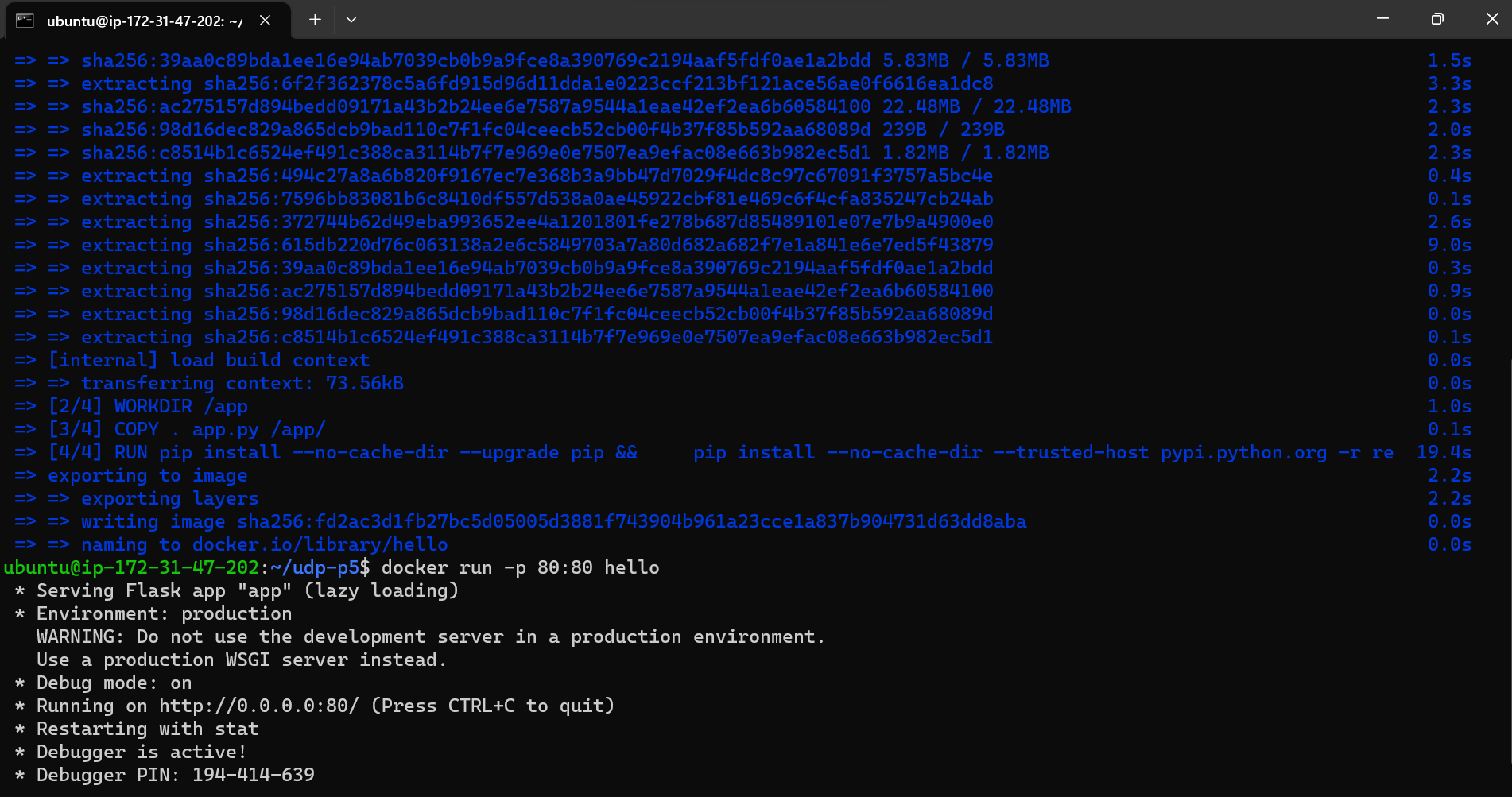


* install eksctl



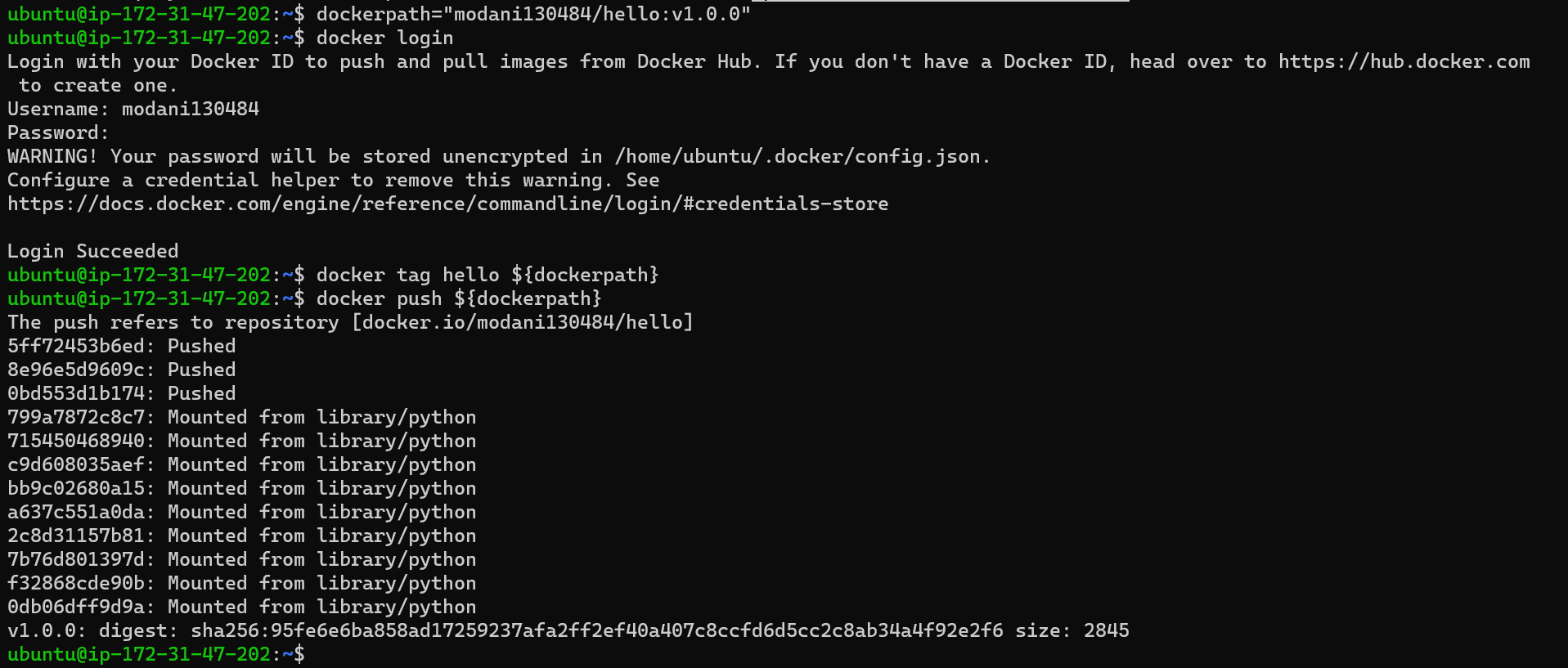
# Use image repository to store Docker images

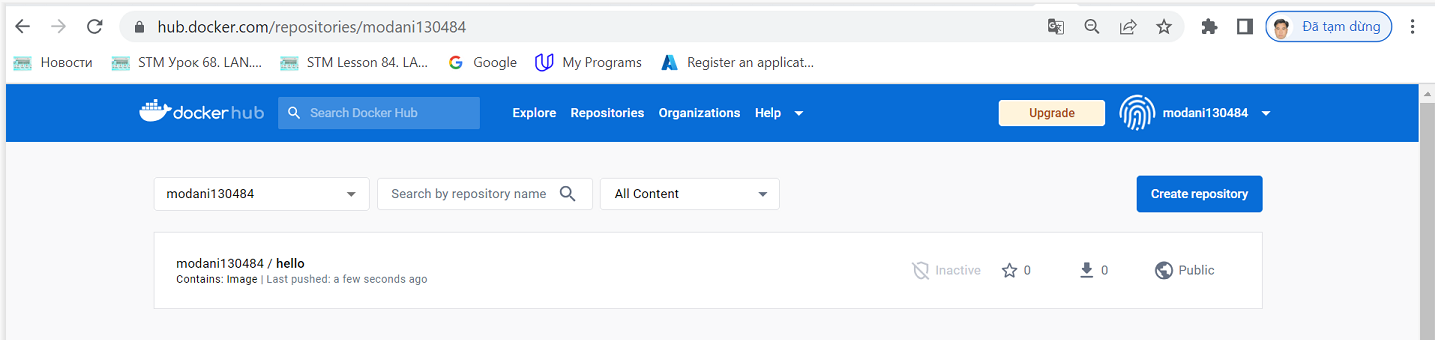
* Run docker

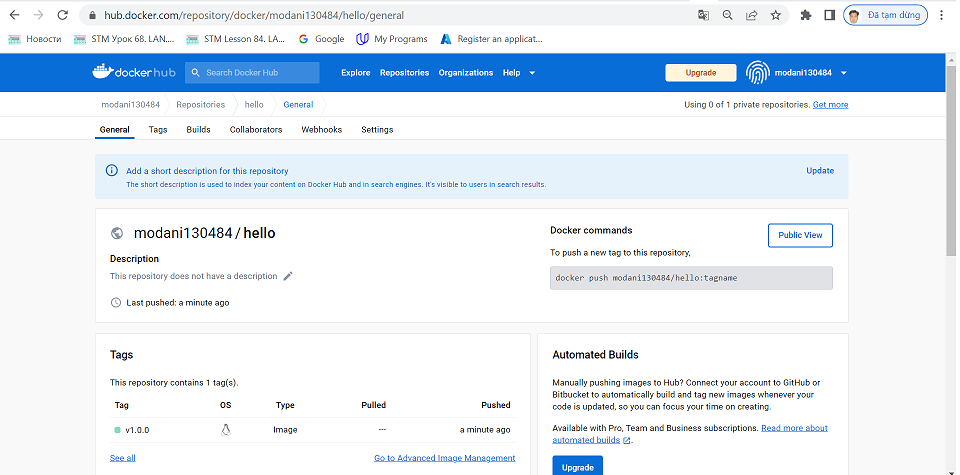




* Update docker images





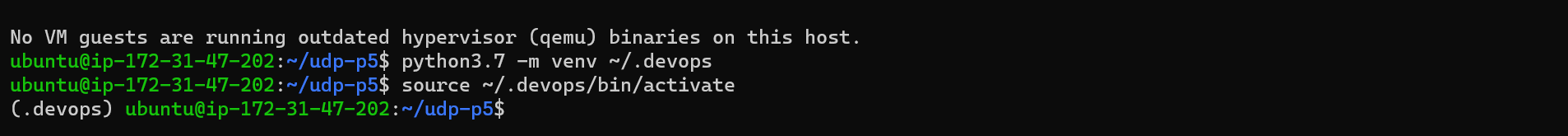


# Execute linting step in code pipeline

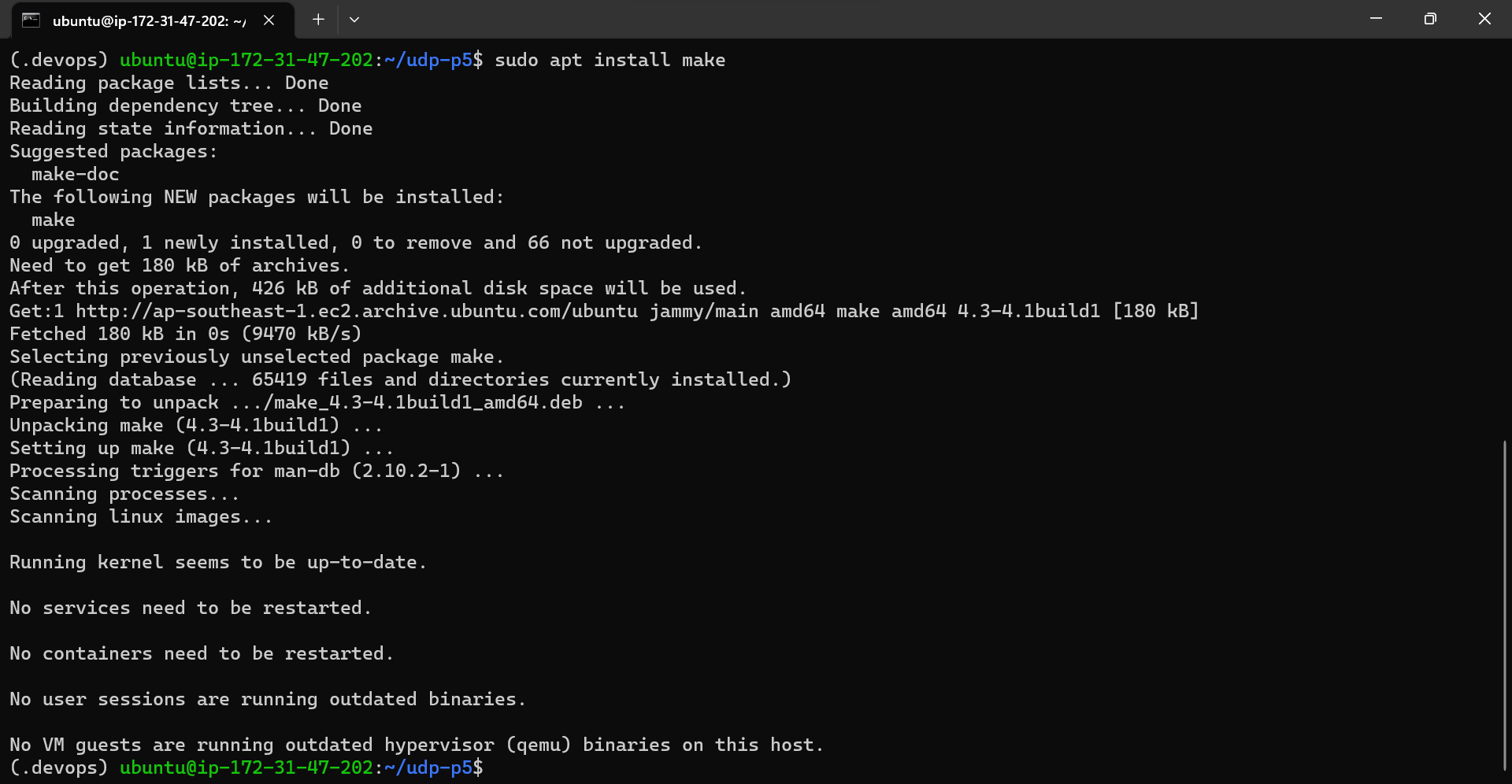
sudo apt install python3.7-venv

python3.7 -m venv ~/.devops

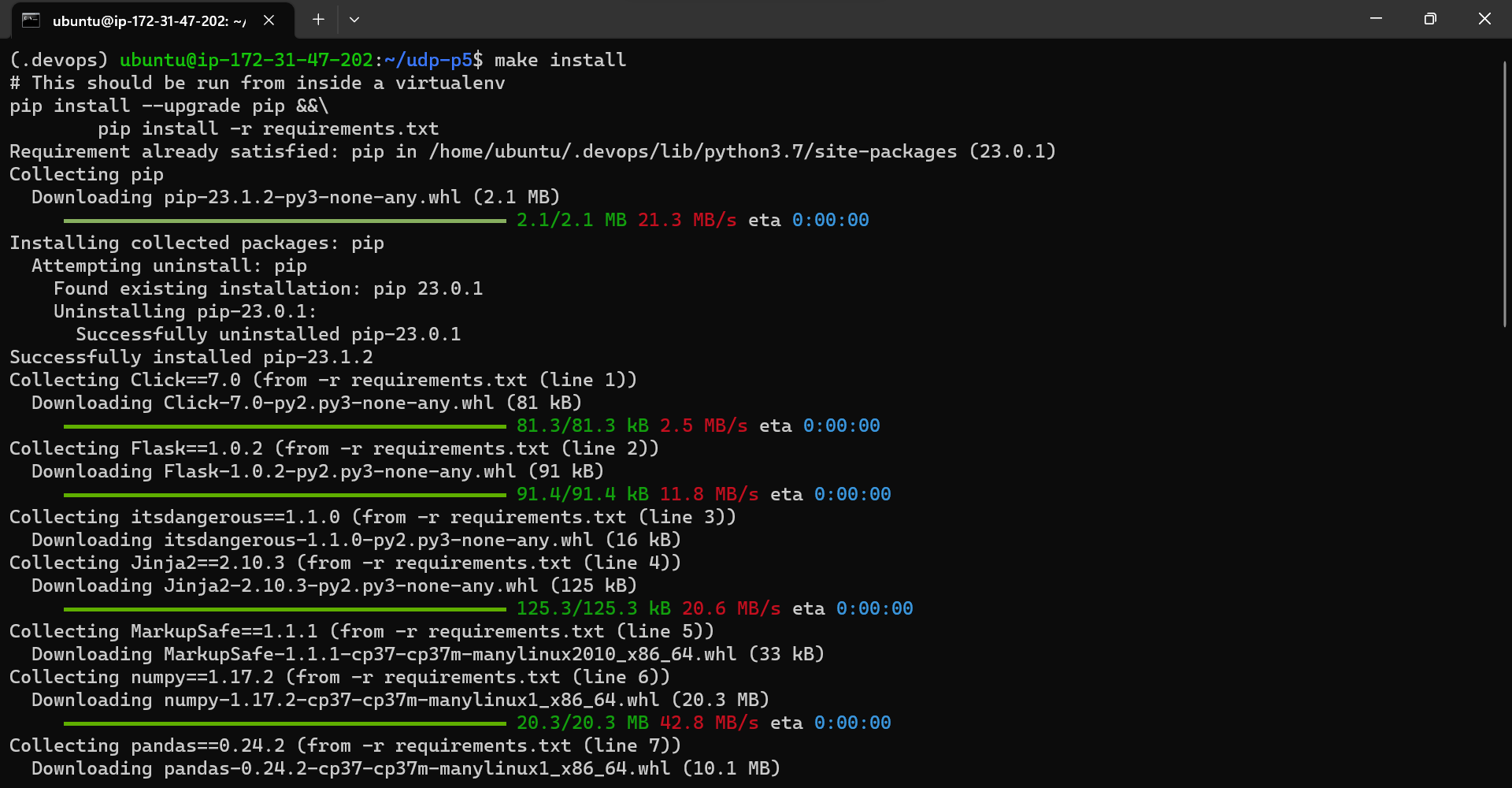
source ~/.devops/bin/activate

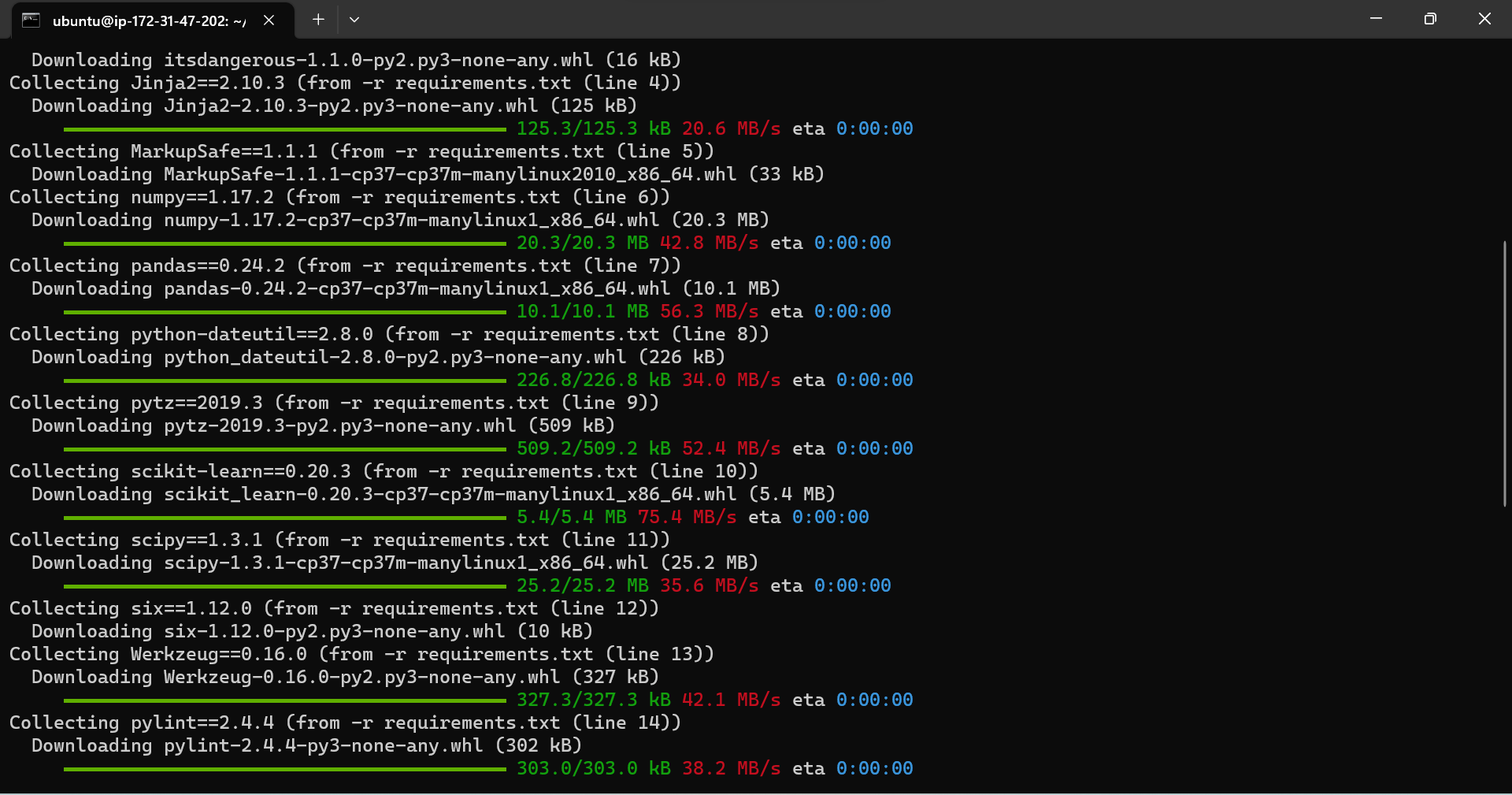


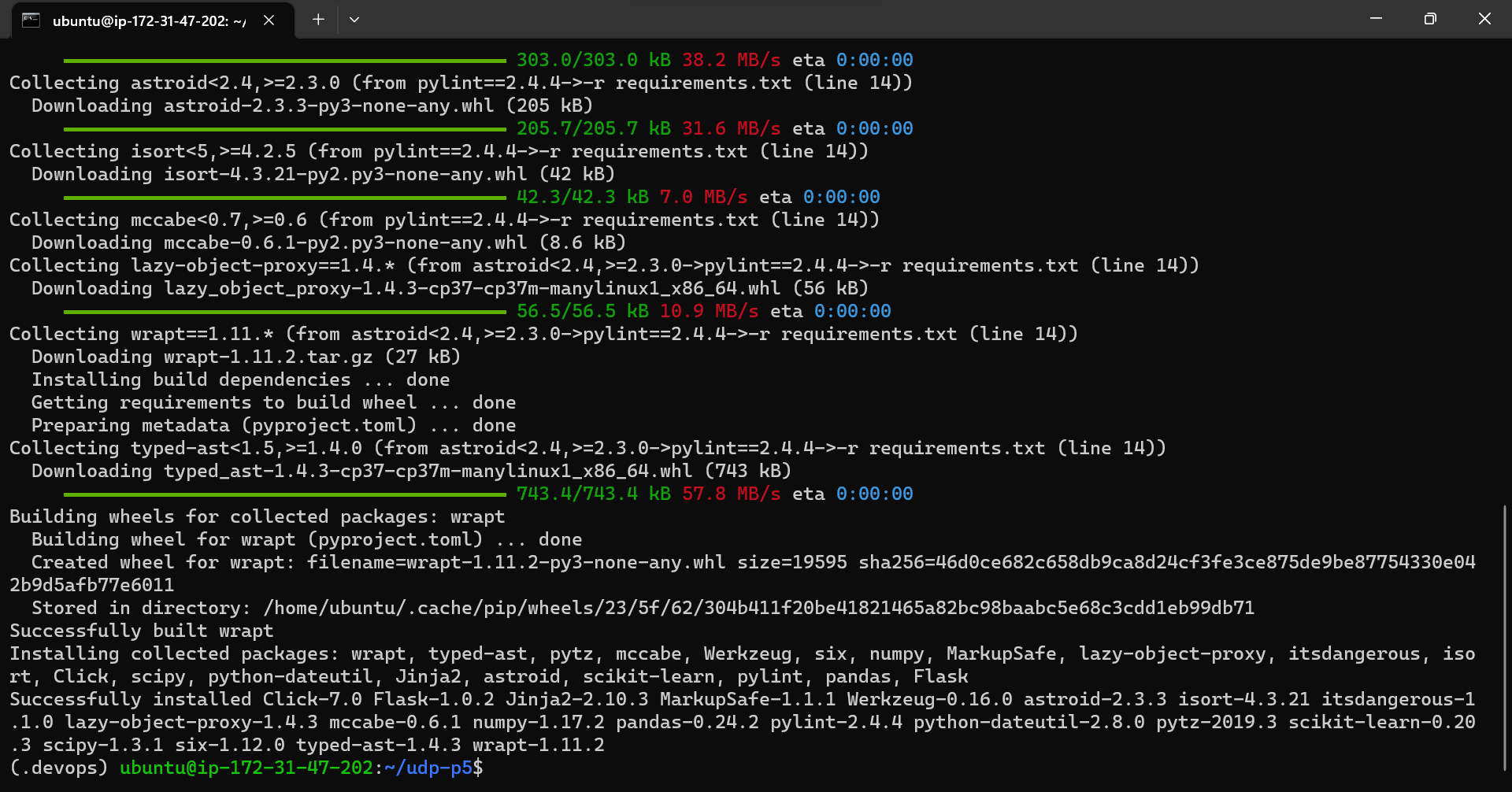
sudo apt install make



Then, we can run: **make install**



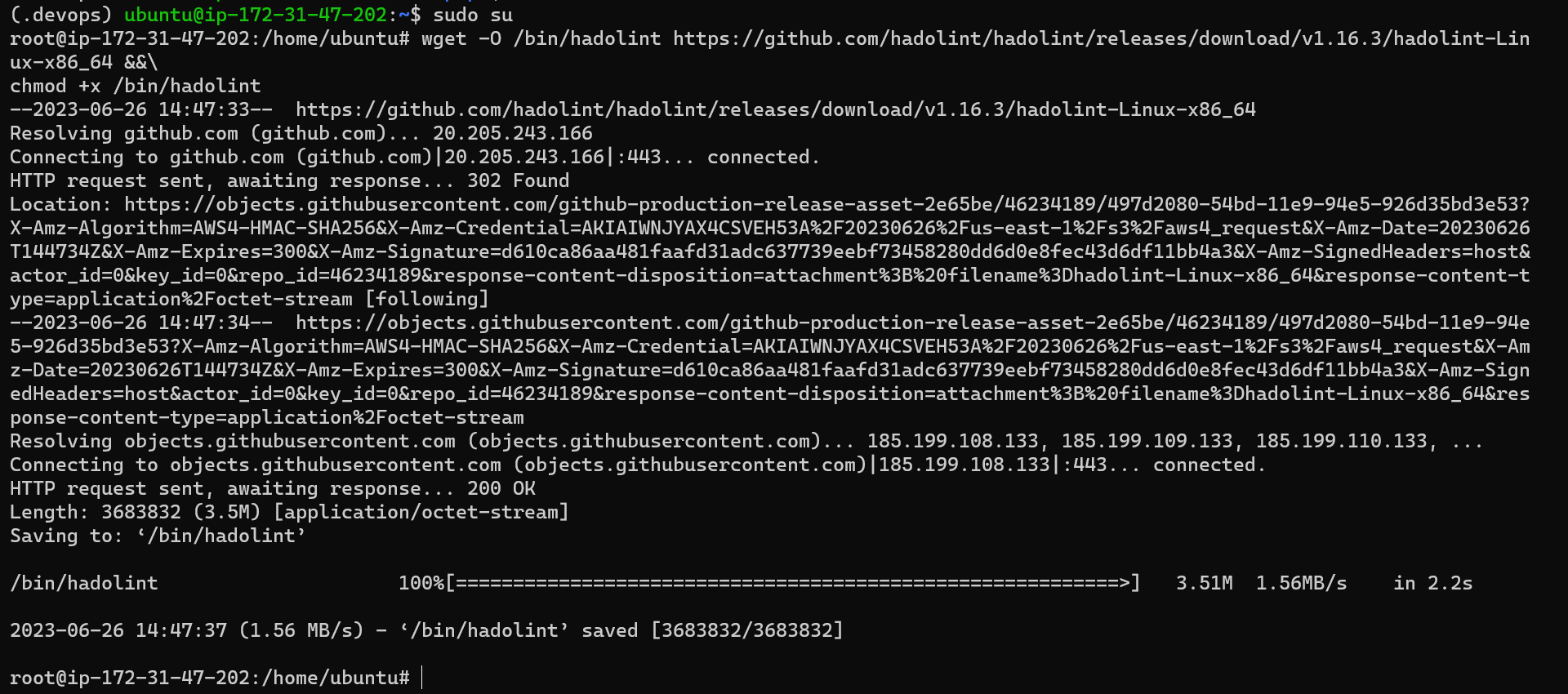




Then, we install hadolint

wget -O /bin/hadolint https://github.com/hadolint/hadolint/releases/download/v1.16.3/hadolint-Linux-x86\_64 &&\

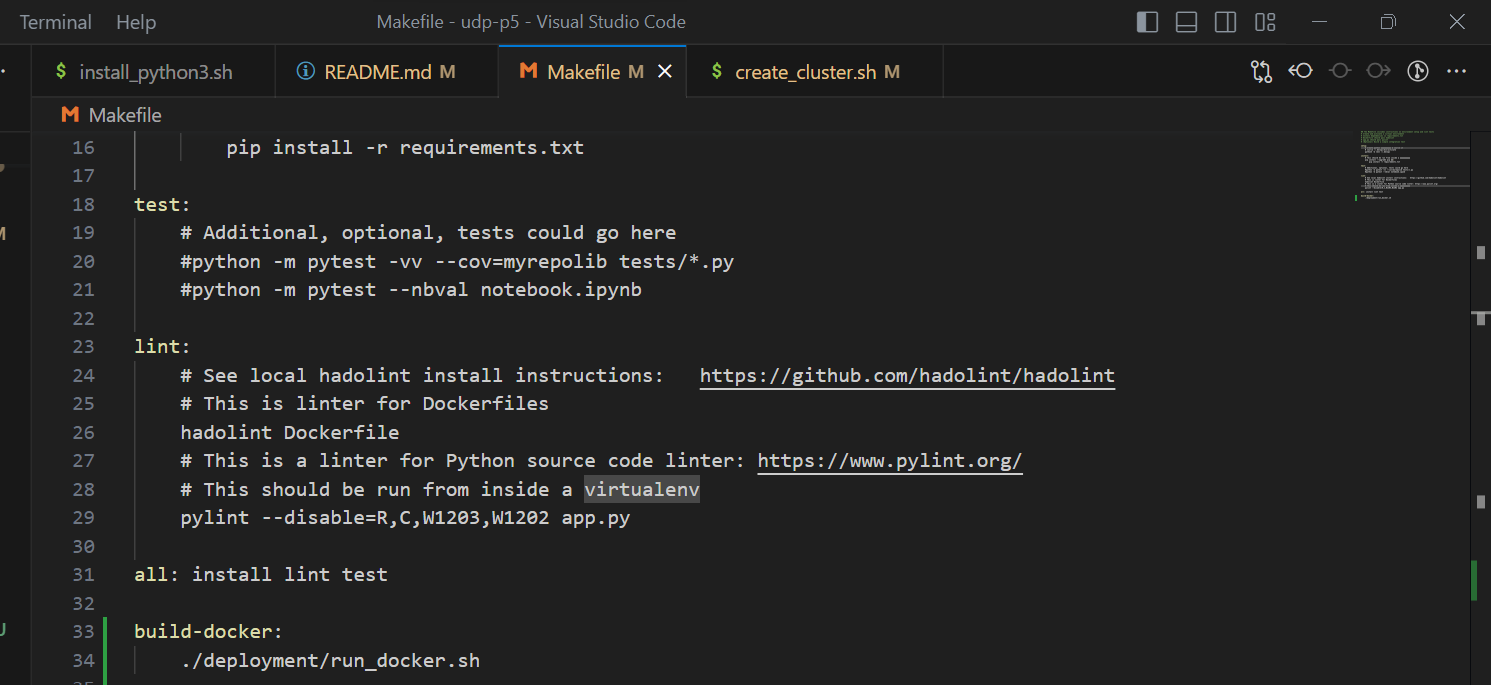
chmod +x /bin/hadolint

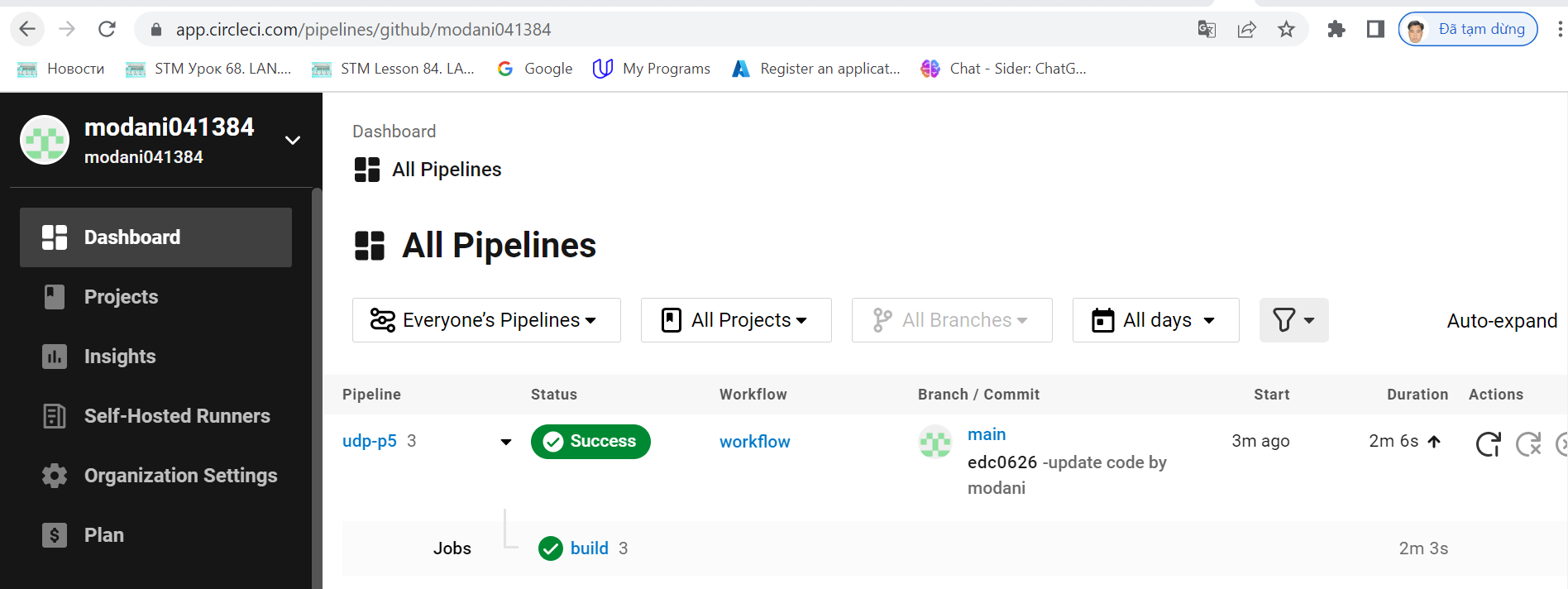


Then, we can run **make lint**



# Build a Docker container in a pipeline



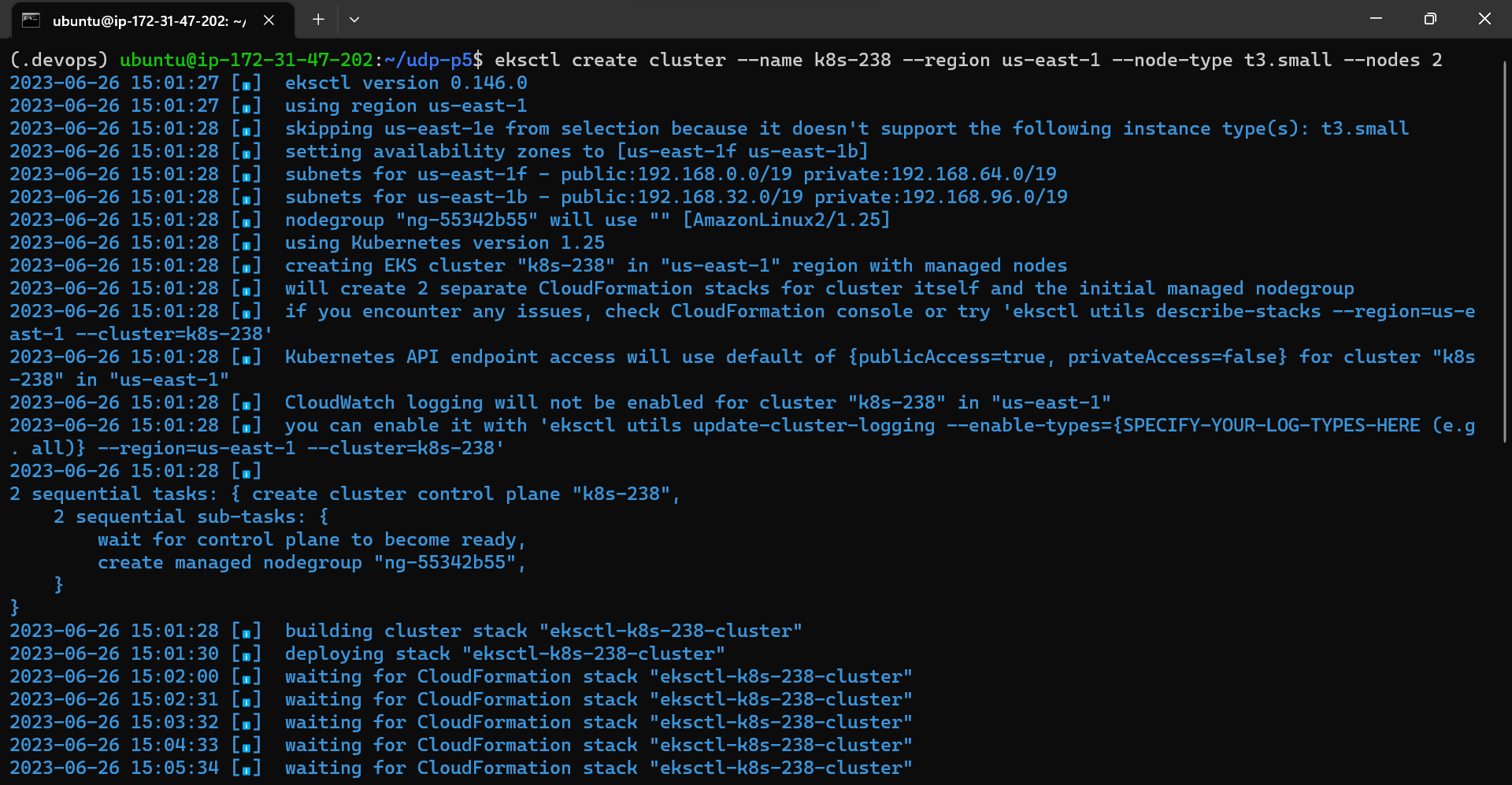


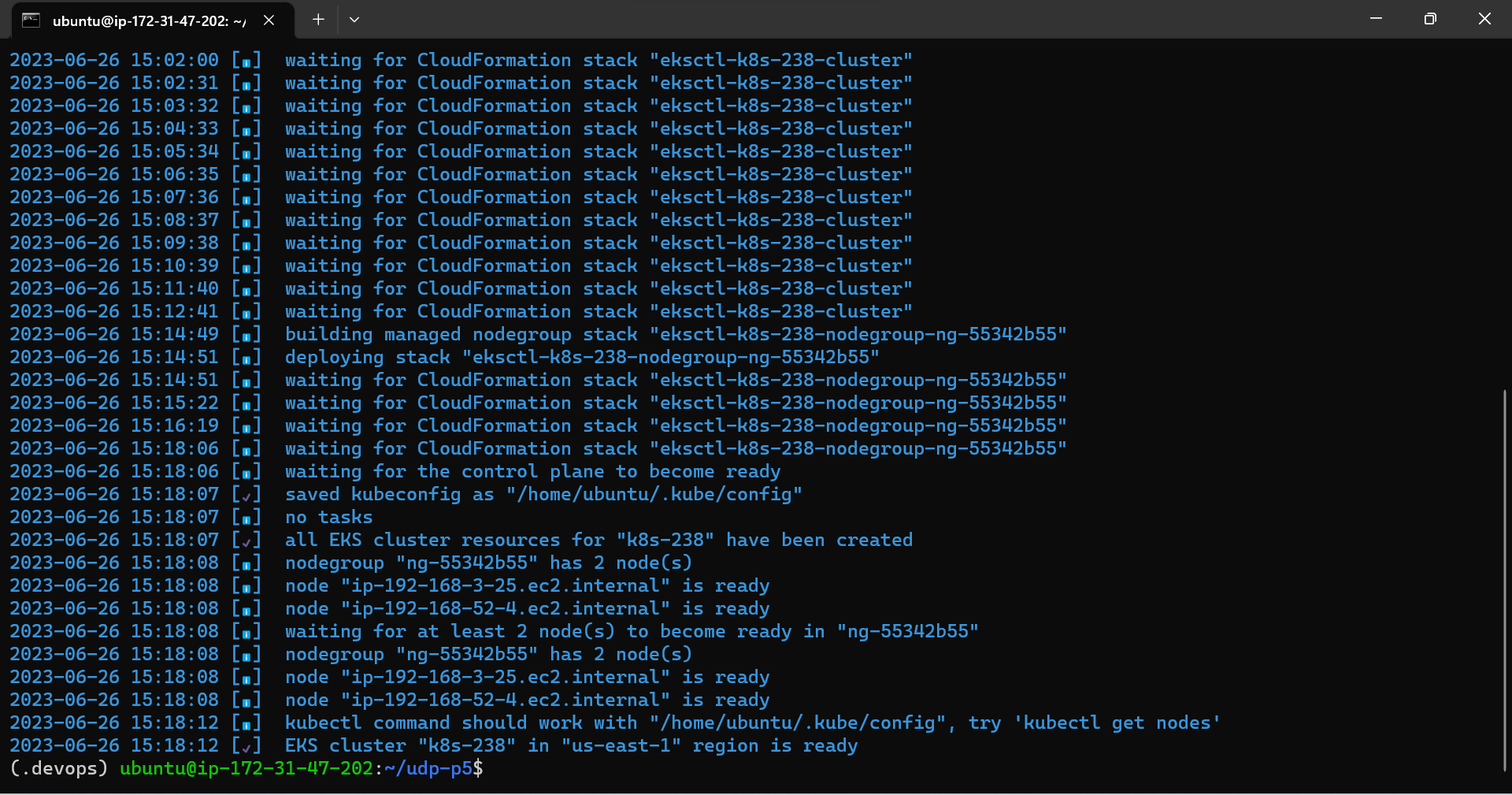
# The Docker container is deployed to a Kubernetes cluster

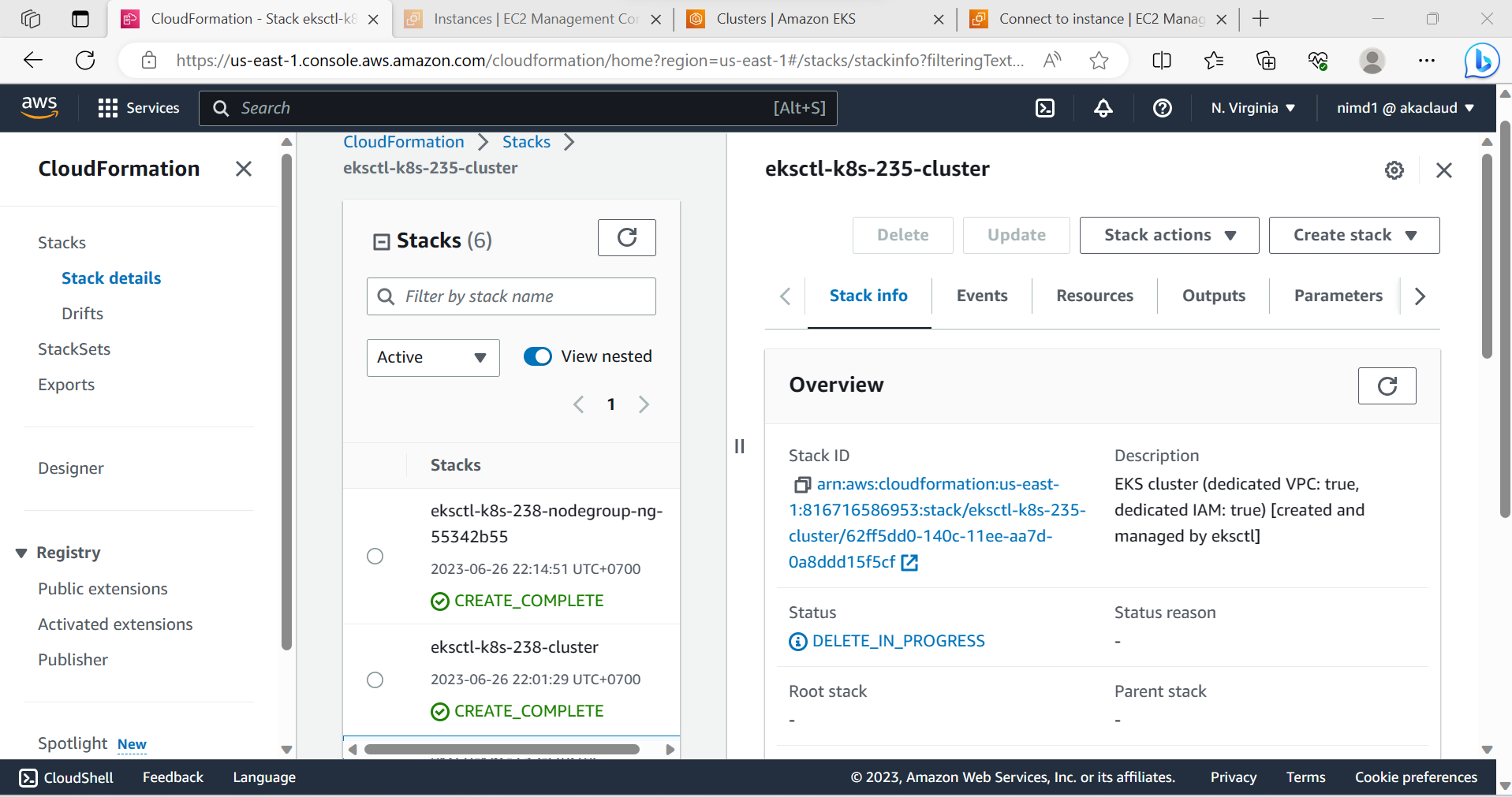
* aws configure

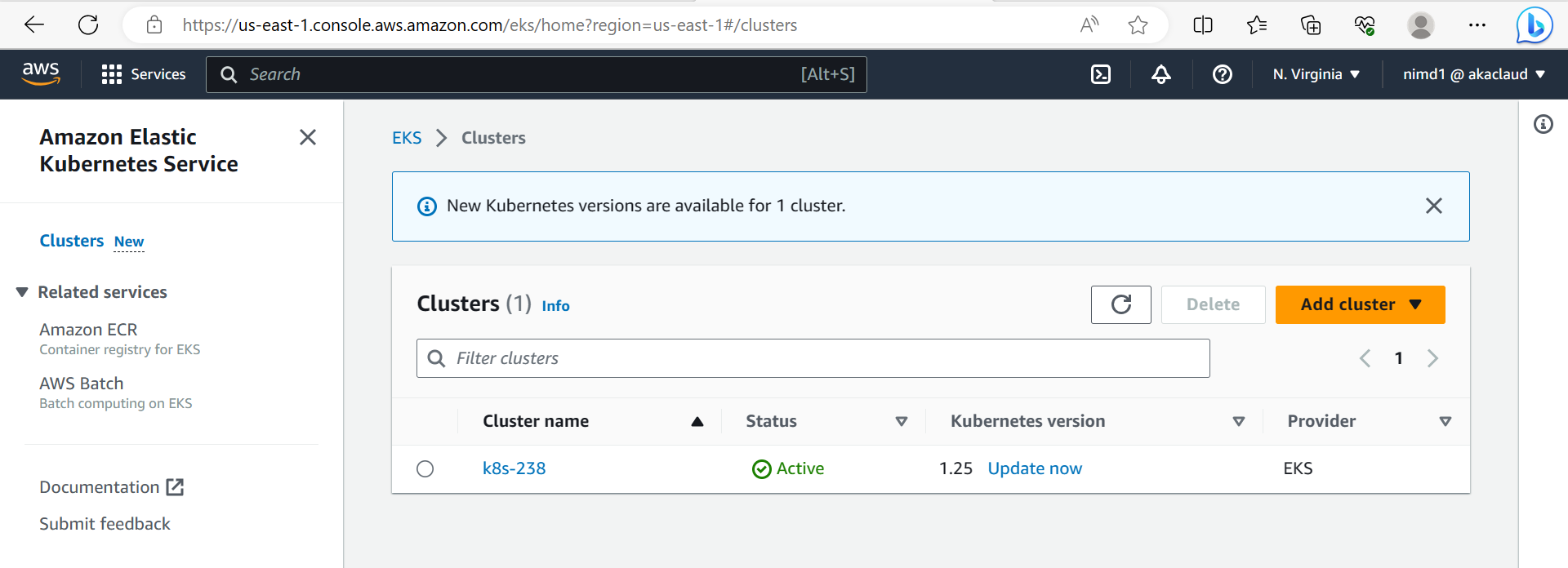


* Create cluster







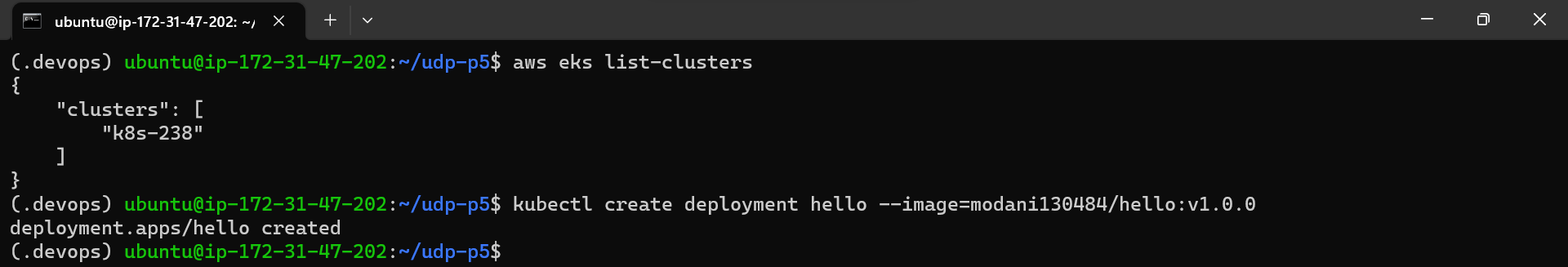


* get list clusters

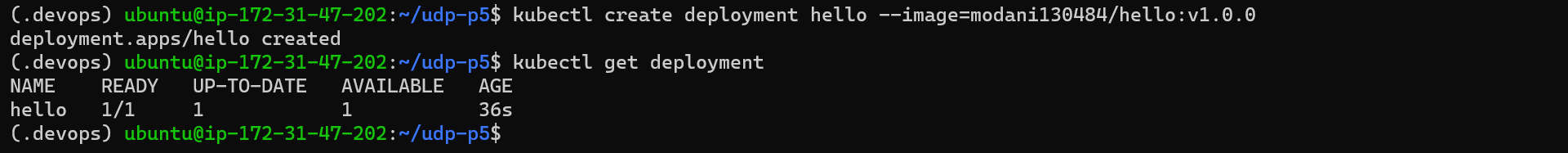


# The Docker container is deployed to a Kubernetes cluster

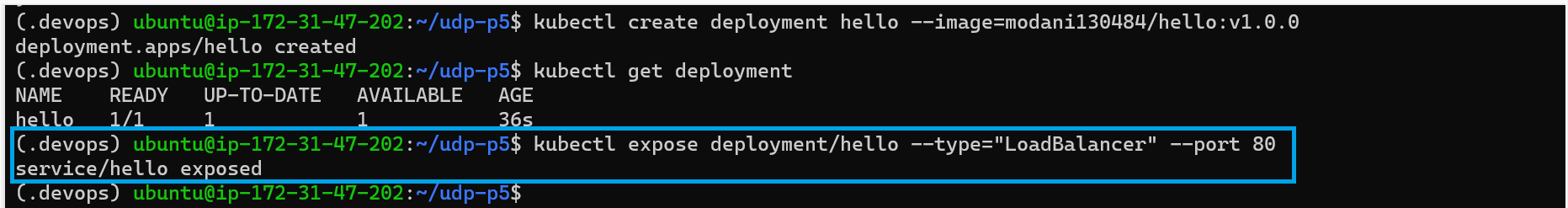
* deployement kubernet



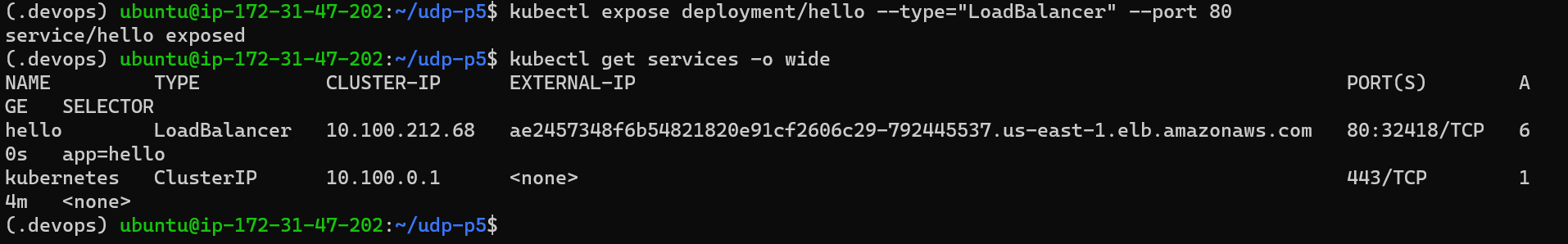
* get status after deployment

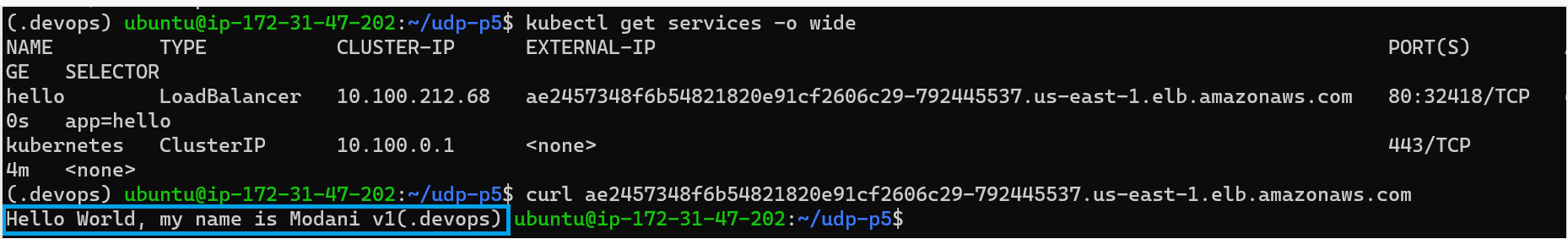


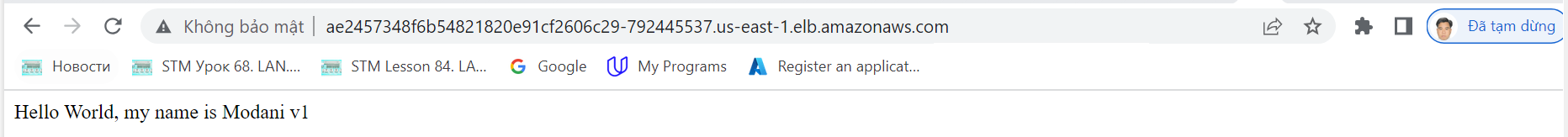
* expose deployment



* get information after expose deployment





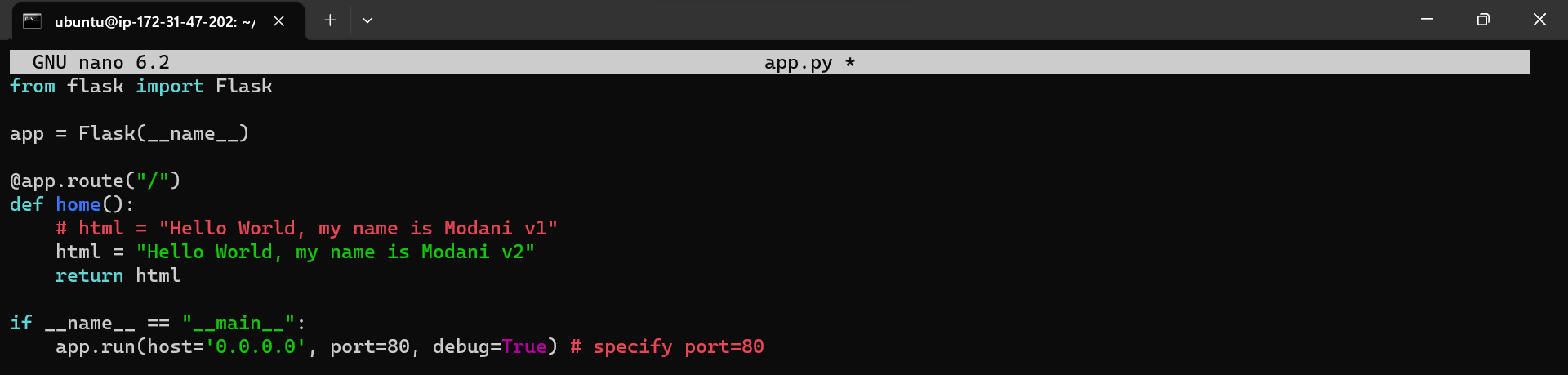


URL: http://ae2457348f6b54821820e91cf2606c29-792445537.us-east-1.elb.amazonaws.com/

# Use a Rolling Deployment successfully

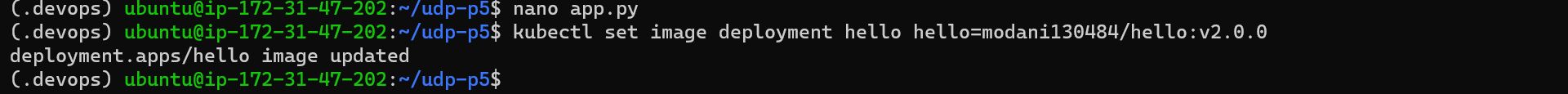
* rolling-update

First, we update the new version of the application to docker containers

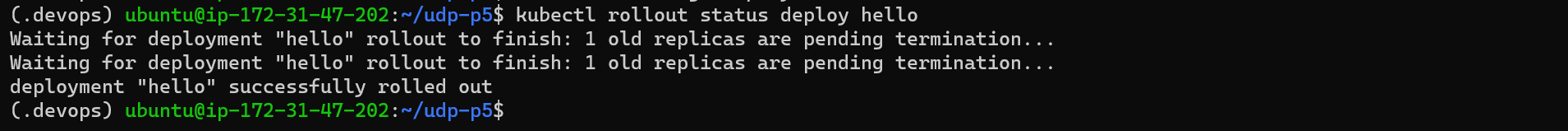


* Then, we can update the again pod with the command line

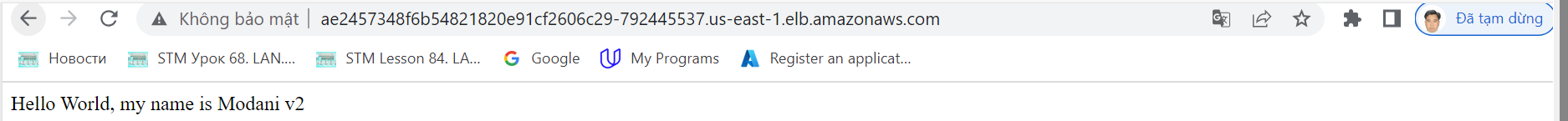
kubectl set image deployment <deployment-name> <container-name>=<new-image>



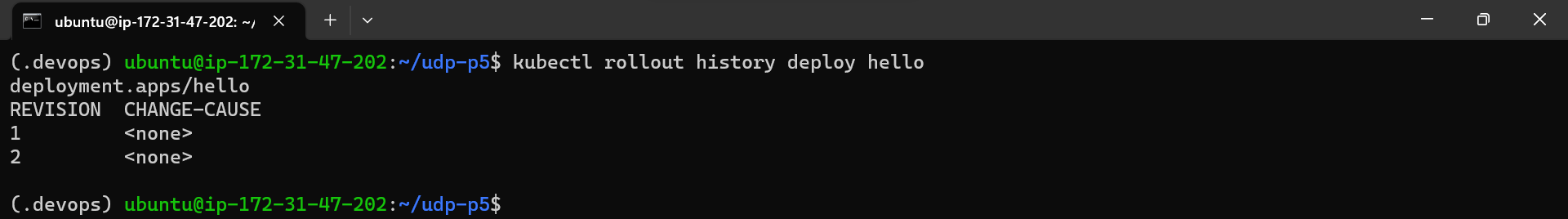
* get status after rolling-update



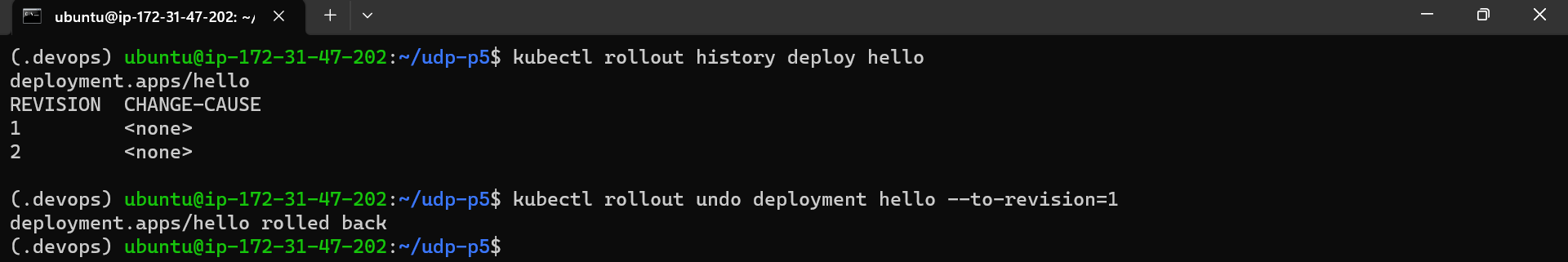
* Then, we have



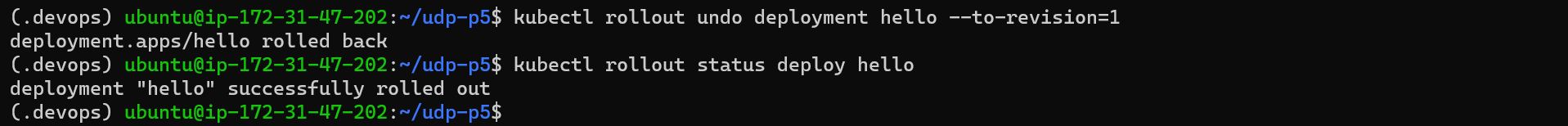
* Rollback version before
* check version app that we have



* Then, we choose the version that want to rollback (Example 1)



Check status



Then, we have

