1. Deploy EC instance on chameleon
2. SSH into instance

$ ssh -i /c/users/rwhite/.ssh/t6-rw1 cc@129.114.26.60

Set-up via VirtualBox (UB20.04)

Host 1:

Set up shared folder between host/guest of virtual machine:

sudo apt install virtualbox-guest-utils

sudo apt install virtualbox-guest-additions-iso -y

Set-up via SSH:

Host 2 (UB20.04 headless)

Install net-tools:  
sudo apt install net-tools -y

sudo apt install ncat -y

Install java:

sudo apt install default-jre -y

install python/pip:

sudo apt install python -y

sudo apt install pip -y

Install kafka:  
  
wget <https://dlcdn.apache.org/kafka/2.8.0/kafka_2.13-2.8.0.tgz>

**tar -xvf kafka\_2.13-2.8.0.tgz**

**cd kafka\_2.13-2.8.0**

export KAFKA\_OPTS="-Djava.net.preferIPv4Stack=True"

**run zookeeper in background:**

bin/zookeeper-server-start.sh config/zookeeper.properties &

view running zookeeper brokers

bin/zookeeper-shell.sh localhost:2181 ls /brokers/ids

kafka python client:

pip install kafka

pip install kafka-python

Host 3 (UB20.04 headless):

setting up couchdb:

sudo apt update && sudo apt install -y curl apt-transport-https gnupg

curl https://couchdb.apache.org/repo/keys.asc | gpg --dearmor | sudo tee /usr/share/keyrings/couchdb-archive-keyring.gpg >/dev/null 2>&1

source /etc/os-release

echo "deb [signed-by=/usr/share/keyrings/couchdb-archive-keyring.gpg] https://apache.jfrog.io/artifactory/couchdb-deb/ *${*VERSION\_CODENAME*}* main" | sudo tee etc/apt/sources.list.d/couchdb.list >/dev/null

Sudo apt update

sudo apt install -y couchdb

follow on-screen prompt.

Test Couchdb:

curl http://127.0.0.1:5984/

expected resp:

{"couchdb":"Welcome","version":"3.1.1","git\_sha":"ce596c65d","uuid":"46d26c41cd949d16e4c3f10ca5b85fb8","features":["access-ready","partitioned","pluggable-storage-engines","reshard","scheduler"],"vendor":{"name":"The Apache Software Foundation"}}

Pip install couchdb-python

Transfer over python script to run   
$ scp -i /c/users/rwhite/.ssh/t6-rw1 /c/vanderbilt/CS5287/cs5287-assignment-1/src/h3/Consumer.py cc@129.114.26.60:Consumer.py