--1. How many passengers did Allegiant provide service to in 2019? Where does

--Allegiant rank among the top 15 airlines? To answer this question, rank order

--the total number of passengers served by unique airlines (AIRLINE\_ID).

--Be sure to only count passenger on scheduled flights (CLASS = F)

select

airline\_id,

unique\_carrier\_name as airline,

sum(passengers) as total\_passengers

from domestic\_market

where class = 'F'

group by

airline\_id, unique\_carrier\_name

order by total\_passengers desc

limit 15;

--allegiatn provided flight service to 14933055 passengers in 2019

--allegiant is the 11th largest domestic airline in the US in 2019, ranked by total passenegrs served

--2. What are the top 30 destinations airports for Allegiant in terms of total

--passengers served (scheduled flights only) in 2019? Compare your results to

--Allegiant’s Route Map. How many of these cities are considered destination cities

--(shown on the map as large orange circles)? How many are origination cities

--(shown on the map as small blue circles)?

select

dest\_airport\_id,

dest as airport\_code,

dest\_city\_name,

sum(passengers) as total\_passengers

from domestic\_market

where airline\_id = '20368' and class = 'F'

group by

dest\_airport\_id,

dest,

dest\_city\_name

order by total\_passengers desc

limit 30;

--12 of the top 30 destination airports are considered destination cities

--18 of the top 30 destination airports are considered origination cities

--3. Which airports represent potential new growth opportunities as potential

--destination cities? To address this question, determine the five largest

--(ranked by total number of passengers) secondary airports\* located within

--markets (DEST\_MARKET\_ID) not currently served by Allegiant in 2019 with scheduled

--passenger flights (CLASS = F). Among these five airports, which do you think

--Allegiant should pursue as destination cities? Why? Compare your answer to

--Allegiant's newly announced routes/airport destinations for 2020.

--step 1, total airport passengers

create or replace view airport\_passengers as

select

dest\_city\_market\_id,

dest\_city\_name,

dest\_airport\_id,

dest,

sum(passengers) as passengers

from domestic\_market

where class = 'F'

group by

dest\_city\_market\_id,

dest\_city\_name,

dest\_airport\_id,

dest

order by passengers desc;

--step 2, total passengers by market

create or replace view market\_size as

select

dest\_city\_market\_id,

dest\_city\_name,

dest\_airport\_id,

dest,

passengers,

sum(passengers) over(partition by dest\_city\_market\_id) as market\_passengers

from airport\_passengers

order by market\_passengers desc, passengers desc;

--step 3, unique allegiant destination markets

create or replace view allegiant\_markets as

select

distinct dest\_city\_market\_id,

dest\_airport\_id,

dest,

dest\_city\_name

from domestic\_market

where airline\_id = '20368' and class = 'F'

order by dest\_city\_name;

--4. airport rank within market

create or replace view airport\_rank as

select

ms.dest\_city\_market\_id as market\_id,

ms.dest\_city\_name as city\_name,

market\_passengers,

ms.dest\_airport\_id as airport\_id,

ms.dest as airport\_code,

passengers,

rank() over (partition by ms.dest\_city\_market\_id order by passengers desc) as airport\_rank,

case

when am.dest is null then 0

else 1 end as allegiant\_airport

from market\_size as ms

left join allegiant\_markets as am

on ms.dest\_city\_market\_id = am.dest\_city\_market\_id

and ms.dest = am.dest

order by market\_passengers desc, passengers desc;

--5. find non allegiant market

create or replace view non\_allegiant\_markets as

select

market\_id,

city\_name,

market\_passengers,

airport\_id,

airport\_code,

passengers,

airport\_rank,

allegiant\_airport,

max(allegiant\_airport) over(partition by market\_id) as allegiant\_market

from airport\_rank

order by market\_passengers desc, passengers desc;

--secondary airports

select \*

from non\_allegiant\_markets

where allegiant\_market = 0 and airport\_rank = 2

limit 5;

--I think allegiant should pursue Chicago, Dallas, and Houston as destination cities. These --airports have the highest number of passengers out of the top 5 destinations that have secondary --airports where allegiant isn’t stationed. However, Dallas may not be a primary target given that --southwest is headquartered there.