Road Accident SQL Queries
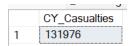
Select * From road_accident

CY Casualties

Select SUM (number_of_casualties) as CY_Casualties

from road_accident

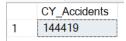where year(accident_date) = '2022' And road_surface_conditions = 'Dry'

	CY_Casualties
1	131976

CY Accidents

Select Count (distinct accident_index) as CY_Accidents

from road_accident

where year(accident_date) = '2022'

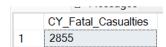|	CY_Accidents
1	144419

CY Fatal Casualties by year

Select SUM (number_of_casualties) as CY_Fatal_Casualties

from road_accident

where year(accident_date) = '2022' And accident_severity = 'Fatal'

	CY_Fatal_Casualties
1	2855

CY Fatal Casualties by Accident severity

Select SUM (number_of_casualties) as CY_Fatal_Casualties

from road_accident

where accident_severity = 'Fatal'

	CY_Fatal_Casualties
1	7135

CY Serious Casualties by year

Select SUM (number_of_casualties) as CY_Serious_Casualties

from road_accident

where year(accident_date) = '2022' And accident_severity = 'Serious'

	CY_Serious_Casualties
1	27045

CY Serious Casualties by Accident severity

Select SUM (number_of_casualties) as CY_Serious_Casualties

from road_accident

where accident_severity = 'Serious'

	CY_Serious_Casualties
1	59312

CY Slight Casualties by year

Select SUM (number_of_casualties) as CY_Slight_Casualties

from road_accident

where year(accident_date) = '2022' And accident_severity = 'Slight'

	CY_Slight_Casualties
1	165837

CY Serious Casualties by accident severity

Select SUM (number_of_casualties) as CY_Slight_Casualties

from road_accident

where accident_severity = 'Slight'

	CY_Slight_Casualties
1	351436

CY Fatal Casualties percentage

Select cast (SUM (number_of_casualties) as decimal (10,2))*100 /

(Select cast (SUM (number_of_casualties) as decimal (10,2)) from road_accident) as CY_Fatal_Casualties_percentage

from road_accident

where accident_severity = 'Fatal'

	CY_Fatal_Casualties_percentage
1	1.7074157120533

CY Serious Casualties percentage

Select cast (SUM (number_of_casualties) as decimal (10,2))*100 /

(Select cast (SUM (number_of_casualties) as decimal (10,2)) from road_accident) as CY_Serious_Casualties_percentage

from road_accident

where accident_severity = 'Serious'

	CY_Serious_Casualties_percentage
1	14.1934464910034

CY Slight Casualties percentage

Select cast (SUM (number_of_casualties) as decimal (10,2))*100 /

(Select cast (SUM (number_of_casualties) as decimal (10,2)) from road_accident) as CY_Slight_Casualties_percentage

from road_accident

where accident_severity = 'Slight'

	CY_Slight_Casualties_percentage
1	84.0991377969431

Distinct vehicle type

select distinct vehicle_type from road_accident

	vehicle_type
1	Motorcycle over 125cc and up to 500cc
2	Minibus (8 - 16 passenger seats)
3	Goods 7.5 tonnes mgw and over
4	Motorcycle over 500cc
5	Taxi/Private hire car
6	Car
7	Other vehicle
8	Motorcycle 50cc and under
9	Goods over 3.5t. and under 7.5t
10	Van / Goods 3.5 tonnes mgw or under
11	Bus or coach (17 or more pass seats)
12	Pedal cycle
13	Motorcycle 125cc and under
14	Agricultural vehicle
15	Ridden horse

Vehicle group Vs CY Casualties

select

case

when vehicle_type in ('Agricultural vehicle') then 'Agricultural'

when vehicle_type in ('Car', 'Taxi/Private hire car') then 'Car'

when vehicle_type in ('Motorcycle over 125cc and up to 500cc', 'Motorcycle 125cc and under', 'Motorcycle over 500cc', 'Motorcycle 50cc and under', 'Pedal cycle') then 'Bike'

when vehicle_type in ('Minibus (8 - 16 passenger seats)', 'Bus or coach (17 or more pass seats)') then 'Bus'

when vehicle_type in ('Goods 7.5 tonnes mgw and over', 'Goods over 3.5t. and under 7.5t', 'Van / Goods 3.5 tonnes mgw or under') then 'Van'

else 'Other'

end as vehicle_group,

sum (number_of_casualties) as CY_Casualties from road_accident

where year(accident_date) = '2022'

group by

case

when vehicle_type in ('Agricultural vehicle') then 'Agricultural'

when vehicle_type in ('Car', 'Taxi/Private hire car') then'Car'

when vehicle_type in ('Motorcycle over 125cc and up to 500cc', 'Motorcycle 125cc and under', 'Motorcycle over 500cc', 'Motorcycle 50cc and under', 'Pedal cycle') then'Bike'

when vehicle_type in ('Minibus (8 - 16 passenger seats)', 'Bus or coach (17 or more pass seats)') then'Bus'

when vehicle_type in ('Goods 7.5 tonnes mgw and over', 'Goods over 3.5t. and under 7.5t', 'Van / Goods 3.5 tonnes mgw or under') then'Van'

else 'Other'

end

	vehicle_group	CY_Casualties
1	Other	1446
2	Agricultural	399
3	Car	155804
4	Bike	15610
5	Bus	6573
6	Van	15905

Month name VS CY Casualties

select DATENAME(month, accident_date) as Month_name, sum(number_of_casualties) as CY_Casualties

from road_accident

where YEAR (accident_date)='2022'

group by DATENAME (month, accident_date)

order by Month_name

	Month_name	CY_Casualties
1	April	15767
2	August	16796
3	December	13200
4	February	14804
5	January	13163
6	July	17201
7	June	17230
8	March	16575
9	May	16775
10	November	18439
11	October	18287
12	September	17500

Road type vs casualties 2021, casualties 2022

SELECT road_type,

SUM (CASE WHEN YEAR (accident_date) = 2021 THEN number_of_casualties ELSE 0 END) AS casualties_2021,

SUM (CASE WHEN YEAR (accident_date) = 2022 THEN number_of_casualties ELSE 0 END) AS casualties_2022

FROM road_accident

WHERE YEAR (accident_date) IN (2021, 2022)

GROUP BY road_type;

	road_type	casualties_2021	casualties_2022
1	Roundabout	14145	12683
2	Slip road	3610	2990
3	Dual carriageway	35456	31912
4	One way street	3890	3499
5	Single carriageway	165045	144653

Urban or rural area vs PCT

select urban_or_rural_area, cast(sum(number_of_casualties) as decimal (10,2)) * 100 /

(select cast(sum(number_of_casualties) as decimal (10,2)) from road_accident where YEAR (accident_date)='2022') as PCT

from road_accident

where YEAR (accident_date)='2022'

group by urban_or_rural_area

	urban_or_rural_area	PCT
1	Rural	38.0541236455039
2	Urban	61.9458763544960

Distinct light conditions

select distinct light_conditions from road_accident

	light_conditions
1	Darkness - no lighting
2	Darkness - lights lit
3	Daylight
4	Darkness - lighting unknown
5	Darkness - lights unlit

Light condition VS CY casualties PCT

Select

      case

            when light_conditions in ('Daylight') then 'Day'

            when light_conditions in ('Darkness - no lighting','Darkness - lights unlit','Darkness - lights lit','Darkness - lighting unknown') then 'Night'

end as Light_Condition,

cast(cast(sum(number_of_casualties) as decimal (10,2)) * 100 /

(select cast(sum(number_of_casualties) as decimal (10,2)) from road_accident where YEAR (accident_date)='2022') as decimal (10,2)) as CY_Casualties_PCT

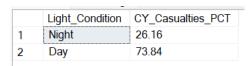from road_accident

where YEAR (accident_date)='2022'

group by

case

when light_conditions in ('Daylight') then 'Day'

when light_conditions in ('Darkness - no lighting','Darkness - lights unlit','Darkness - lights lit','Darkness - lighting unknown') then 'Night'

end

	Light_Condition	CY_Casualties_PCT
1	Night	26.16
2	Day	73.84

Local authority VS Total Casualties

select top 10 local_authority, sum(number_of_casualties) as Total_Casualties

from road_accident

group by local_authority

order by Total_Casualties desc

	local_authority	Total_Casualties
1	Birmingham	8611
2	Leeds	5821
3	Bradford	4431
4	Manchester	4366
5	Liverpool	4052
6	Cornwall	3820
7	Sheffield	3737
8	Kirklees	3312
9	County Durham	3295
10	Westminster	3169