

DISTRIBUTED SYSTEM README FILE

PHASE 2

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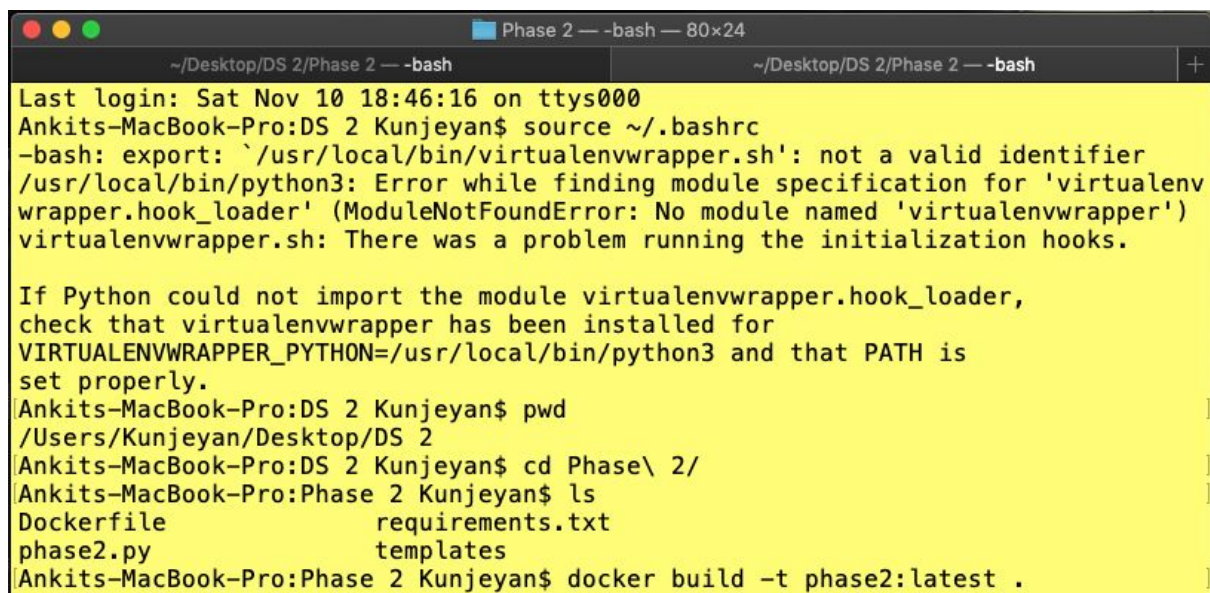
Phase 2:

The folder for phase 2 contain following files:-

1. Dockerfile
2. phase2.py
3. Requirements.txt
4. Templates folder-> P2.html

The steps are as follows:-

1. Go to the directory and folder in which the files of applications are stored.
2. Open the command line or terminal and build the image of Dockerfile using the command “docker build -t phase2:latest.”

A terminal window titled "Phase 2 — -bash — 80x24" showing the execution of commands to build a Docker image. The user is in the directory ~/Desktop/DS 2/Phase 2. The terminal output shows the execution of 'source ~/.bashrc', an error message about 'virtualenvwrapper.sh' not being a valid identifier, and a message about 'virtualenvwrapper.hook_loader' not being found. The user then runs 'pwd' showing the current directory, 'ls' showing the files in the directory, and finally 'docker build -t phase2:latest .' which completes successfully.

```
~/Desktop/DS 2/Phase 2 — -bash
Last login: Sat Nov 10 18:46:16 on ttys000
Ankits-MacBook-Pro:DS 2 Kunjeyan$ source ~/.bashrc
-bash: export: `/usr/local/bin/virtualenvwrapper.sh': not a valid identifier
/usr/local/bin/python3: Error while finding module specification for 'virtualenv
wrapper.hook_loader' (ModuleNotFoundError: No module named 'virtualenvwrapper')
virtualenvwrapper.sh: There was a problem running the initialization hooks.

If Python could not import the module virtualenvwrapper.hook_loader,
check that virtualenvwrapper has been installed for
VIRTUALENVWRAPPER_PYTHON=/usr/local/bin/python3 and that PATH is
set properly.
Ankits-MacBook-Pro:DS 2 Kunjeyan$ pwd
/Users/Kunjeyan/Desktop/DS 2
Ankits-MacBook-Pro:DS 2 Kunjeyan$ cd Phase\ 2/
Ankits-MacBook-Pro:Phase 2 Kunjeyan$ ls
Dockerfile          requirements.txt
phase2.py            templates
Ankits-MacBook-Pro:Phase 2 Kunjeyan$ docker build -t phase2:latest .
```

3. After the build is successful. Try running it using the command “docker run -t -d -p 5000:5000 phase2” on 5000 port.

```
Phase 2 — -bash — 80x24
~/Desktop/DS 2/Phase 2 — -bash
Step 5/11 : COPY . /home/phase2
----> Using cache
----> 2da80dcceba5
Step 6/11 : WORKDIR /home/phase2
----> Using cache
----> b8ef4ade282d
Step 7/11 : RUN ls
----> Using cache
----> eca7e3aebdb2
Step 8/11 : RUN chmod +x phase2.py
----> Using cache
----> a38274ac1a05
Step 9/11 : RUN pip install -r requirements.txt
----> Using cache
----> 539d61126e3d
Step 10/11 : ENTRYPOINT ["python"]
----> Using cache
----> c472585745a8
Step 11/11 : CMD ["phase2.py"]
----> Using cache
----> ce7765f9683b
Successfully built ce7765f9683b
Successfully tagged phase2:latest
Ankits-MacBook-Pro:Phase 2 Kunjeyan$ docker run -t -d -p 5000:5000 phase2
```

4. Go to a browser and type “https://localhost:5000”. The application will run prompting you to enter the values.
5. Add/Enter the Topic name and the publisher name. Similarly keep adding the subscriber name and the corresponding topic name as much as you want.
6. Enter/Append the data to a topic in text bar and keep on publishing the data.
7. Whenever the user is done with add/appending PUB/SUB to the topics, hit NOTIFY button to print the data as an alert.
8. You will see all the data so entered in respective topics by the publishers.
9. The Random function generates the same pattern as stated in the PDF of the project. It randomly matches and print the data so found in topics published by the publishers.

PUBSUB

localhost:5000

AppsUBMiscMLGoogleGoogleMyUB - Your pers...Gradiance Online ...CSE 305Autolab

Hello there!

Enter Publisher and Topic Name

Enter Topic Name

Enter Publisher Name

Submit

Enter Subscriber and Topic Name

Enter Subscriber Name

Enter Topic Name

Submit

PUBSUB

localhost:5000/?

AppsUBMiscMLGoogleGoogle

localhost:5000 says

tolab HomeSign in to your Mi...Top Hat

Enter Publisher Name to publish Data To

Publish

Click Button to notify

Notify

Press the button below to randomly generate publishers,topics and subscribers to Test

The number of publishers and Subscribers can be entered

Enter Number of Subscribers

3

Enter Number of Topics

2

Enter Number of Publishers

localhost:5000 says

Publisher Topic Matching is: {"pub3": ["topic1"], "pub2": ["topic1"], "pub1": ["topic1"]}

Subscriber Topic Matching is: {"topic1": ["sub3", "sub3"], "topic2": ["sub2"]}

pub3 is publishing the message : 91218400

pub2 is publishing the message : 83680875

pub1 is publishing the message : 68286991

sub3 received the message:91218400

sub3 received the message:91218400

sub3 received the message:83680875

OK