Homework link on Data Engineering GitHub under 2024 folder

<https://github.com/DataTalksClub/data-engineering-zoomcamp/blob/main/cohorts/2024/01-docker-terraform/homework.md>

#1.

Commands to run

docker –help

docker build –help

docker run –help

Which tag has the following text? - Automatically remove the container when it exits

Ans : --rm

#2.

$ winpty docker run -it --entrypoint=bash python:3.9

Once inside the Python3.9 env, run the following command

root@4a3eec3b2ade:/# pip list

Package Version

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pip 23.0.1

setuptools 58.1.0

wheel 0.42.0

Ans : 0.42.0

#3

select count(\*) from public.green\_taxi\_trips

where cast(tpep\_pickup\_datetime as date) = '2019-09-18'

and cast(tpep\_dropoff\_datetime as date) = '2019-09-18'

Ans : 15612

#4: Largest trip for each day

select cast(tpep\_pickup\_datetime as date) as trip\_day,

sum(trip\_distance) dist

from public.green\_taxi\_trips

group by trip\_day

order by dist desc

Ans : 2019-09-26

#5

select "Borough" as borough, count(\*) as num\_trips, sum(total\_amount) as amt

from public.green\_taxi\_trips

inner join public.zones

on "PULocationID" = "LocationID"

and "Borough" != 'Unknown'

where cast(tpep\_pickup\_datetime as date) = '2019-09-18'

group by 1

having sum(total\_amount) > 50000

order by 3 desc

Ans: Brooklyn, Manhattan, Queens

#6 Largest tip

select drp."Zone" as drp\_zone,

tip\_amount as tip

from public.green\_taxi\_trips

inner join public.zones pick

on "PULocationID" = pick."LocationID"

and pick."Zone" = 'Astoria'

inner join public.zones drp

on "DOLocationID" = drp."LocationID"

group by 1,2

order by 2 desc

Ans : "JFK Airport"

#7 “terraform apply” output

Plan: 2 to add, 0 to change, 0 to destroy.

Do you want to perform these actions?

Terraform will perform the actions described above.

Only 'yes' will be accepted to approve.

Enter a value: yes

google\_bigquery\_dataset.demo\_dataset: Creating...

google\_storage\_bucket.demo\_bucket: Creating...

google\_bigquery\_dataset.demo\_dataset: Creation complete after 1s [id=projects/terraform-demo-411218/datasets/demo\_dataset]

google\_storage\_bucket.demo\_bucket: Creation complete after 3s [id=terraform-demo-411218-terra-bucket]

Apply complete! Resources: 2 added, 0 changed, 0 destroyed.