**--MODUL PA 1.3 TUGAS UTAMA**

--**KELOMPOK** 22

**--QUERY CLEANSING DATA KESEPAKATAN BERSAMA KELOMPOK 22--**

SELECT consecutive\_number, state\_name, number\_of\_vehicle\_forms\_submitted\_all,

number\_of\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_parked\_working\_vehicles,

number\_of\_forms\_submitted\_for\_persons\_not\_in\_motor\_vehicles,

number\_of\_persons\_in\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_persons\_not\_in\_motor\_vehicles\_in\_transport\_mvit,

city\_name,

CASE

when land\_use\_name in ('Not Reported','Unknown','Trafficway Not in State Inventory') then 'others'

else land\_use\_name END,

CASE

when functional\_system\_name in ('Not Reported','Unknown') then 'others'

else functional\_system\_name END,

CASE

when milepoint in (99999,99998,00000) then 0 --angka 0 menunjukkan 'others'

else milepoint

END,

CASE

when manner\_of\_collision\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else manner\_of\_collision\_name END,

CASE

when type\_of\_intersection\_name in ('Not Reported','Reported as Unknown') then 'others'

else type\_of\_intersection\_name

END,

CASE

when light\_condition\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else light\_condition\_name end,

case when atmospheric\_conditions\_1\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else atmospheric\_conditions\_1\_name END,

number\_of\_fatalities, number\_of\_drunk\_drivers,timestamp\_of\_crash,

CASE

WHEN state\_name IN ('Connecticut','Delaware','Georgia','Maine', 'Maryland', 'Massachusetts', 'Michigan', 'New Hampshire', 'New Jersey', 'New York', 'North Carolina', 'Ohio', 'Pennsylvania', 'Rhode Island', 'South Carolina', 'Vermont', 'Virginia', 'Washington DC', 'West Virginia','Florida', 'Indiana', 'Kentucky', 'Tennessee') THEN timestamp\_of\_crash AT TIME ZONE 'EST'

WHEN state\_name IN ('Alabama', 'Arkansas', 'Illinois', 'Iowa', 'Louisiana', 'Michigan','Upper Peninsula', 'Minnesota', 'Mississippi', 'Missouri', 'Nebraska', 'Oklahoma', 'Wisconsin','District of Columbia')THEN timestamp\_of\_crash AT TIME ZONE 'CST'

WHEN state\_name IN ('Arizona', 'Colorado', 'Montana', 'New Mexico', 'Utah', 'Wyoming','Kansas', 'Nebraska', 'North Dakota', 'South Dakota', 'Texas')THEN timestamp\_of\_crash AT TIME ZONE 'MST'

WHEN state\_name IN ('California', 'Nevada', 'Washington','Idaho', 'Oregon') THEN timestamp\_of\_crash AT TIME ZONE 'PST'

WHEN state\_name IN ('Alaska','Anchorage', 'Juneau', 'Nome') THEN timestamp\_of\_crash AT TIME ZONE 'AKST'

WHEN state\_name IN ('Aleutian islands', 'Hawaii') THEN timestamp\_of\_crash AT TIME ZONE 'HST'

END converted\_timestamp

FROM crash

**Jawaban Pertanyaan No 1**

**--Faktor Persimpangan Jalan**

**--QUERY 1**

select distinct type\_of\_intersection\_name ,

count (number\_of\_vehicle\_forms\_submitted\_all) number\_of\_vehicle\_forms\_submitted\_all

from (

select consecutive\_number, state\_name, number\_of\_vehicle\_forms\_submitted\_all,

number\_of\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_parked\_working\_vehicles,

number\_of\_forms\_submitted\_for\_persons\_not\_in\_motor\_vehicles,

number\_of\_persons\_in\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_persons\_not\_in\_motor\_vehicles\_in\_transport\_mvit,

city\_name,

CASE

when land\_use\_name in ('Not Reported','Unknown','Trafficway Not in State Inventory') then 'others'

else land\_use\_name END,

CASE

when functional\_system\_name in ('Not Reported','Unknown') then 'others'

else functional\_system\_name END,

CASE

when milepoint in (99999,99998,00000) then 0 --angka 0 menunjukkan 'others'

else milepoint

END,

CASE

when manner\_of\_collision\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else manner\_of\_collision\_name END,

CASE

when type\_of\_intersection\_name in ('Not Reported','Reported as Unknown') then 'others'

else type\_of\_intersection\_name

END,

CASE

when light\_condition\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else light\_condition\_name end,

case when atmospheric\_conditions\_1\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else atmospheric\_conditions\_1\_name END,

number\_of\_fatalities, number\_of\_drunk\_drivers,timestamp\_of\_crash,

CASE

WHEN state\_name IN ('Connecticut','Delaware','Georgia','Maine', 'Maryland', 'Massachusetts', 'Michigan', 'New Hampshire', 'New Jersey', 'New York', 'North Carolina', 'Ohio', 'Pennsylvania', 'Rhode Island', 'South Carolina', 'Vermont', 'Virginia', 'Washington DC', 'West Virginia','Florida', 'Indiana', 'Kentucky', 'Tennessee') THEN timestamp\_of\_crash AT TIME ZONE 'EST'

WHEN state\_name IN ('Alabama', 'Arkansas', 'Illinois', 'Iowa', 'Louisiana', 'Michigan','Upper Peninsula', 'Minnesota', 'Mississippi', 'Missouri', 'Nebraska', 'Oklahoma', 'Wisconsin','District of Columbia')THEN timestamp\_of\_crash AT TIME ZONE 'CST'

WHEN state\_name IN ('Arizona', 'Colorado', 'Montana', 'New Mexico', 'Utah', 'Wyoming','Kansas', 'Nebraska', 'North Dakota', 'South Dakota', 'Texas')THEN timestamp\_of\_crash AT TIME ZONE 'MST'

WHEN state\_name IN ('California', 'Nevada', 'Washington','Idaho', 'Oregon') THEN timestamp\_of\_crash AT TIME ZONE 'PST'

WHEN state\_name IN ('Alaska','Anchorage', 'Juneau', 'Nome') THEN timestamp\_of\_crash AT TIME ZONE 'AKST'

WHEN state\_name IN ('Aleutian islands', 'Hawaii') THEN timestamp\_of\_crash AT TIME ZONE 'HST'

END converted\_timestamp

FROM crash ) x

group by type\_of\_intersection\_name

order by number\_of\_vehicle\_forms\_submitted\_all desc

**--Faktor Fungsional Jalan Pada Jalan Type Not an Intersection**

**--QUERY 2**

select distinct type\_of\_intersection\_name , functional\_system\_name,

count (number\_of\_vehicle\_forms\_submitted\_all) number\_of\_vehicle\_forms\_submitted\_all

from (

select consecutive\_number, state\_name, number\_of\_vehicle\_forms\_submitted\_all,

number\_of\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_parked\_working\_vehicles,

number\_of\_forms\_submitted\_for\_persons\_not\_in\_motor\_vehicles,

number\_of\_persons\_in\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_persons\_not\_in\_motor\_vehicles\_in\_transport\_mvit,

city\_name,

CASE

when land\_use\_name in ('Not Reported','Unknown','Trafficway Not in State Inventory') then 'others'

else land\_use\_name END,

CASE

when functional\_system\_name in ('Not Reported','Unknown', 'Trafficway Not in State Inventory') then 'others'

else functional\_system\_name END,

CASE

when milepoint in (99999,99998,00000) then 0 --angka 0 menunjukkan 'others'

else milepoint

END,

CASE

when manner\_of\_collision\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else manner\_of\_collision\_name END,

CASE

when type\_of\_intersection\_name in ('Not Reported','Reported as Unknown') then 'others'

else type\_of\_intersection\_name

END,

CASE

when light\_condition\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else light\_condition\_name end,

case when atmospheric\_conditions\_1\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else atmospheric\_conditions\_1\_name END,

number\_of\_fatalities, number\_of\_drunk\_drivers,timestamp\_of\_crash,

CASE

WHEN state\_name IN ('Connecticut','Delaware','Georgia','Maine', 'Maryland', 'Massachusetts', 'Michigan', 'New Hampshire', 'New Jersey', 'New York', 'North Carolina', 'Ohio', 'Pennsylvania', 'Rhode Island', 'South Carolina', 'Vermont', 'Virginia', 'Washington DC', 'West Virginia','Florida', 'Indiana', 'Kentucky', 'Tennessee') THEN timestamp\_of\_crash AT TIME ZONE 'EST'

WHEN state\_name IN ('Alabama', 'Arkansas', 'Illinois', 'Iowa', 'Louisiana', 'Michigan','Upper Peninsula', 'Minnesota', 'Mississippi', 'Missouri', 'Nebraska', 'Oklahoma', 'Wisconsin','District of Columbia')THEN timestamp\_of\_crash AT TIME ZONE 'CST'

WHEN state\_name IN ('Arizona', 'Colorado', 'Montana', 'New Mexico', 'Utah', 'Wyoming','Kansas', 'Nebraska', 'North Dakota', 'South Dakota', 'Texas')THEN timestamp\_of\_crash AT TIME ZONE 'MST'

WHEN state\_name IN ('California', 'Nevada', 'Washington','Idaho', 'Oregon') THEN timestamp\_of\_crash AT TIME ZONE 'PST'

WHEN state\_name IN ('Alaska','Anchorage', 'Juneau', 'Nome') THEN timestamp\_of\_crash AT TIME ZONE 'AKST'

WHEN state\_name IN ('Aleutian islands', 'Hawaii') THEN timestamp\_of\_crash AT TIME ZONE 'HST'

END converted\_timestamp

FROM crash ) x

where type\_of\_intersection\_name = 'Not an Intersection'

group by type\_of\_intersection\_name, functional\_system\_name

order by number\_of\_vehicle\_forms\_submitted\_all desc

**--Fungsi Jalan di Type Not an Intersection Berdasarkan Jumlah Kecelakan dan Jumlah Korban Dengan Kategori Fatal**

**--QUERY 3**

select distinct functional\_system\_name,

count (number\_of\_vehicle\_forms\_submitted\_all) number\_of\_vehicle\_forms\_submitted\_all,

sum (number\_of\_fatalities) number\_of\_fatalities

from (

select consecutive\_number, state\_name, number\_of\_vehicle\_forms\_submitted\_all,

number\_of\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_parked\_working\_vehicles,

number\_of\_forms\_submitted\_for\_persons\_not\_in\_motor\_vehicles,

number\_of\_persons\_in\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_persons\_not\_in\_motor\_vehicles\_in\_transport\_mvit,

city\_name,

CASE

when land\_use\_name in ('Not Reported','Unknown','Trafficway Not in State Inventory') then 'others'

else land\_use\_name END,

CASE

when functional\_system\_name in ('Not Reported','Unknown', 'Trafficway Not in State Inventory') then 'others'

else functional\_system\_name END,

CASE

when milepoint in (99999,99998,00000) then 0 --angka 0 menunjukkan 'others'

else milepoint

END,

CASE

when manner\_of\_collision\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else manner\_of\_collision\_name END,

CASE

when type\_of\_intersection\_name in ('Not Reported','Reported as Unknown') then 'others'

else type\_of\_intersection\_name

END,

CASE

when light\_condition\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else light\_condition\_name end,

case when atmospheric\_conditions\_1\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else atmospheric\_conditions\_1\_name END,

number\_of\_fatalities, number\_of\_drunk\_drivers,timestamp\_of\_crash,

CASE

WHEN state\_name IN ('Connecticut','Delaware','Georgia','Maine', 'Maryland', 'Massachusetts', 'Michigan', 'New Hampshire', 'New Jersey', 'New York', 'North Carolina', 'Ohio', 'Pennsylvania', 'Rhode Island', 'South Carolina', 'Vermont', 'Virginia', 'Washington DC', 'West Virginia','Florida', 'Indiana', 'Kentucky', 'Tennessee') THEN timestamp\_of\_crash AT TIME ZONE 'EST'

WHEN state\_name IN ('Alabama', 'Arkansas', 'Illinois', 'Iowa', 'Louisiana', 'Michigan','Upper Peninsula', 'Minnesota', 'Mississippi', 'Missouri', 'Nebraska', 'Oklahoma', 'Wisconsin','District of Columbia')THEN timestamp\_of\_crash AT TIME ZONE 'CST'

WHEN state\_name IN ('Arizona', 'Colorado', 'Montana', 'New Mexico', 'Utah', 'Wyoming','Kansas', 'Nebraska', 'North Dakota', 'South Dakota', 'Texas')THEN timestamp\_of\_crash AT TIME ZONE 'MST'

WHEN state\_name IN ('California', 'Nevada', 'Washington','Idaho', 'Oregon') THEN timestamp\_of\_crash AT TIME ZONE 'PST'

WHEN state\_name IN ('Alaska','Anchorage', 'Juneau', 'Nome') THEN timestamp\_of\_crash AT TIME ZONE 'AKST'

WHEN state\_name IN ('Aleutian islands', 'Hawaii') THEN timestamp\_of\_crash AT TIME ZONE 'HST'

END converted\_timestamp

FROM crash ) x

where type\_of\_intersection\_name = 'Not an Intersection'

group by type\_of\_intersection\_name, functional\_system\_name

order by number\_of\_vehicle\_forms\_submitted\_all desc

**--Jumlah Kecelakaan Berdasarkan Light Condition**

**--QUERY 4**

select distinct light\_condition\_name,count (number\_of\_vehicle\_forms\_submitted\_all) number\_of\_vehicle\_forms\_submitted\_all

from (

select consecutive\_number, state\_name, number\_of\_vehicle\_forms\_submitted\_all,

number\_of\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_parked\_working\_vehicles,

number\_of\_forms\_submitted\_for\_persons\_not\_in\_motor\_vehicles,

number\_of\_persons\_in\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_persons\_not\_in\_motor\_vehicles\_in\_transport\_mvit,

city\_name,

CASE

when land\_use\_name in ('Not Reported','Unknown','Trafficway Not in State Inventory') then 'others'

else land\_use\_name END,

CASE

when functional\_system\_name in ('Not Reported','Unknown') then 'others'

else functional\_system\_name END,

CASE

when milepoint in (99999,99998,00000) then 0 --angka 0 menunjukkan 'others'

else milepoint

END,

CASE

when manner\_of\_collision\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else manner\_of\_collision\_name END,

CASE

when type\_of\_intersection\_name in ('Not Reported','Reported as Unknown') then 'others'

else type\_of\_intersection\_name

END,

CASE

when light\_condition\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else light\_condition\_name end,

case when atmospheric\_conditions\_1\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else atmospheric\_conditions\_1\_name END,

number\_of\_fatalities, number\_of\_drunk\_drivers,timestamp\_of\_crash,

CASE

WHEN state\_name IN ('Connecticut','Delaware','Georgia','Maine', 'Maryland', 'Massachusetts', 'Michigan', 'New Hampshire', 'New Jersey', 'New York', 'North Carolina', 'Ohio', 'Pennsylvania', 'Rhode Island', 'South Carolina', 'Vermont', 'Virginia', 'Washington DC', 'West Virginia','Florida', 'Indiana', 'Kentucky', 'Tennessee') THEN timestamp\_of\_crash AT TIME ZONE 'EST'

WHEN state\_name IN ('Alabama', 'Arkansas', 'Illinois', 'Iowa', 'Louisiana', 'Michigan','Upper Peninsula', 'Minnesota', 'Mississippi', 'Missouri', 'Nebraska', 'Oklahoma', 'Wisconsin','District of Columbia')THEN timestamp\_of\_crash AT TIME ZONE 'CST'

WHEN state\_name IN ('Arizona', 'Colorado', 'Montana', 'New Mexico', 'Utah', 'Wyoming','Kansas', 'Nebraska', 'North Dakota', 'South Dakota', 'Texas')THEN timestamp\_of\_crash AT TIME ZONE 'MST'

WHEN state\_name IN ('California', 'Nevada', 'Washington','Idaho', 'Oregon') THEN timestamp\_of\_crash AT TIME ZONE 'PST'

WHEN state\_name IN ('Alaska','Anchorage', 'Juneau', 'Nome') THEN timestamp\_of\_crash AT TIME ZONE 'AKST'

WHEN state\_name IN ('Aleutian islands', 'Hawaii') THEN timestamp\_of\_crash AT TIME ZONE 'HST'

END converted\_timestamp

FROM crash ) x

group by x.light\_condition\_name

order by number\_of\_vehicle\_forms\_submitted\_all desc

**Jawaban Pertanyaan No 2**

**--10 teratas negara bagian di mana kecelakaan paling banyak terjadi**

**--QUERY 1**

select distinct state\_name ,

count (number\_of\_vehicle\_forms\_submitted\_all) number\_of\_vehicle\_forms\_submitted\_all

from (

select consecutive\_number, state\_name, number\_of\_vehicle\_forms\_submitted\_all,

number\_of\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_parked\_working\_vehicles,

number\_of\_forms\_submitted\_for\_persons\_not\_in\_motor\_vehicles,

number\_of\_persons\_in\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_persons\_not\_in\_motor\_vehicles\_in\_transport\_mvit,

city\_name,

CASE

when land\_use\_name in ('Not Reported','Unknown','Trafficway Not in State Inventory') then 'others'

else land\_use\_name END,

CASE

when functional\_system\_name in ('Not Reported','Unknown') then 'others'

else functional\_system\_name END,

CASE

when milepoint in (99999,99998,00000) then 0 --angka 0 menunjukkan 'others'

else milepoint

END,

CASE

when manner\_of\_collision\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else manner\_of\_collision\_name END,

CASE

when type\_of\_intersection\_name in ('Not Reported','Reported as Unknown') then 'others'

else type\_of\_intersection\_name

END,

CASE

when light\_condition\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else light\_condition\_name end,

case when atmospheric\_conditions\_1\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else atmospheric\_conditions\_1\_name END,

number\_of\_fatalities, number\_of\_drunk\_drivers,timestamp\_of\_crash,

CASE

WHEN state\_name IN ('Connecticut','Delaware','Georgia','Maine', 'Maryland', 'Massachusetts', 'Michigan', 'New Hampshire', 'New Jersey', 'New York', 'North Carolina', 'Ohio', 'Pennsylvania', 'Rhode Island', 'South Carolina', 'Vermont', 'Virginia', 'Washington DC', 'West Virginia','Florida', 'Indiana', 'Kentucky', 'Tennessee') THEN timestamp\_of\_crash AT TIME ZONE 'EST'

WHEN state\_name IN ('Alabama', 'Arkansas', 'Illinois', 'Iowa', 'Louisiana', 'Michigan','Upper Peninsula', 'Minnesota', 'Mississippi', 'Missouri', 'Nebraska', 'Oklahoma', 'Wisconsin','District of Columbia')THEN timestamp\_of\_crash AT TIME ZONE 'CST'

WHEN state\_name IN ('Arizona', 'Colorado', 'Montana', 'New Mexico', 'Utah', 'Wyoming','Kansas', 'Nebraska', 'North Dakota', 'South Dakota', 'Texas')THEN timestamp\_of\_crash AT TIME ZONE 'MST'

WHEN state\_name IN ('California', 'Nevada', 'Washington','Idaho', 'Oregon') THEN timestamp\_of\_crash AT TIME ZONE 'PST'

WHEN state\_name IN ('Alaska','Anchorage', 'Juneau', 'Nome') THEN timestamp\_of\_crash AT TIME ZONE 'AKST'

WHEN state\_name IN ('Aleutian islands', 'Hawaii') THEN timestamp\_of\_crash AT TIME ZONE 'HST'

END converted\_timestamp

FROM crash ) x

group by x.state\_name

order by number\_of\_vehicle\_forms\_submitted\_all desc

limit 10

**--Mengidentifikasi faktor resiko yang menyebabkan kecelakaan di Texas dibandingkan dengan negara bagian dengan populasi terbesar yaitu California**

**--QUERY 2**

select distinct state\_name ,

sum (number\_of\_vehicle\_forms\_submitted\_all) amount\_of\_vehicle\_forms\_submitted\_all,

sum (number\_of\_fatalities) number\_of\_fatalities

from (

select consecutive\_number, state\_name, number\_of\_vehicle\_forms\_submitted\_all,

number\_of\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_parked\_working\_vehicles,

number\_of\_forms\_submitted\_for\_persons\_not\_in\_motor\_vehicles,

number\_of\_persons\_in\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_persons\_not\_in\_motor\_vehicles\_in\_transport\_mvit,

city\_name,

CASE

when land\_use\_name in ('Not Reported','Unknown','Trafficway Not in State Inventory') then 'others'

else land\_use\_name END,

CASE

when functional\_system\_name in ('Not Reported','Unknown') then 'others'

else functional\_system\_name END,

CASE

when milepoint in (99999,99998,00000) then 0 --angka 0 menunjukkan 'others'

else milepoint

END,

CASE

when manner\_of\_collision\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else manner\_of\_collision\_name END,

CASE

when type\_of\_intersection\_name in ('Not Reported','Reported as Unknown') then 'others'

else type\_of\_intersection\_name

END,

CASE

when light\_condition\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else light\_condition\_name end,

case when atmospheric\_conditions\_1\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else atmospheric\_conditions\_1\_name END,

number\_of\_fatalities, number\_of\_drunk\_drivers,timestamp\_of\_crash,

CASE

WHEN state\_name IN ('Connecticut','Delaware','Georgia','Maine', 'Maryland', 'Massachusetts', 'Michigan', 'New Hampshire', 'New Jersey', 'New York', 'North Carolina', 'Ohio', 'Pennsylvania', 'Rhode Island', 'South Carolina', 'Vermont', 'Virginia', 'Washington DC', 'West Virginia','Florida', 'Indiana', 'Kentucky', 'Tennessee') THEN timestamp\_of\_crash AT TIME ZONE 'EST'

WHEN state\_name IN ('Alabama', 'Arkansas', 'Illinois', 'Iowa', 'Louisiana', 'Michigan','Upper Peninsula', 'Minnesota', 'Mississippi', 'Missouri', 'Nebraska', 'Oklahoma', 'Wisconsin','District of Columbia')THEN timestamp\_of\_crash AT TIME ZONE 'CST'

WHEN state\_name IN ('Arizona', 'Colorado', 'Montana', 'New Mexico', 'Utah', 'Wyoming','Kansas', 'Nebraska', 'North Dakota', 'South Dakota', 'Texas')THEN timestamp\_of\_crash AT TIME ZONE 'MST'

WHEN state\_name IN ('California', 'Nevada', 'Washington','Idaho', 'Oregon') THEN timestamp\_of\_crash AT TIME ZONE 'PST'

WHEN state\_name IN ('Alaska','Anchorage', 'Juneau', 'Nome') THEN timestamp\_of\_crash AT TIME ZONE 'AKST'

WHEN state\_name IN ('Aleutian islands', 'Hawaii') THEN timestamp\_of\_crash AT TIME ZONE 'HST'

END converted\_timestamp

FROM crash ) x

group by x.state\_name

order by amount\_of\_vehicle\_forms\_submitted\_all desc

limit 10

--Mengidentifikasi faktor resiko yang menyebabkan kecelakaan di Texas dibandingkan dengan negara bagian dengan populasi terbesar yaitu California

--QUERY 3

WITH clean\_data\_crash as

(select consecutive\_number, state\_name, number\_of\_vehicle\_forms\_submitted\_all,

number\_of\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_parked\_working\_vehicles,

number\_of\_forms\_submitted\_for\_persons\_not\_in\_motor\_vehicles,

number\_of\_persons\_in\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_persons\_not\_in\_motor\_vehicles\_in\_transport\_mvit,

city\_name,

CASE

when land\_use\_name in ('Not Reported','Unknown','Trafficway Not in State Inventory') then 'others'

else land\_use\_name END,

CASE

when functional\_system\_name in ('Not Reported','Unknown') then 'others'

else functional\_system\_name END,

CASE

when milepoint in (99999,99998,00000) then 0 --angka 0 menunjukkan 'others'

else milepoint

END,

CASE

when manner\_of\_collision\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else manner\_of\_collision\_name END,

CASE

when type\_of\_intersection\_name in ('Not Reported','Reported as Unknown') then 'others'

else type\_of\_intersection\_name

END,

CASE

when light\_condition\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else light\_condition\_name end,

case when atmospheric\_conditions\_1\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else atmospheric\_conditions\_1\_name END,

number\_of\_fatalities, number\_of\_drunk\_drivers,timestamp\_of\_crash,

CASE

WHEN state\_name IN ('Connecticut','Delaware','Georgia','Maine', 'Maryland', 'Massachusetts', 'Michigan', 'New Hampshire', 'New Jersey', 'New York', 'North Carolina', 'Ohio', 'Pennsylvania', 'Rhode Island', 'South Carolina', 'Vermont', 'Virginia', 'Washington DC', 'West Virginia','Florida', 'Indiana', 'Kentucky', 'Tennessee') THEN timestamp\_of\_crash AT TIME ZONE 'EST'

WHEN state\_name IN ('Alabama', 'Arkansas', 'Illinois', 'Iowa', 'Louisiana', 'Michigan','Upper Peninsula', 'Minnesota', 'Mississippi', 'Missouri', 'Nebraska', 'Oklahoma', 'Wisconsin','District of Columbia')THEN timestamp\_of\_crash AT TIME ZONE 'CST'

WHEN state\_name IN ('Arizona', 'Colorado', 'Montana', 'New Mexico', 'Utah', 'Wyoming','Kansas', 'Nebraska', 'North Dakota', 'South Dakota', 'Texas')THEN timestamp\_of\_crash AT TIME ZONE 'MST'

WHEN state\_name IN ('California', 'Nevada', 'Washington','Idaho', 'Oregon') THEN timestamp\_of\_crash AT TIME ZONE 'PST'

WHEN state\_name IN ('Alaska','Anchorage', 'Juneau', 'Nome') THEN timestamp\_of\_crash AT TIME ZONE 'AKST'

WHEN state\_name IN ('Aleutian islands', 'Hawaii') THEN timestamp\_of\_crash AT TIME ZONE 'HST'

END converted\_timestamp

FROM crash)

SELECT state\_name,

sum(case when atmospheric\_conditions\_1\_name not in ('Clear','others')then 1 else 0 end) as atm\_effect, sum(number\_of\_drunk\_drivers) as drunkdriver\_case,

sum(case when type\_of\_intersection\_name not in ('Not an Intersection','others')then 1 else 0 end) as intersection\_effect,

sum(case when light\_condition\_name ilike ('Dark - Not Lighted') then 1 else 0 end) as light\_condition

FROM clean\_data\_crash

WHERE state\_name in ('Texas','California')

GROUP BY state\_name

ORDER BY state\_name DESC

**Jawaban Peertanyaan NO.3**

**--Jumlah rata-rata kejadian kecelakaan perhari berdasarkan jam terjadinya kecelakaan**

**--QUERY 1**

select consecutive\_number, state\_name, number\_of\_vehicle\_forms\_submitted\_all,

number\_of\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_parked\_working\_vehicles,

number\_of\_forms\_submitted\_for\_persons\_not\_in\_motor\_vehicles,

number\_of\_persons\_in\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_persons\_not\_in\_motor\_vehicles\_in\_transport\_mvit,

city\_name,

CASE

when land\_use\_name in ('Not Reported','Unknown','Trafficway Not in State Inventory') then 'others'

else land\_use\_name END,

CASE

when functional\_system\_name in ('Not Reported','Unknown') then 'others'

else functional\_system\_name END,

CASE

when milepoint in (99999,99998,00000) then 0 --angka 0 menunjukkan 'others'

else milepoint

END,

CASE

when manner\_of\_collision\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else manner\_of\_collision\_name END,

CASE

when type\_of\_intersection\_name in ('Not Reported','Reported as Unknown') then 'others'

else type\_of\_intersection\_name

END,

CASE

when light\_condition\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else light\_condition\_name end,

case when atmospheric\_conditions\_1\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else atmospheric\_conditions\_1\_name END,

number\_of\_fatalities, number\_of\_drunk\_drivers,timestamp\_of\_crash,

CASE

WHEN state\_name IN ('Connecticut','Delaware','Georgia','Maine', 'Maryland', 'Massachusetts', 'Michigan', 'New Hampshire', 'New Jersey', 'New York', 'North Carolina', 'Ohio', 'Pennsylvania', 'Rhode Island', 'South Carolina', 'Vermont', 'Virginia', 'Washington DC', 'West Virginia','Florida', 'Indiana', 'Kentucky', 'Tennessee') THEN timestamp\_of\_crash AT TIME ZONE 'EST'

WHEN state\_name IN ('Alabama', 'Arkansas', 'Illinois', 'Iowa', 'Louisiana', 'Michigan','Upper Peninsula', 'Minnesota', 'Mississippi', 'Missouri', 'Nebraska', 'Oklahoma', 'Wisconsin','District of Columbia')THEN timestamp\_of\_crash AT TIME ZONE 'CST'

WHEN state\_name IN ('Arizona', 'Colorado', 'Montana', 'New Mexico', 'Utah', 'Wyoming','Kansas', 'Nebraska', 'North Dakota', 'South Dakota', 'Texas')THEN timestamp\_of\_crash AT TIME ZONE 'MST'

WHEN state\_name IN ('California', 'Nevada', 'Washington','Idaho', 'Oregon') THEN timestamp\_of\_crash AT TIME ZONE 'PST'

WHEN state\_name IN ('Alaska','Anchorage', 'Juneau', 'Nome') THEN timestamp\_of\_crash AT TIME ZONE 'AKST'

WHEN state\_name IN ('Aleutian islands', 'Hawaii') THEN timestamp\_of\_crash AT TIME ZONE 'HST'

END converted\_timestamp

FROM crash

"SELECT extract(hour from converted\_timestamp) as accident\_hour,

count (consecutive\_number)/(extract(day from max(converted\_timestamp)-min(converted\_timestamp))+1) as accident\_perhour\_perday

from clean\_data\_crash

GROUP BY accident\_hour

ORDER BY accident\_hour ASC"

**--Mengidentitikasi area dimana banyak terjadi kecelakaan saat jam rata-rata terjadi kecelakaan paling tinggi (jam 11 - 15)**

**--QUERY 2**

WITH clean\_data\_crash as

(select consecutive\_number, state\_name, number\_of\_vehicle\_forms\_submitted\_all,

number\_of\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_parked\_working\_vehicles,

number\_of\_forms\_submitted\_for\_persons\_not\_in\_motor\_vehicles,

number\_of\_persons\_in\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_persons\_not\_in\_motor\_vehicles\_in\_transport\_mvit,

city\_name,

CASE

when land\_use\_name in ('Not Reported','Unknown','Trafficway Not in State Inventory') then 'others'

else land\_use\_name END,

CASE

when functional\_system\_name in ('Not Reported','Unknown') then 'others'

else functional\_system\_name END,

CASE

when milepoint in (99999,99998,00000) then 0 --angka 0 menunjukkan 'others'

else milepoint

END,

CASE

when manner\_of\_collision\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else manner\_of\_collision\_name END,

CASE

when type\_of\_intersection\_name in ('Not Reported','Reported as Unknown') then 'others'

else type\_of\_intersection\_name

END,

CASE

when light\_condition\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else light\_condition\_name end,

case when atmospheric\_conditions\_1\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else atmospheric\_conditions\_1\_name END,

number\_of\_fatalities, number\_of\_drunk\_drivers,timestamp\_of\_crash,

CASE

WHEN state\_name IN ('Connecticut','Delaware','Georgia','Maine', 'Maryland', 'Massachusetts', 'Michigan', 'New Hampshire', 'New Jersey', 'New York', 'North Carolina', 'Ohio', 'Pennsylvania', 'Rhode Island', 'South Carolina', 'Vermont', 'Virginia', 'Washington DC', 'West Virginia','Florida', 'Indiana', 'Kentucky', 'Tennessee') THEN timestamp\_of\_crash AT TIME ZONE 'EST'

WHEN state\_name IN ('Alabama', 'Arkansas', 'Illinois', 'Iowa', 'Louisiana', 'Michigan','Upper Peninsula', 'Minnesota', 'Mississippi', 'Missouri', 'Nebraska', 'Oklahoma', 'Wisconsin','District of Columbia')THEN timestamp\_of\_crash AT TIME ZONE 'CST'

WHEN state\_name IN ('Arizona', 'Colorado', 'Montana', 'New Mexico', 'Utah', 'Wyoming','Kansas', 'Nebraska', 'North Dakota', 'South Dakota', 'Texas')THEN timestamp\_of\_crash AT TIME ZONE 'MST'

WHEN state\_name IN ('California', 'Nevada', 'Washington','Idaho', 'Oregon') THEN timestamp\_of\_crash AT TIME ZONE 'PST'

WHEN state\_name IN ('Alaska','Anchorage', 'Juneau', 'Nome') THEN timestamp\_of\_crash AT TIME ZONE 'AKST'

WHEN state\_name IN ('Aleutian islands', 'Hawaii') THEN timestamp\_of\_crash AT TIME ZONE 'HST'

END converted\_timestamp

FROM crash)

SELECT extract(hour from converted\_timestamp), count(case when type\_of\_intersection\_name in ('Not an Intersection')then 1 end) total\_straight\_road\_accident,

count(case when type\_of\_intersection\_name in ('Not an Intersection') and manner\_of\_collision\_name not in ('The First Harmful Event was Not a Collision with a Motor Vehicle in Transport') then 1 end) motorvehicle\_collision\_on\_straight\_road,

count(case when type\_of\_intersection\_name in ('Not an Intersection') and manner\_of\_collision\_name in ('The First Harmful Event was Not a Collision with a Motor Vehicle in Transport')

then 1 end) single\_accident\_on\_straight\_road

FROM clean\_data\_crash

WHERE atmospheric\_conditions\_1\_name in ('Clear')

GROUP BY extract(hour from converted\_timestamp)

ORDER BY extract(hour from converted\_timestamp)

**Jawaban Pertanyaan N0.4**

**--Persentase kecelakaan yang disebabkan oleh pengemudi yang mabuk**

**--QUERY 1**

select consecutive\_number, state\_name, number\_of\_vehicle\_forms\_submitted\_all,

number\_of\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_parked\_working\_vehicles,

number\_of\_forms\_submitted\_for\_persons\_not\_in\_motor\_vehicles,

number\_of\_persons\_in\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_persons\_not\_in\_motor\_vehicles\_in\_transport\_mvit,

city\_name,

CASE

when land\_use\_name in ('Not Reported','Unknown','Trafficway Not in State Inventory') then 'others'

else land\_use\_name END,

CASE

when functional\_system\_name in ('Not Reported','Unknown') then 'others'

else functional\_system\_name END,

CASE

when milepoint in (99999,99998,00000) then 0 --angka 0 menunjukkan 'others'

else milepoint

END,

CASE

when manner\_of\_collision\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else manner\_of\_collision\_name END,

CASE

when type\_of\_intersection\_name in ('Not Reported','Reported as Unknown') then 'others'

else type\_of\_intersection\_name

END,

CASE

when light\_condition\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else light\_condition\_name end,

case when atmospheric\_conditions\_1\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else atmospheric\_conditions\_1\_name END,

number\_of\_fatalities, number\_of\_drunk\_drivers,timestamp\_of\_crash,

CASE

WHEN state\_name IN ('Connecticut','Delaware','Georgia','Maine', 'Maryland', 'Massachusetts', 'Michigan', 'New Hampshire', 'New Jersey', 'New York', 'North Carolina', 'Ohio', 'Pennsylvania', 'Rhode Island', 'South Carolina', 'Vermont', 'Virginia', 'Washington DC', 'West Virginia','Florida', 'Indiana', 'Kentucky', 'Tennessee') THEN timestamp\_of\_crash AT TIME ZONE 'EST'

WHEN state\_name IN ('Alabama', 'Arkansas', 'Illinois', 'Iowa', 'Louisiana', 'Michigan','Upper Peninsula', 'Minnesota', 'Mississippi', 'Missouri', 'Nebraska', 'Oklahoma', 'Wisconsin','District of Columbia')THEN timestamp\_of\_crash AT TIME ZONE 'CST'

WHEN state\_name IN ('Arizona', 'Colorado', 'Montana', 'New Mexico', 'Utah', 'Wyoming','Kansas', 'Nebraska', 'North Dakota', 'South Dakota', 'Texas')THEN timestamp\_of\_crash AT TIME ZONE 'MST'

WHEN state\_name IN ('California', 'Nevada', 'Washington','Idaho', 'Oregon') THEN timestamp\_of\_crash AT TIME ZONE 'PST'

WHEN state\_name IN ('Alaska','Anchorage', 'Juneau', 'Nome') THEN timestamp\_of\_crash AT TIME ZONE 'AKST'

WHEN state\_name IN ('Aleutian islands', 'Hawaii') THEN timestamp\_of\_crash AT TIME ZONE 'HST'

END converted\_timestamp

FROM crash

"SELECT count(case when number\_of\_drunk\_drivers >0 then 1 end) as total\_drunkdrivers\_case,

count(case when number\_of\_drunk\_drivers = 0 then 1 end) as case\_without\_drunkdrivers

from clean\_data\_crash"

**--Jam Kecelakaan yang disebabkan oleh penegemudi mabuk**

**--QUERY 2**

select consecutive\_number, state\_name, number\_of\_vehicle\_forms\_submitted\_all,

number\_of\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_parked\_working\_vehicles,

number\_of\_forms\_submitted\_for\_persons\_not\_in\_motor\_vehicles,

number\_of\_persons\_in\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_persons\_not\_in\_motor\_vehicles\_in\_transport\_mvit,

city\_name,

CASE

when land\_use\_name in ('Not Reported','Unknown','Trafficway Not in State Inventory') then 'others'

else land\_use\_name END,

CASE

when functional\_system\_name in ('Not Reported','Unknown') then 'others'

else functional\_system\_name END,

CASE

when milepoint in (99999,99998,00000) then 0 --angka 0 menunjukkan 'others'

else milepoint

END,

CASE

when manner\_of\_collision\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else manner\_of\_collision\_name END,

CASE

when type\_of\_intersection\_name in ('Not Reported','Reported as Unknown') then 'others'

else type\_of\_intersection\_name

END,

CASE

when light\_condition\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else light\_condition\_name end,

case when atmospheric\_conditions\_1\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else atmospheric\_conditions\_1\_name END,

number\_of\_fatalities, number\_of\_drunk\_drivers,timestamp\_of\_crash,

CASE

WHEN state\_name IN ('Connecticut','Delaware','Georgia','Maine', 'Maryland', 'Massachusetts', 'Michigan', 'New Hampshire', 'New Jersey', 'New York', 'North Carolina', 'Ohio', 'Pennsylvania', 'Rhode Island', 'South Carolina', 'Vermont', 'Virginia', 'Washington DC', 'West Virginia','Florida', 'Indiana', 'Kentucky', 'Tennessee') THEN timestamp\_of\_crash AT TIME ZONE 'EST'

WHEN state\_name IN ('Alabama', 'Arkansas', 'Illinois', 'Iowa', 'Louisiana', 'Michigan','Upper Peninsula', 'Minnesota', 'Mississippi', 'Missouri', 'Nebraska', 'Oklahoma', 'Wisconsin','District of Columbia')THEN timestamp\_of\_crash AT TIME ZONE 'CST'

WHEN state\_name IN ('Arizona', 'Colorado', 'Montana', 'New Mexico', 'Utah', 'Wyoming','Kansas', 'Nebraska', 'North Dakota', 'South Dakota', 'Texas')THEN timestamp\_of\_crash AT TIME ZONE 'MST'

WHEN state\_name IN ('California', 'Nevada', 'Washington','Idaho', 'Oregon') THEN timestamp\_of\_crash AT TIME ZONE 'PST'

WHEN state\_name IN ('Alaska','Anchorage', 'Juneau', 'Nome') THEN timestamp\_of\_crash AT TIME ZONE 'AKST'

WHEN state\_name IN ('Aleutian islands', 'Hawaii') THEN timestamp\_of\_crash AT TIME ZONE 'HST'

END converted\_timestamp

FROM crash

"SELECT land\_use\_name,

count(case when number\_of\_drunk\_drivers >0 then 1 end) as total\_drunkdrivers\_case

from clean\_data\_crash

where land\_use\_name not in ('others')

group by land\_use\_name"

**Jawaban Pertanyaan No.5**

**--Persentasi kecelakaan di daerah pedesaan dan perkotaan**

WITH crash\_clean AS

(SELECT consecutive\_number, state\_name, number\_of\_vehicle\_forms\_submitted\_all,

number\_of\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_parked\_working\_vehicles,

number\_of\_forms\_submitted\_for\_persons\_not\_in\_motor\_vehicles,

number\_of\_persons\_in\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_persons\_not\_in\_motor\_vehicles\_in\_transport\_mvit,

city\_name,

CASE

when land\_use\_name in ('Not Reported','Unknown','Trafficway Not in State Inventory') then 'others'

else land\_use\_name END,

CASE

when functional\_system\_name in ('Not Reported','Unknown') then 'others'

else functional\_system\_name END,

CASE

when milepoint in (99999,99998,00000) then 0 --angka 0 menunjukkan 'others'

else milepoint

END,

CASE

when manner\_of\_collision\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else manner\_of\_collision\_name END,

CASE

when type\_of\_intersection\_name in ('Not Reported','Reported as Unknown') then 'others'

else type\_of\_intersection\_name

END,

CASE

when light\_condition\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else light\_condition\_name end,

case when atmospheric\_conditions\_1\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else atmospheric\_conditions\_1\_name END,

number\_of\_fatalities, number\_of\_drunk\_drivers,timestamp\_of\_crash,

CASE

WHEN state\_name IN ('Connecticut','Delaware','Georgia','Maine', 'Maryland', 'Massachusetts', 'Michigan', 'New Hampshire', 'New Jersey', 'New York', 'North Carolina', 'Ohio', 'Pennsylvania', 'Rhode Island', 'South Carolina', 'Vermont', 'Virginia', 'Washington DC', 'West Virginia','Florida', 'Indiana', 'Kentucky', 'Tennessee') THEN timestamp\_of\_crash AT TIME ZONE 'EST'

WHEN state\_name IN ('Alabama', 'Arkansas', 'Illinois', 'Iowa', 'Louisiana', 'Michigan','Upper Peninsula', 'Minnesota', 'Mississippi', 'Missouri', 'Nebraska', 'Oklahoma', 'Wisconsin','District of Columbia')THEN timestamp\_of\_crash AT TIME ZONE 'CST'

WHEN state\_name IN ('Arizona', 'Colorado', 'Montana', 'New Mexico', 'Utah', 'Wyoming','Kansas', 'Nebraska', 'North Dakota', 'South Dakota', 'Texas')THEN timestamp\_of\_crash AT TIME ZONE 'MST'

WHEN state\_name IN ('California', 'Nevada', 'Washington','Idaho', 'Oregon') THEN timestamp\_of\_crash AT TIME ZONE 'PST'

WHEN state\_name IN ('Alaska','Anchorage', 'Juneau', 'Nome') THEN timestamp\_of\_crash AT TIME ZONE 'AKST'

WHEN state\_name IN ('Aleutian islands', 'Hawaii') THEN timestamp\_of\_crash AT TIME ZONE 'HST'

END converted\_timestamp

FROM crash

), crash\_final AS

(SELECT \* FROM crash\_clean

WHERE EXTRACT(year from converted\_timestamp) = 2021)

SELECT

CASE

WHEN land\_use\_name = 'Rural' THEN 'Village'

WHEN land\_use\_name = 'Urban' THEN 'City'

WHEN land\_use\_name = 'ELSE' THEN 'Others'

ELSE 'Others'

END AS area,

COUNT(\*) AS crash\_final,

(COUNT(\*) \* 100.0) / (SELECT COUNT(\*) FROM crash) AS prosentase

FROM crash\_final

GROUP BY area

ORDER BY crash\_final DESC

**Jawaban Pertanyaan No.6**

**--Jumlah kecelakaan berdasarkan hari**

WITH crash\_clean AS

(SELECT consecutive\_number, state\_name, number\_of\_vehicle\_forms\_submitted\_all,

number\_of\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_parked\_working\_vehicles,

number\_of\_forms\_submitted\_for\_persons\_not\_in\_motor\_vehicles,

number\_of\_persons\_in\_motor\_vehicles\_in\_transport\_mvit,

number\_of\_persons\_not\_in\_motor\_vehicles\_in\_transport\_mvit,

city\_name,

CASE

when land\_use\_name in ('Not Reported','Unknown','Trafficway Not in State Inventory') then 'others'

else land\_use\_name END,

CASE

when functional\_system\_name in ('Not Reported','Unknown') then 'others'

else functional\_system\_name END,

CASE

when milepoint in (99999,99998,00000) then 0 --angka 0 menunjukkan 'others'

else milepoint

END,

CASE

when manner\_of\_collision\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else manner\_of\_collision\_name END,

CASE

when type\_of\_intersection\_name in ('Not Reported','Reported as Unknown') then 'others'

else type\_of\_intersection\_name

END,

CASE

when light\_condition\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else light\_condition\_name end,

case when atmospheric\_conditions\_1\_name in ('Reported as Unknown', 'Other', 'Not Reported') then 'others'

else atmospheric\_conditions\_1\_name END,

number\_of\_fatalities, number\_of\_drunk\_drivers,timestamp\_of\_crash,

CASE

WHEN state\_name IN ('Connecticut','Delaware','Georgia','Maine', 'Maryland', 'Massachusetts', 'Michigan', 'New Hampshire', 'New Jersey', 'New York', 'North Carolina', 'Ohio', 'Pennsylvania', 'Rhode Island', 'South Carolina', 'Vermont', 'Virginia', 'Washington DC', 'West Virginia','Florida', 'Indiana', 'Kentucky', 'Tennessee') THEN timestamp\_of\_crash AT TIME ZONE 'EST'

WHEN state\_name IN ('Alabama', 'Arkansas', 'Illinois', 'Iowa', 'Louisiana', 'Michigan','Upper Peninsula', 'Minnesota', 'Mississippi', 'Missouri', 'Nebraska', 'Oklahoma', 'Wisconsin','District of Columbia')THEN timestamp\_of\_crash AT TIME ZONE 'CST'

WHEN state\_name IN ('Arizona', 'Colorado', 'Montana', 'New Mexico', 'Utah', 'Wyoming','Kansas', 'Nebraska', 'North Dakota', 'South Dakota', 'Texas')THEN timestamp\_of\_crash AT TIME ZONE 'MST'

WHEN state\_name IN ('California', 'Nevada', 'Washington','Idaho', 'Oregon') THEN timestamp\_of\_crash AT TIME ZONE 'PST'

WHEN state\_name IN ('Alaska','Anchorage', 'Juneau', 'Nome') THEN timestamp\_of\_crash AT TIME ZONE 'AKST'

WHEN state\_name IN ('Aleutian islands', 'Hawaii') THEN timestamp\_of\_crash AT TIME ZONE 'HST'

END converted\_timestamp

FROM crash

), crash\_final AS

(SELECT \* FROM crash\_clean

WHERE EXTRACT(year from converted\_timestamp) = 2021)

SELECT

TO\_CHAR(converted\_timestamp, 'Day') AS day,

COUNT (\*) AS crash\_clean

FROM Crash\_clean

GROUP BY day

ORDER BY Crash\_clean DESC