***Cheat-Sheet***

*Microservices 7th - 8th Week*

*Docker, Data Updating Microservice*

Cloud Computing (Introduction)

Teacher: Mr. Zheng Li

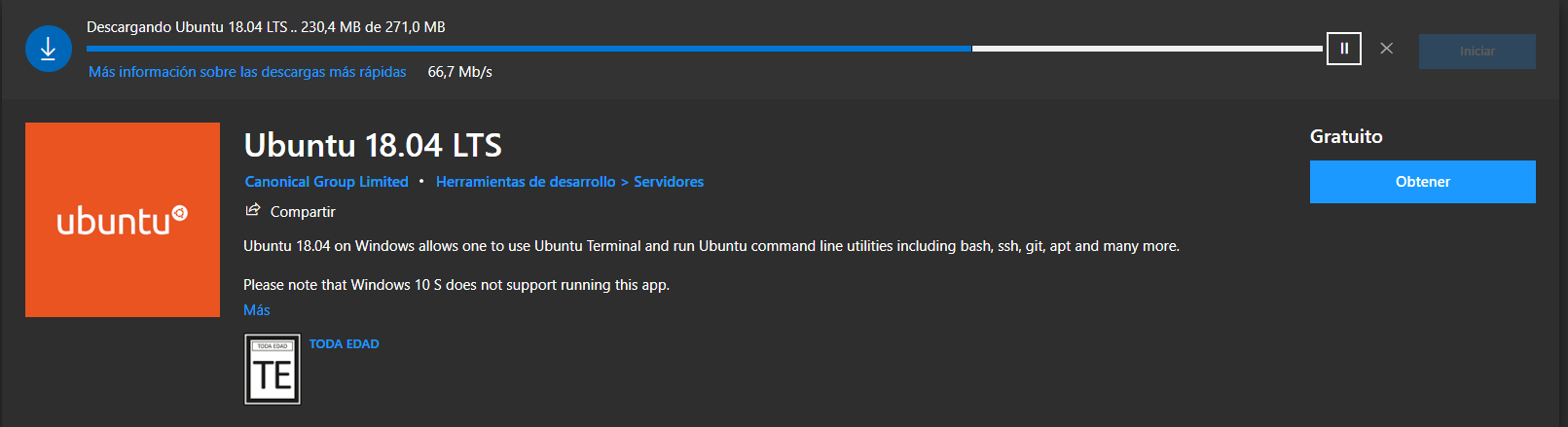
Student: Juan Albornoz

# 7th week´s practice:

# 8th week´s practice:

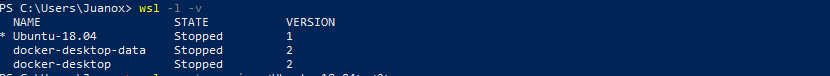
# Installing tools and platform´s information.

* 1. Working over Windows 10 Home Single on x64 architecture; 8,00Gb (7,86Gb free). Build 19041 or higher needed for next points.
  2. Since Docker was originally written and built for Linux, running on windows natively depends on some virtualization like WSL (Windows Subsystem Linux). Also (WSL) 2 introduces a full Linux kernel, allowing this to run natively without emulation.
  3. **Activating (WSL) 2 in windows:**
     1. Activating WSL by running:
     2. Ubuntu 18.04 LTS for the subsystem downloaded and installed from Microsoft Store:

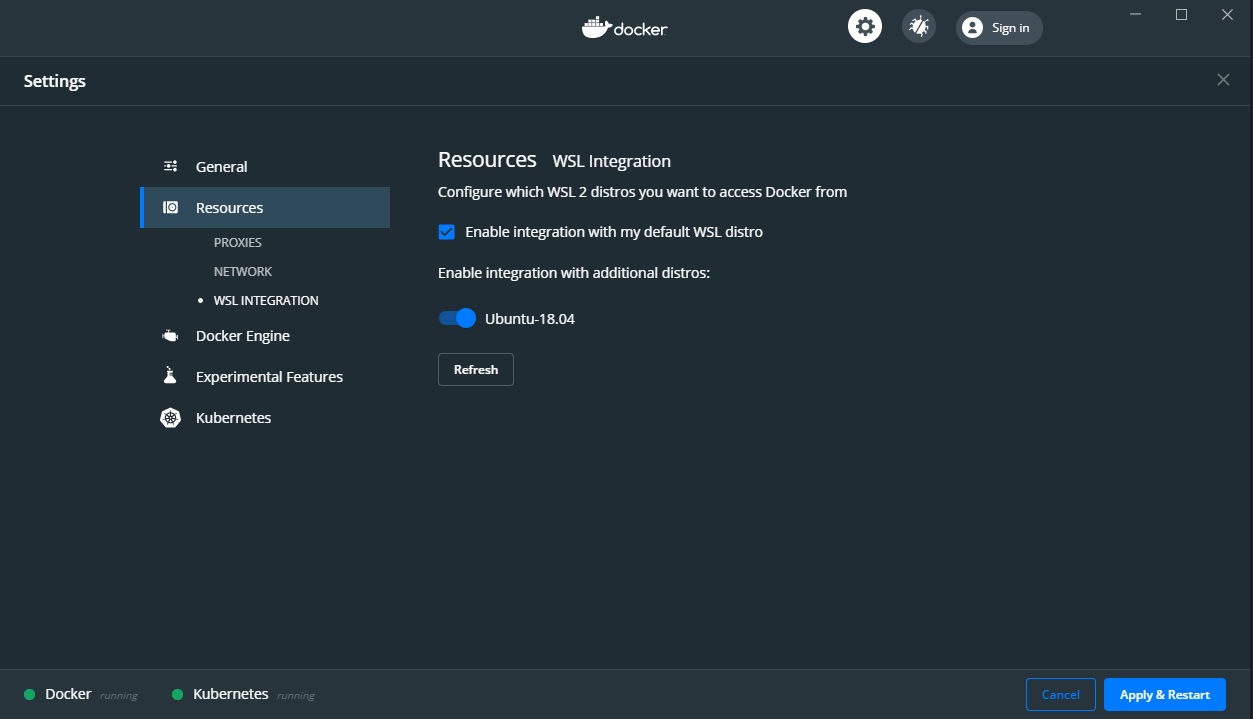


* + 1. Also installed Linux kernel package required for updating to (WSL) 2:

[**https://wslstorestorage.blob.core.windows.net/wslblob/wsl\_update\_x64.msi**](https://wslstorestorage.blob.core.windows.net/wslblob/wsl_update_x64.msi)

* + 1. Check command **wsl -l -v**
    2. Change the WSL version used by the distribution with the next command and then showing again:

**wsl --set-version <Ubuntu-18.04> <2>**

* 1.  Installed Docker Desktop 3.0.0 and Engine 20.10.0:
     1. Enabling WSL integration in Docker Desktop configuration’s apart:

# The database’s docker image and first scripts.

* 1. The Dockerfile

1. #####IMAGE
2. FROM ubuntu:18.04
3. COPY *.* */mnt/c/Users/Juanox/cloudProject/dockerbuild*
4. WORKDIR */mnt/c/Users/Juanox/cloudProject/dockerbuild*
5. RUN *apt-get* *update* *-y*
6. RUN *apt-get* *install* *--assume-yes* *apt-utils*
7. #####SCRIPT PERMISSIONS
8. RUN *chmod* *a+x* *./install\_mysql.sh* *./load\_data.sh* *./select\_data.sh*
9. RUN *./install\_mysql.sh*
10. RUN *./load\_data.sh*
11. RUN *rm* *-f* *./install\_mysql.sh* *./load\_data.sh* *./AK\_Features\_20171201-fixdate.txt*
12. #####CONTAINER
13. CMD *./select\_data.sh*

2.2. load\_data.sh

rootpsw='1q2w3e4r'

usertest='mydb'

passtest='#1A2b%3C4d5E!'

tabletest='mytab'

mysql -uroot -p$rootpsw <<MYSQL\_SCRIPT

CREATE DATABASE $usertest;

CREATE USER '$usertest'@'localhost' IDENTIFIED BY '$passtest';

GRANT ALL PRIVILEGES ON $usertest.\* TO '$usertest'@'localhost';

FLUSH PRIVILEGES;

MYSQL\_SCRIPT

echo "MySQL user created."

echo "Username:   $usertest"

echo "Password:   $passtest"

mysql -u$usertest -p$passtest -D$usertest <<MYSQL\_SCRIPT

CREATE TABLE $tabletest (STUDENT\_ID VARCHAR(10), STUDENT\_NAME VARCHAR(50), AGE INT(10), DATE\_CREATED DATE, PHONE VARCHAR(15), ADRESS VARCHAR(50));

LOAD DATA LOCAL INFILE '/mnt/c/Users/Juanox/cloudProject/dockerbuild/AK\_Features\_20171201-fixdate.txt' INTO TABLE $tabletest CHARACTER SET utf8 FIELDS TERMINATED BY '|';

MYSQL\_SCRIPT