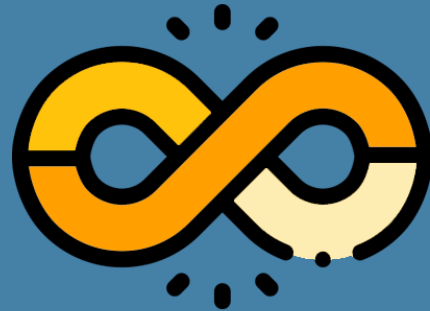


DevOps -
Infrastructure &
Configuration
Management



DevOps

Infrastructure & Configuration Management

April 2022

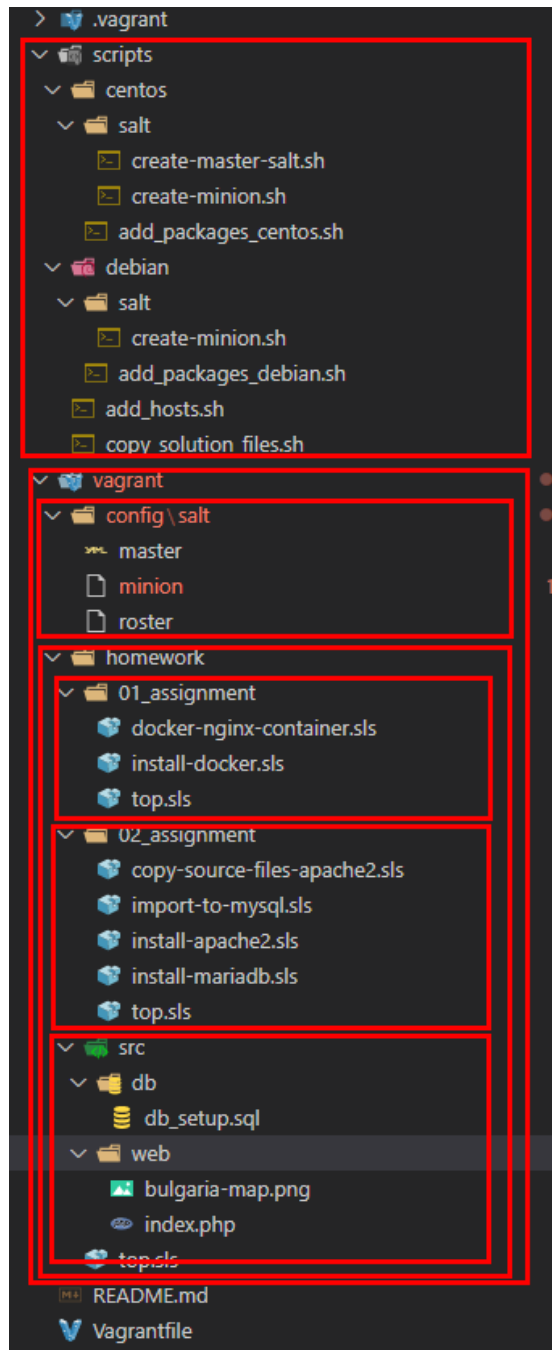
Configuration Management with Salt
Home Work

Stefan Veselino

Assignment

You must execute either of the following set of tasks or both:

1. With the help of **Salt** and **Vagrant** create **Docker** host and run a **nginx** container in it
2. With the help of **Salt** and **Vagrant** create a two-host setup (*Salt could be installed on one of the machines*):
 - One of the hosts should play the role of **WEB** server with web solution of your choice and **PHP** installed and the other one – **DB** server with **MySQL/MariaDB** installed
 - On the **WEB** host deploy the content of the **web** folder in **M3-Homework-Challenge-Salt (files).zip** archive and on the other – the content of the **db** folder from the same archive



Solutions Structure

- scripts/ - contains scripts for VM's provisioning by Vagrant
- vagrant/config – contains configuration files for salt (master and minion)
- vagrant/homework – homework solution files for assignments 1 and 2

Solution Preparation

- Execute environment provisioning – go to the solution root directory and run - vagrant up
- Connect to salt host - vagrant ssh server

Assignment 1 Solution

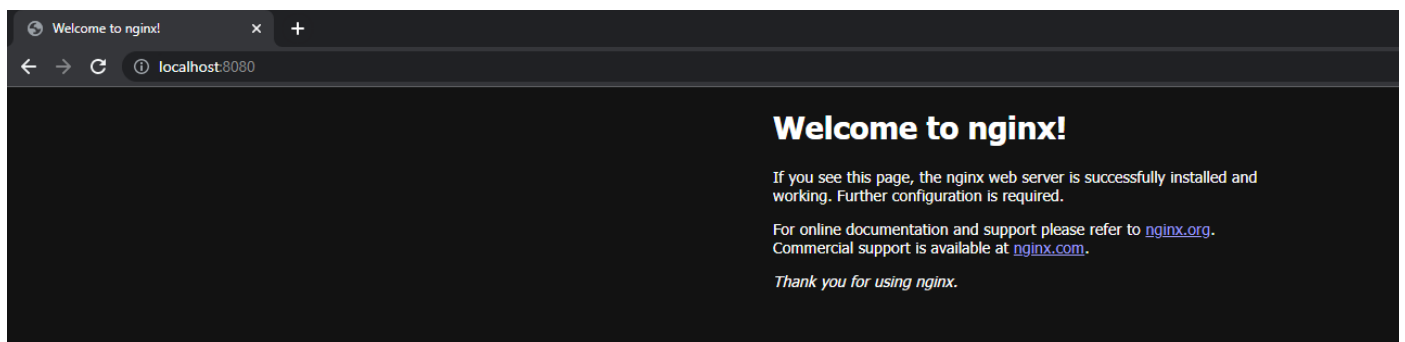
- Execute - `sudo salt "docker*" state.apply`

```
[vagrant@server ~]$ sudo salt "docker*" state.apply
docker.do2.homework:
Minion did not return. [No response]
The minions may not have all finished running and any remaining minions will return upon completion. To look up the return data for this job later, run the following command:
salt-run jobs.lookup_jid 20220424092504129851
ERROR: Minions returned with non-zero exit code
[vagrant@server ~]$ sudo salt-run jobs.lookup_jid 20220424092504129851
```

```
Summary for docker.do2.homework
-----
Succeeded: 5 (changed=5)
Failed:    0
-----
Total states run:      5
Total run time: 172.045 s
```

NOTE: when executed with "docker*" connection with minions is broken, and engine is prompting with `salt-run jobs.lookup_jid 20220424092504129851`, but work is done

- Open web browser and visit <http://localhost:8080>



Assignment 2 Solution

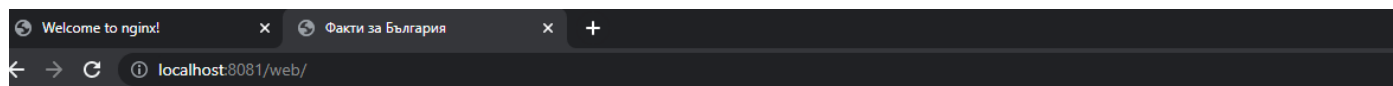
- Execute - `sudo salt "db*" state.apply`

```
Summary for db.do2.homework
-----
Succeeded: 4 (changed=4)
Failed:    0
-----
Total states run:      4
Total run time: 59.490 s
```

- Execute - `sudo salt "web*" state.apply`

```
Summary for web.do2.homework
-----
Succeeded: 3 (changed=2)
Failed:    0
-----
Total states run:      3
Total run time: 28.217 s
```

- Open a web browser and visit <http://localhost:8081/web>



Факти за България



Площ 110 993.6 кв.км.
Население 7 101 859
Столица София

Големи градове

София	1236047
Пловдив	343424
Варна	335177
Бургас	202766
Русе	144936
Стара Загора	136781
Плевен	98467
Сливен	87322
Добрич	85402
Шумен	76967