Group 2’s Documentation
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Process
Created a EC2 with a ubuntu ami on aws.
Ssh into public ec2

```
sudo apt-get update
Sudo apt-get upgrade
```

https://dev.to/kamalhossain/how-to-run-docker-containers-in-aws-ec2-3bh0
Install docker onto public ec2:

```
sudo apt-get install \
    apt-transport-https \
    ca-certificates \
    curl \
    gnupg-agent \
    software-properties-common
curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add -
apt-cache madison docker-ce
sudo apt install docker.io
sudo apt install docker-compose
sudo usermod -a -G docker ubuntu (so you don’t have to use sudo afterwards)
```

Exit and ssh back in

Create jenkinsfile and dockerfile on a github repo
Paste the code from the pdf into the jenkinsfile

```
pipeline {
agent { label "your label"}
environment{
DOCKERHUB_CREDENTIALS = credentials(‘your username-dockerhub')
}
stages {
stage ('Build') {
steps {
sh ‘’'docker build [docker-username]/[enter-new-name-here]-demo .'’’
}
}
stage ('Login') {
```

```
steps {
sh ‘’'echo $DOCKERHUB_CREDENTIALS_PSW | docker login -u
$DOCKERHUB_CREDENTIALS_USR --password-stdin'’’
}}
stage ('Push') {
steps {
sh ‘’'docker push [docker-username]/[enter-new-name-here]-
demo:latest'’’
}
}
}
}
```

```
docker pull jenkins/jenkins
```

Create ECS Cluster
Create ECR
Sudo apt install awscli
Aws configure
Push up the image to the repository
Copy the URI from the image that was pushed up
Create a Task definition
Paste in the URI and fill in the required/necessary fields (Port mapping to 8080)
Run the task in your cluster
Edit security group to allow port 8080
Get jenkins password and install suggested plugins
Install docker pipeline plugin and aws ec2 plugin

Create a Jenkinsfile and Dockerfile on your github

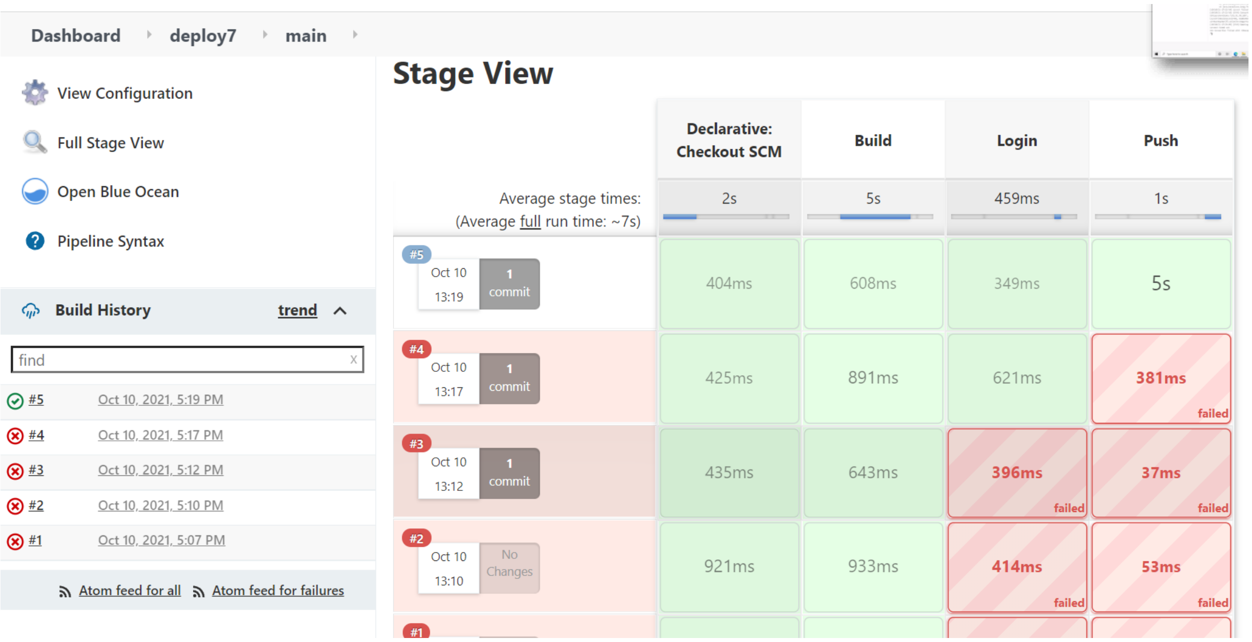
Paste the following into your dockerfile...

```
FROM openjdk:11

COPY demo-0.0.1-SNAPSHOT.jar .

CMD java -jar demo-0.0.1-SNAPSHOT.jar
```

Drop the jar file into your repository

Generate token from dockerhub
Follow the steps provided by dockerhub when you generate your token..
Add the token as a password to your jenkins global credentials
Create a multi branch pipeline on your jenkins
Update your Jenkins plugins!!!
Build the pipeline and it should be successful

Useful Links
https://hub.docker.com/r/jenkins/jenkins
https://dev.to/kamalhossain/how-to-run-docker-containers-in-aws-ec2-3bh0

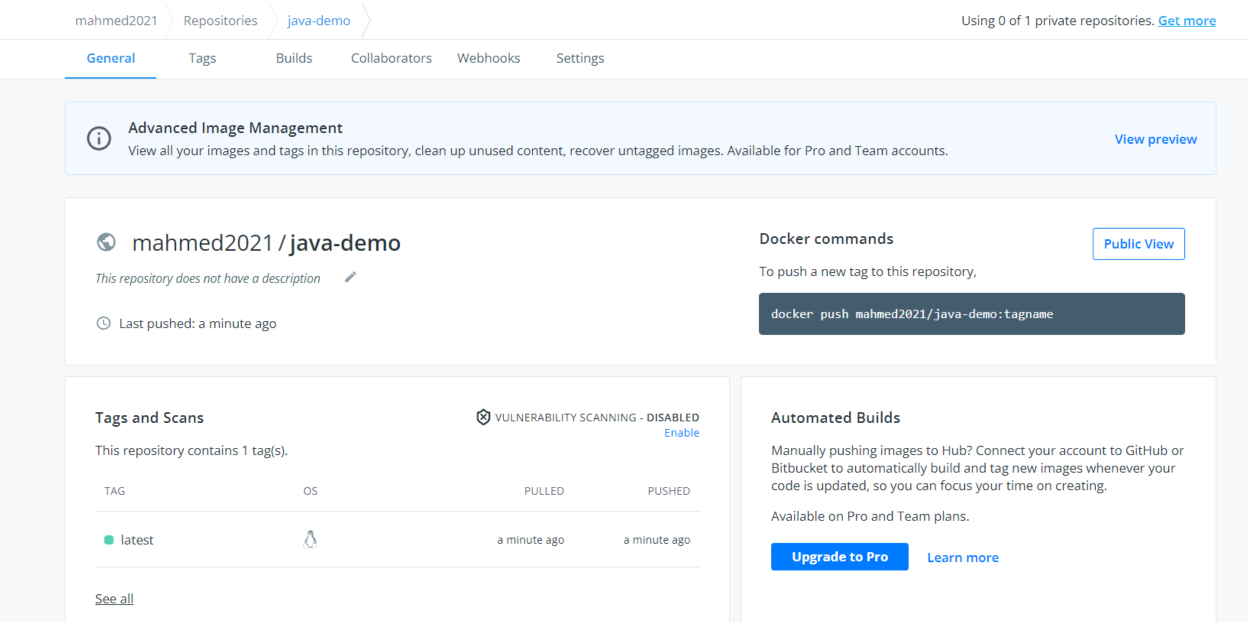


Dashboard › deploy7 › main ›

✓ #5	Oct 10, 2021, 5:19 PM
⊗ #4	Oct 10, 2021, 5:17 PM
⊗ #3	Oct 10, 2021, 5:12 PM
⊗ #2	Oct 10, 2021, 5:10 PM
⊗ #1	Oct 10, 2021, 5:07 PM

Stage View

	Declarative: Checkout SCM	Build	Login	Push
Average stage times: (Average full run time: ~7s)	2s	5s	459ms	1s
#5 Oct 10 13:19 1 commit	404ms	608ms	349ms	5s
#4 Oct 10 13:17 1 commit	425ms	891ms	621ms	381ms failed
#3 Oct 10 13:12 1 commit	435ms	643ms	396ms failed	37ms failed
#2 Oct 10 13:10 No Changes	921ms	933ms	414ms failed	53ms failed
#1				



Using 0 of 1 private repositories. Get more

Advanced Image Management

View all your images and tags in this repository, clean up unused content, recover untagged images. Available for Pro and Team accounts.

View preview

mahmed2021 / **java-demo**

This repository does not have a description

Last pushed: a minute ago

Docker commands

Public View

To push a new tag to this repository,

```
docker push mahmed2021/java-demo:tagname
```

Tags and Scans

VULNERABILITY SCANNING - **DISABLED**
Enable

This repository contains 1 tag(s).

TAG	OS	PULLED	PUSHED
latest	🐧	a minute ago	a minute ago

See all

Automated Builds

Manually pushing images to Hub? Connect your account to GitHub or Bitbucket to automatically build and tag new images whenever your code is updated, so you can focus your time on creating.

Available on Pro and Team plans.