

Activities Google Chrome Oct 6 18:09

github.com/Nader-Tarek/Booster_CI_CD_Project

1. Just forked the GitHub Repository

Search or jump to... Pull requests Issues Marketplace Explore

Nader-Tarek / Booster_CI_CD_Project Public

forked from mahmoud254/Booster_CI_CD_Project

< Code Pull requests Actions Projects Wiki Security Insights Settings

master 2 branches 0 tags

This branch is even with mahmoud254:master.

Contribute Fetch upstream

mahmoud254 Update requirements.txt ddbacfe on Sep 3, 2020 10 commits

simpleApp	first commit	2 years ago
README.md	Update README.md	13 months ago
manage.py	first commit	2 years ago
requirements.txt	Update requirements.txt	13 months ago

README.md

Booster_CI_CD_Project

Create CI/CD pipeline using Jenkinsfile to deploy simple django web app as a microservice running on docker container locally

Steps

- 1- Fork this repo to your account
- 2- write dockerfile inside the forked repo to create new image from base image ubuntu and install python3.6 and pip3 and copy the source code files of the app to this image and configure it to start the server when creating container (check the below section for steps to start the django server)

About

No description, website, or topics provided.

Readme

Releases

No releases published
Create a new release

Packages

No packages published
Publish your first package

Languages

Python 100.0%

Activities Google Chrome Oct 6 18:13

Booster_CI_CD_Project/Booster_CI_CD_Project/blob/master/Dockerfile

2. Here is the Dockerfile for the Django-App

github.com/Nader-Tarek/Booster_CI_CD_Project/blob/master/Dockerfile

forked from mahmoud254/Booster_CI_CD_Project

< Code Pull requests Actions Projects Wiki Security Insights Settings

master Booster_CI_CD_Project / Dockerfile

Go to file

Nader-Tarek Adding Dockerfile Latest commit c89957c 3 minutes ago History

All 1 contributor

23 lines (15 sloc) 483 Bytes

Raw Blame

```
1 FROM ubuntu:bionic
2
3 RUN apt update
4 RUN apt upgrade -y
5
6 RUN apt install software-properties-common -y
7 RUN add-apt-repository ppa:deadsnakes/ppa
8 RUN apt install python3.7 -y
9
10 RUN apt install python3-pip -y
11 RUN python3 -m pip install --upgrade pip
12
13 COPY . /simpleApp
14
15 WORKDIR /simpleApp
16
17 EXPOSE 8000
18
19 RUN pip3 install -r requirements.txt
20 RUN python3 manage.py makemigrations
21 RUN python3 manage.py migrate
22
23 CMD ["python3.6", "manage.py", "runserver", "0.0.0.0:8000"]
```

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Activities Terminal Oct 6 18:41

Nader-Tarek/Booster_CI_CD_Project/tree/master

manage.py first commit 2 years ago
requirements.txt Update requirements.txt 13 months ago

README.md

Booster_CI_CD_Project

Create CI/CD pipeline using Jenkinsfile to deploy simple django web app as a microservice running on docker container locally

Steps

- 1- Fork this repo to yo
- 2- write dockerfile insi and copy the source c (check the below sect
- 3- configure ubuntu sl
- 4- create slick workspe
- 5- install any plugin fr
- 6- write Jenkinsfile with
 - preparation: chec
 - build image: build
 - push image: pus
- 7- configure job in Jenkins using multibranch pipeline type with the forked git repo url

Steps to start django server

3. Creating the Jenkins Server container

```
nader@ntcs:~$ sudo docker run -dt -p 8080:8080 --name jenkins-server 619aabb05041
```

Activities Terminal Oct 6 18:43

Nader-Tarek/Booster_CI_CD_Project/tree/master

Sign in [Jenkins]

localhost:8080/login?from=%2F

Getting Started

Unlock Jenkins

To ensure Jenkins is securely set up by the administrator, a password has been written to the log ([not sure where to find it?](#)) and this file on the server:

```
/var/jenkins_home/secrets/initialAdminPassword
```

Please copy the password from either location and paste it below.

Administrator password

.....

4. Getting the Jenkins Server initial Psswd

```
nader@ntcs:~$ sudo docker ps
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS
bae973ccadca   619aabb0502 /sbin/tini -- /usr/...  47 seconds ago Up 45 se
conds         0.0.0.0:8080->8080/tcp, :::8080->8080/tcp, 50000/tcp jenkins-server
nader@ntcs:~$ sudo docker exec -it jenkins-server cat /var/jenkins_home/secrets/initialAdminPassword
2cf46a9b777b436a5a5efc7c2a91aee2
nader@ntcs:~$
```

Continue

5. Here is the Dockerfile for the Jenkins-Slave



```
FROM ubuntu
USER root

# setup jenkins environment
RUN mkdir -p jenkins_home
RUN chown 777 jenkins_home
RUN apt-get update -qq
RUN apt-get install -y apt-utils
#install openjdk
RUN apt-get install openjdk-8-jdk -qq
#install ssh server
RUN apt-get install openssh-server -qq
RUN useradd -ms /bin/bash jenkins

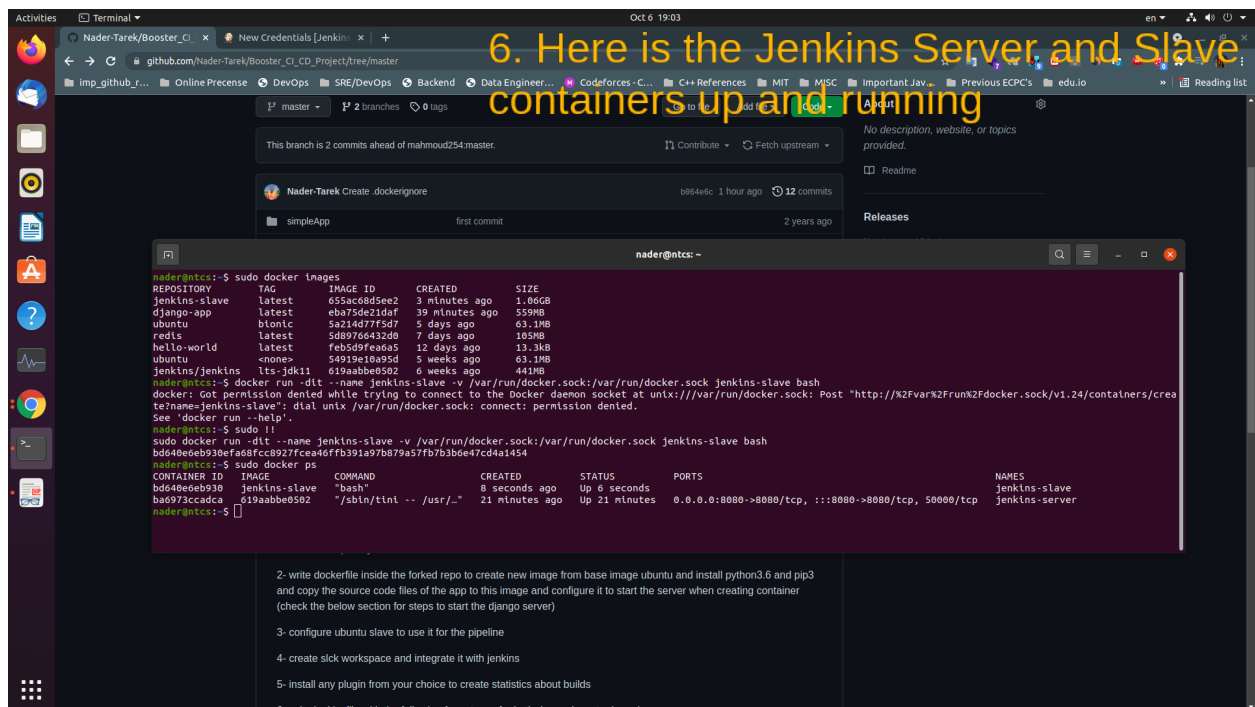
install docker client
RUN apt-get install -qq \
  apt-transport-https \
  ca-certificates \
  curl \
  gnupg \
  software-properties-common
RUN curl -fsSL https://download.docker.com/linux/ubuntu/gpg | apt-key add -
RUN add-apt-repository \
```

Steps to start django server

Install required packages:

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
jenkins-slave	latest	655ac68d5ee2	About a minute ago	1.06GB
django-app	latest	eba75de21daf	38 minutes ago	559MB

6. Here is the Jenkins Server and Slave containers up and running



```
nader@ntcs:~$ sudo docker run --name jenkins-slave -v /var/run/docker.sock:/var/run/docker.sock jenkins-slave bash
docker: Got permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Post "http://%2Fvar%2Frun%2Fdocker.sock/v1.24/containers/create?name=jenkins-slave": dial unix /var/run/docker.sock: connect: permission denied.
See 'docker run --help'.

nader@ntcs:~$ sudo run
sudo docker run --name jenkins-slave -v /var/run/docker.sock:/var/run/docker.sock jenkins-slave bash
bd640e6eb930efa08fcc8927fcea46ffb391a97b879a57fb7b3b6e47cd4a1454

nader@ntcs:~$ sudo docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS                               NAMES
bd640e6eb930   jenkins-slave "bash"                 8 seconds ago   Up 6 seconds   0.0.0.0:8080->8080/tcp, :::8080->8080/tcp, 50000/tcp   jenkins-slave
ba6973ccadca   jenkins-server "/sbin/tini -- /usr/_    21 minutes ago   Up 21 minutes   0.0.0.0:8080->8080/tcp, :::8080->8080/tcp, 50000/tcp   jenkins-server

nader@ntcs:~$
```

2- write dockerfile inside the forked repo to create new image from base image ubuntu and install python3.6 and pip3 and copy the source code files of the app to this image and configure it to start the server when creating container (check the below section for steps to start the django server)

3- configure ubuntu slave to use it for the pipeline

4- create slack workspace and integrate it with jenkins

5- install any plugin from your choice to create statistics about builds

6- write Jenkinsfile with the following four stages for both dev and master branch

Activities Google Chrome Oct 6 20:27 en

Jenkins

Dashboard Nodes

Back to Dashboard

Manage Jenkins

New Node

Configure Clouds

Node Monitoring

Build Queue

No builds in the queue.

Build Executor Status

1 Idle

2 Idle

Node name

slave-node

Permanent Agent

Adds a plain, permanent agent to Jenkins. This is called "permanent" because Jenkins doesn't provide higher level of integration with these agents, such as dynamic provisioning. Select this type if no other agent types apply — for example such as when you are adding a physical computer, virtual machines managed outside Jenkins, etc.

OK

7. Adding the new node to the jenkins server

REST API Jenkins 2.303.1

Activities Google Chrome Oct 6 20:34 en

slave-node log [jenkins]

Dashboard Nodes slave-node

```
MAIL=/var/mail/root
OPTERR=1
OPTIND=1
OSTYPE=linux-gnu
PATH=/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/games:/snap/bin
PIPESTATUS=(0)
PPID=391
PS4+=
PWD=/root
SHELL=/bin/bash
SHELLOPTS=braceexpand:hashall:interactive-comments
SHELVL=1
SSH_CLIENT=172.17.0.2 54392 22
SSH_CONNECTION=172.17.0.2 54392 172.17.0.3 22
TERM=dumb
UID=0
USER=root
_=""
Checking Java version in the PATH
openjdk version "1.8.0_292"
OpenJDK Runtime Environment (build 1.8.0_292-b10-0ubuntu1-18.04-b10)
OpenJDK 64-Bit Server VM (build 25.292-b10, mixed mode)
[10/06/21 18:34:11] [SSH] Checking java version of /jenkins_home/jdk/bin/java
Couldn't figure out the Java version of /jenkins_home/jdk/bin/java
bash: /jenkins_home/jdk/bin/java: No such file or directory

[10/06/21 18:34:11] [SSH] Checking java version of java
[10/06/21 18:34:12] [SSH] java -version returned 1.8.0_292.
[10/06/21 18:34:12] [SSH] Starting sttp client.
[10/06/21 18:34:12] [SSH] Copying latest remoting.jar...
[10/06/21 18:34:13] [SSH] Copied 1,507,326 bytes.
Expanded the channel window size to 4096
[10/06/21 18:34:13] [SSH] Starting agent process: cd "/jenkins home" && java -jar remoting.jar -workDir /jenkins_home -jar-cache /jenkins_home/remoting/jarCache
Oct 06, 2021 6:34:14 PM org.jenkinsci.remoting.engine.WorkDirManager initializeWorkDir
INFO: Using /jenkins_home/remoting as a remoting work directory
Oct 06, 2021 6:34:14 PM org.jenkinsci.remoting.engine.WorkDirManager setupLogging
INFO: Both error and output logs will be printed to /jenkins_home/remoting
====[JENKINS REMOTING CAPACITY]====channel started
Remoting version: 4.10
This is a Unix agent
Evacuated stdout
Agent successfully connected and online
👤
```

8. Agent successfully connected

REST API Jenkins 2.303.1

Activities Google Chrome Oct 6 20:46 en

Update Center [Jenkins] x Nader-Tarek/Booster_Ci x Slack | django-app-proje... x +

localhost:3080/updateCenter/

imp_github_f... Online Precense DevOps SRE/DevOps Backend Data Engineer... Codeforces - C... C++ References MIT MISC Important Jav... Previous ECPC's edu.io Reading list

Jenkins search Nader log out

Dashboard Update Center

Back to Dashboard Manage Jenkins Manage Plugins

Installing Plugins/Upgrades

Preparation

- Checking internet connectivity
- Checking update center connectivity
- Success

global-build-stats Success

Loading plugin extensions Running

[Go back to the top page](#)
(you can start using the installed plugins right away)

☐ Restart Jenkins when installation is complete and no jobs are running

REST API Jenkins 2.303.1

9. Installing the build-stats Plugin

Activities Google Chrome Oct 6 21:02 en

Configure System [Jen... x Nader-Tarek/Booster_Ci x New File x off-topic x Slack | django-app-proje... x Slack | Manage Apps | D... x Jenkins CI | Slack App D... x +

app.slack.com/client/T02HTDQ5457/C02HTDU75NV

imp_github_f... Online Precense DevOps SRE/DevOps Backend Data Engineer... Codeforces - C... C++ References MIT MISC Important Jav... Previous ECPC's edu.io Reading list

Search Demo-Slack-Workspace

Demo-Slack-Work... # django-app-project

+ Add a bookmark

Browse Slack Channels

- # django-app-project
- # general
- # random
- + Add channels

Direct messages

- Nader Tarek you
- + Add teammates

This is the very beginning of the #django-app-project channel

This channel is for working on a project. Hold meetings, share docs, and make decisions together with your team. [Edit description](#)

Today

Nader Tarek 1:43 PM joined #django-app-project.

Nader Tarek 5:02 PM added an integration to this channel: [jenkins](#)

Nader Tarek 5:13 PM hello!??

Nader Tarek 5:19 PM added an integration to this channel: [jenkins](#)

Nader Tarek 8:38 PM added an integration to this channel: [jenkins](#)

Nader Tarek 8:56 PM added an integration to this channel: [jenkins](#)

Jenkins 9:02 PM Slack/Jenkins plugin: you're all set on <http://localhost:8080/>

Send a message to #django-app-project

Stack needs your permission to enable notifications. [Enable notifications](#)

10. Successfully Integrated Slack

Google Chrome Oct 6 21:02

Configure System [Jenkins] x Nader-Tarek/Booster_CI x New File x off-topic x Slack | django-app-proj x Slack | Manage Apps | Jenkins CI | Slack App D x

localhost:3080/configure

imp_github_f... Online Preense DevOps SRE/DevOps Backend Data Engineer... Codeforces-C... C++ References MIT MISC Important Jav... Previous ECPC's edu.io Reading list

Dashboard configuration

Content Token Reference

E-mail Notification

SMTP server

Default user e-mail suffix

☐ Test configuration by sending test e-mail

Slack

Workspace

demoslackwork-b4p4806

Credential

slack-creds Add

Default channel / member id

django-app-project

☐ Custom slack app bot user

Success

Save Apply

Advanced... Test Connection

REST API Jenkins 2.303.1

11. Configuring the slack credentials (this photo should be swapped with the last one :D)

Google Chrome Oct 6 21:18

multi-branch-pipe Scan Nader-Tarek/Booster_CI x Slack | django-app-proj x off-topic x

localhost:3080/job/multi-branch-pipe/indexing/console

imp_github_f... Online Preense DevOps SRE/DevOps Backend Data Engineer... Codeforces-C... C++ References MIT MISC Important Jav... Previous ECPC's edu.io Reading list

Jenkins

Dashboard multi-branch-pipe Scan Multibranch Pipeline

Up Status Configure Scan Multibranch Pipeline Now Scan Multibranch Pipeline Log View as plain text Multibranch Pipeline Events Delete Multibranch Pipeline People Build History Project Relationship Check File Fingerprint Rename Pipeline Syntax Credentials New View

Build Queue (1)

multi-branch-pipe » master

Scan Multibranch Pipeline Log

Started

[Wed Oct 06 19:18:29 UTC 2021] Starting branch indexing...

```
> git --version # timeout=10
> git --version # 'git version 2.30.2'
> git ls-remote --synref -- https://github.com/Nader-Tarek/Booster_CI_CD_Project.git # timeout=10
Creating git repository in /var/jenkins_home/caches/git-4099a5c433020673c39391edaf03303
> git init /var/jenkins_home/caches/git-4099a5c433020673c39391edaf03303 # timeout=10
Setting origin to https://github.com/Nader-Tarek/Booster_CI_CD_Project.git
> git config remote.origin.url https://github.com/Nader-Tarek/Booster_CI_CD_Project.git # timeout=10
Fetching & pruning origin...
Listing remote references...
> git config --get remote.origin.url # timeout=10
> git --version # timeout=10
> git --version # 'git version 2.30.2'
> git ls-remote -h -- https://github.com/Nader-Tarek/Booster_CI_CD_Project.git # timeout=10
Fetching upstream changes from origin
> git config --get remote.origin.url # timeout=10
> git fetch --tags --force --progress --prune -- origin +refs/heads/*:refs/remotes/origin/* # timeout=10
Checking branches...
Checking branch master
'Jenkinsfile' found
Met criteria
Scheduled build for branch: master
Checking branch dependabot/pip/django-3.1.13
'Jenkinsfile' not found
Does not meet criteria
Processed 2 branches
[Wed Oct 06 19:18:38 UTC 2021] Finished branch indexing. Indexing took 9.4 sec
Finished: SUCCESS
```

Progress: 100%

12. Successfully Created the Multibranch Pipeline

discord.com is sharing your screen. Stop sharing Hide

Activities Google Chrome Oct 6 21:39

master [myFirstMulti] Jenkins Global Build Stats [Jenkins] Nader-Tarek/Booster_CI off-topic nadertarek's Profile | Jenkins

localhost:3080/plugin/global-build-stats/

imp_github_f... Online Precense DevOps SRE/DevOps Backend Data Engineer... Codeforces - C... C++ References MIT MISC Important Jav... Previous ECPC's edu.io Reading list

Jenkins search Nader log out

Dashboard

- Back to Dashboard
- Create new chart
- Manage retention strategies
- Data Initialization

Global Build Stats

Statistics
No chart configured for the moment... [Create a new chart configuration](#)

Build Results retention strategies

- ☐ Automatically discard results older than 365 days
- ☐ Do not keep build results when they are discarded
- ☐ Keep existing job results only

Update retention strategies

Data Initialization

Click button below to initialize build statistics
Job results read will be merged with already recorded job results.

Initialize stats

REST API Jenkins 2.303.1

13. Configuring the build stats plugin

Activities Google Chrome Oct 6 21:40

master [myFirstMulti] Jenkins Global Build Stats [Jenkins] Nader-Tarek/Booster_CI off-topic nadertarek's Profile | Jenkins

localhost:3080/plugin/global-build-stats/#

imp_github_f... Online Precense DevOps SRE/DevOps Backend Data Engineer... Codeforces - C... C++ References MIT MISC Important Jav... Previous ECPC's edu.io Reading list

Jenkins search Nader log out

Dashboard

- Back to Dashboard
- Create new chart
- Manage retention strategies
- Data Initialization

Global Build Stats

Statistics

Monitoring Builds

Avg build time
Total build time
1) Not build
2) Failures
3) Aborted
4) Unstables
5) Success

Build Results retention strategies

- ☐ Automatically discard results older than 365 days
- ☐ Do not keep build results when they are discarded
- ☐ Keep existing job results only

Update retention strategies

Data Initialization

14. Here is the plugin monitoring the builds

Oct 6 21:41

master [myFirstMulti] | Nader-Tarek/Booster_CI | off-topic | nadertarek's Profile |

localhost:3080/job/myFirstMulti/job/master/

Imp_github_f... Online Precense DevOps SRE/DevOps Backend Data Engineer... Codeforces - C... C++ References MIT MISC Important Jav... Previous ECPC's edu.io Reading list

Jenkins

search

Nader log out

Dashboard > myFirstMulti > master

Up

Status

Changes

Build Now

View Configuration

Full Stage View

Pipeline Syntax

Build History trend

Find

Oct 6, 2021, 7:29 PM

Atom feed for all Atom feed for failures

Pipeline master

Full project name: myFirstMulti/master

Recent Changes

Stage View

Declarative: Checkout SCM	preparation	build image	push image	deploy
1s	1s	53s	10min 44s	8s

Average stage times: (Average full run time: ~11min 54s)

Oct 06 21:29 No Changes

Permalinks

Last build (#1), 11 min ago

REST API Jenkins 2.303.1

15. The build finished successfully

Oct 6 21:43

master [myFirstMulti] | Dashboard [Jenkins] | Nader-Tarek/Booster_CI | off-topic | Slack | django-app-project |

app.slack.com/client/T02H7DQ5457/C02H7DU75NV

Search Demo-Slack-Workspace

Demo-Slack-Work...

Browse Slack

Channels

django-app-project

general

random

Add channels

Direct messages

Nader Tarek you

Add teammates

django-app-project

+ Add a bookmark

This is the very beginning of the #django-app-project channel
This channel is for working on a project. Hold meetings, share docs, and make decisions together with your team. [Edit description](#)

Today

Nader Tarek 1:43 PM
joined #django-app-project.

Nader Tarek 3:02 PM
added an integration to this channel: [jenkins](#)

Nader Tarek 3:15 PM
hello!??

Nader Tarek 3:19 PM
added an integration to this channel: [jenkins](#)

Nader Tarek 8:38 PM
added an integration to this channel: [jenkins](#)

Nader Tarek 8:56 PM
added an integration to this channel: [jenkins](#)

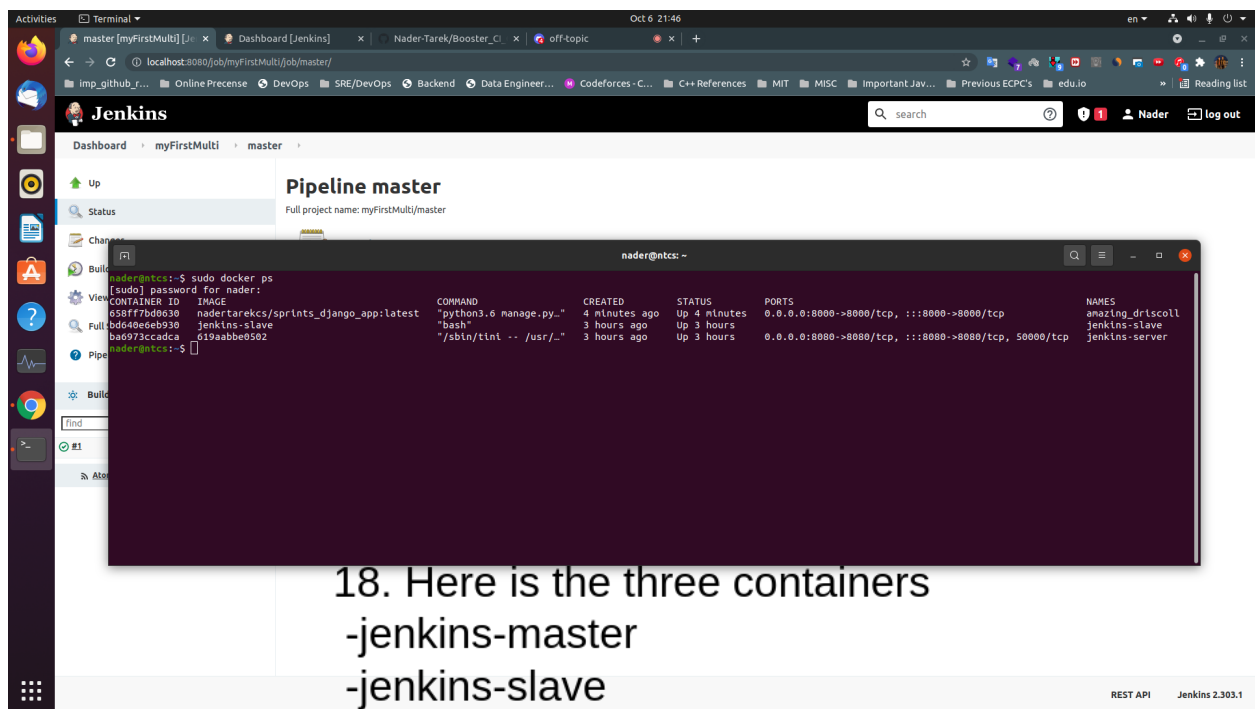
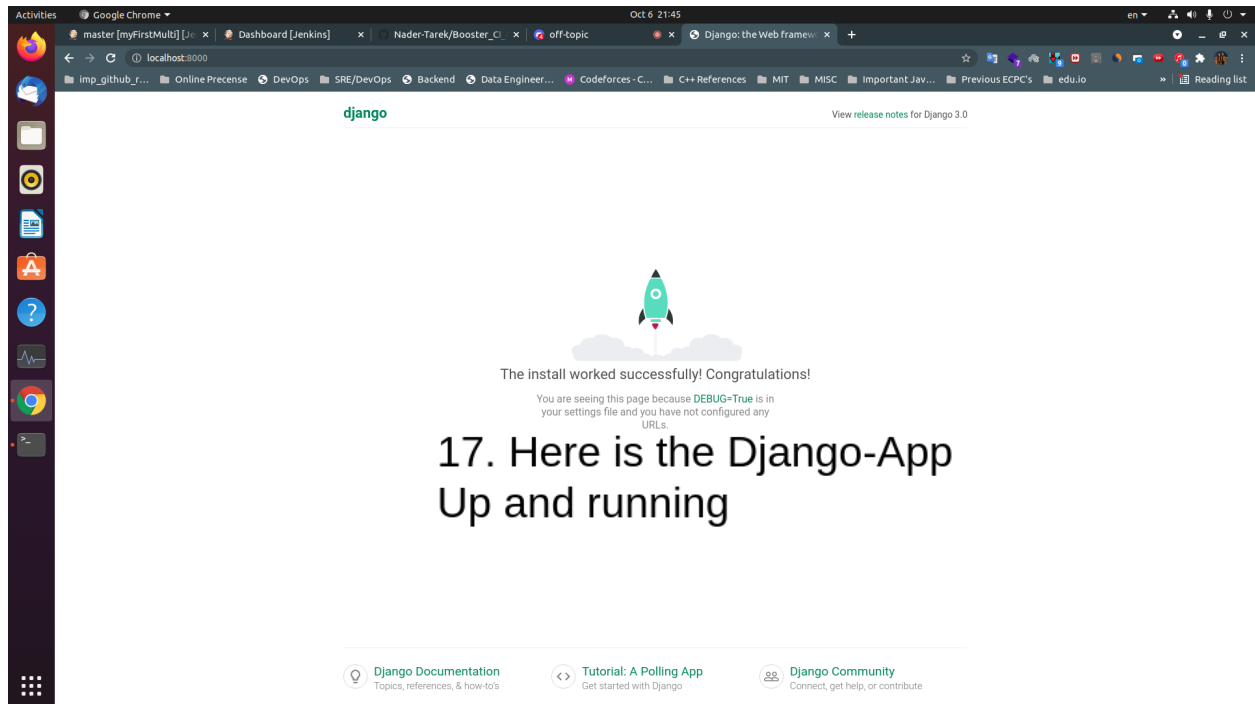
Jenkins 9:02 PM
Slack/Jenkins plugin: you're all set on <http://localhost:8080/>

Jenkins 9:41 PM
SUCCESSFUL

Send a message to #django-app-project

Slack needs your permission to enable notifications. [Enable notifications](#)

16. Slack notification that the build ended up succeeding



18. Here is the three containers

- jenkins-master
- jenkins-slave
- Django-App