1. What were the top 3 busiest Geo Regions (in terms of number of passengers) Flying in and out of SFO?

    a. **SELECT sfo.passenger,**
       sfo.geo_region
       FROM (
       SELECT
       sfo.passenger,
       sfo.geo_region,
       ROW_NUMBER() OVER(PARTITION BY sfo.geo_region ORDER BY sfo.passenger DESC) toprow
       FROM sfo_monthly_air_traffic_passengers_data sfo
) sfo
       WHERE sfo.toprow =3;

	sfo.passenger	sfo.geo_region
1	102325	Asia
2	21895	Australia / Oceania
3	60064	Canada
4	11284	Central America
5	61371	Europe
6	33565	Mexico
7	14795	Middle East
8	3485	South America
9	625885	US

Results (9)

2. What were the top 3 busiest Geo Regions (in terms of number of flights) Flying in and out of SFO?

    a. **SELECT COUNT(operating_airline) AS cnt,**
       geo_region
       FROM sfo_monthly_air_traffic_passengers_data
       GROUP BY geo_region
       ORDER BY cnt DESC

	cnt	geo_region
1	7840	US
2	4722	Asia
3	3568	Europe
4	2075	Canada
5	1682	Mexico
6	1214	Australia / Oceania
7	467	Central America
8	461	Middle East
9	91	South America

3. What were the top 3 years in terms of the largest number of passengers domestic and international flying in and out of SFO?

    a. **SELECT sum(passenger) as cnt,**

       SUBSTR (activity_period, 1, 4) as Year

       FROM sfo_monthly_air_traffic_passengers_data

       GROUP BY SUBSTR(activity_period, 1, 4)

	cnt	year
1	695	2005
2	1369	2006
3	1409	2007
4	1433	2008
5	1393	2009
6	1383	2010
7	1390	2011
8	1378	2012
9	1358	2013
10	1368	2014
11	1460	2015
12	1595	2016
13	1728	2017
14	1856	2018
15	1870	2019
16	435	2020

4. What were the top 3 years in terms of the largest number of flights domestic and international flying in and out of SFO?

    a. **SELECT COUNT(operating_airline) as cnt,**
       SUBSTR(activity_period, 1, 4) as Year
       FROM sfo_monthly_air_traffic_passengers_data
       GROUP BY SUBSTR(activity_period, 1, 4)

	cnt	year
1	695	2005
2	1369	2006
3	1409	2007
4	1433	2008
5	1393	2009
6	1383	2010
7	1390	2011
8	1378	2012
9	1358	2013
10	1368	2014
11	1460	2015
12	1595	2016
13	1728	2017
14	1856	2018
15	1870	2019
16	435	2020

5. Which year had the lowest number of passengers flying in and out of SFO?

    a. **SELECT COUNT(passenger) as cnt,**
       SUBSTR (activity_period, 1, 4) as Year
       FROM sfo_monthly_air_traffic_passengers_data
       GROUP BY SUBSTR(activity_period, 1, 4)

	cnt	year
1	695	2005
2	1369	2006
3	1409	2007
4	1433	2008
5	1393	2009
6	1383	2010
7	1390	2011
8	1378	2012
9	1358	2013
10	1368	2014
11	1460	2015
12	1595	2016
13	1728	2017
14	1856	2018
15	1870	2019
16	435	2020

6. Which operating_airline had the largest number of passengers flying with them in and out of SFO?

    a. SELECT SUM(passenger) as cnt,

       operating_airline as airline

       FROM sfo_monthly_air_traffic_passengers_data

       GROUP BY operating_airline

       ORDER BY cnt desc

	cnt	airline
1	150755669	United Airlines
2	105363917	United Airlines - Pre 07/01/2013
3	51639401	SkyWest Airlines
4	50262092	American Airlines

7. Which operating_airline had the largest number of passengers flying with them internationally in and out of SFO?

    a. SELECT SUM(passenger) as cnt,

       operating_airline as airline,

       geo_summary as summary

FROM sfo_monthly_air_traffic_passengers_data

WHERE geo_summary = 'International'

GROUP BY operating_airline, geo_summary

ORDER BY cnt desc

	cnt	airline	summary
1	26263571	United Airlines	International
2	24211156	United Airlines - Pre 07/01/2013	International
3	10388817	Air Canada	International
4	6949658	Lufthansa German Airlines	International

8. Which operating_airline had the largest number of passengers flying with them domestically in and out of SFO?

    a. **SELECT SUM(passenger) as cnt,**

       operating_airline as airline,

       geo_summary as summary

       FROM sfo_monthly_air_traffic_passengers_data

       WHERE geo_summary = 'Domestic'

       GROUP BY operating_airline, geo_summary

       ORDER BY cnt desc

	cnt (int)	airline	summary
1	124492098	United Airlines	Domestic
2	81152761	United Airlines - Pre 07/01/2013	Domestic
3	50262092	American Airlines	Domestic
4	48512733	SkyWest Airlines	Domestic
5	41792147	Delta Air Lines	Domestic

9. Let's analyze the impact of COVID-19 on the travel industry:

How did the number of flights in the first quarter of 2020 (Jan+Feb+March 2020) compared to the previous year first quarter (Jan+Feb+March 2019)?

    a. **SELECT count(operating_airline) as cnt,**

SUBSTR (activity_period, 1, 6) as year

FROM sfo_monthly_air_traffic_passengers_data

WHERE SUBSTR(activity_period, 1, 6) in ('202001', '202002', '202003','201901',

'201902', '201903')

GROUP BY SUBSTR(activity_period, 1, 6)

	cnt	year
1	148	201901
2	143	201902
3	150	201903
4	149	202001
5	146	202002
6	140	202003

441 in Q1 2019 vs 435 in Q1 2020 = 6 more in Q1 2019; -1.36%

10. Let's analyze the impact of COVID-19 on the travel industry:

How did the number of passengers in the first quarter of 2020 (Jan+Feb+March 2020) compared to the previous year first quarter (Jan+Feb+March 2019)?

a. SELECT SUM(passenger) as cnt,

SUBSTR (activity_period, 1, 6) as year

FROM sfo_monthly_air_traffic_passengers_data

WHERE SUBSTR(activity_period, 1, 6) in ('202001', '202002', '202003','201901',
'201902', '201903')

GROUP BY SUBSTR(activity_period, 1, 6)

	cnt	year
1	4156821	201901
2	3752763	201902
3	4599189	201903
4	4241751	202001
5	3742224	202002
6	1887581	202003

12,508,773 Q1 2019 vs 9,871,556 Q1 2020 = 2,637,217 more in Q1 2019; -21.08%