

ROAD ACCIDENT ANALYSIS BY SQL QUERIES IN MYSQL RDBMS

-- 1. Total Number Of casualties of this year

```
select sum(number_of_casualties) as current_year_casualties from road_accident  
where Year(accident_date)='2022';
```

	Current_Year_casualties
▶	165781

-- 2. Total Number of accident of this year

```
select count(distinct(accident_index)) as Current_year_accident from road_accident  
where year(accident_date)='2022';
```

	Current_year_accident
▶	122825

-- 3. Current Year fatal Casualtes

```
select sum(number_of_casualties) as Current_year_Fatal from road_accident  
where year(accident_date)='2022' and accident_severity='fatal';
```

	Current_year_Fatal
▶	2296

--4. Current Year Serious casualties

```
select sum(number_of_casualties) as Current_year_Serious from road_accident  
where year(accident_date)='2022' and accident_severity='Serious';
```

	Current_year_Serious
▶	22791

--5. Current Year Slight Casualties

```
select sum(number_of_casualties) as Current_year_slight from road_accident  
where year(accident_date)='2022' and accident_severity='slight';
```

	Current_year_Slight
▶	140694

-- 6.Group the Vehicle type with their number of accident by them

SELECT

CASE

WHEN vehicle_type IN ('Car', 'Taxi/Private hire car') THEN 'cars'

WHEN vehicle_type = 'Agricultural Vehicle' THEN 'Agricultural'

WHEN vehicle_type IN ('Motorcycle 125cc and under', 'Motorcycle 50cc and under', 'Motorcycle over 125cc
and up to 500cc') THEN 'bikes'

WHEN vehicle_type IN ('Bus or coach (17 or more pass seats)', 'Minibus (8 - 16 passenger seats)') THEN
'buses'

WHEN vehicle_type IN ('Goods over 3.5t. and under 7.5t', 'Van / Goods 3.5 tonnes mgw or under', 'Goods 7.5
tonnes mgw and over') THEN 'Vans'

ELSE 'Others'

END AS vehicle_category,

SUM(Number_of_casualties) AS Current_year_casualties

FROM

road_accident

WHERE

YEAR(accident_date) = 2022

GROUP BY

vehicle_category;

	vehide_category	Current_year_casualties
►	cars	131514
	Others	6905
	Vans	13811
	bikes	7473
	buses	5758
	Agricultural	320

-- 7. Current Year casualties month trend

```
select Monthname(accident_date) as Month_name, sum(Number_of_casualties) as CY_casualties
```

```
from road_accident
```

```
where year(accident_date)='2022'
```

```
Group by Month_name;
```

	Month_name	CY_casualties
►	January	11387
	February	12820
	March	14302
	April	13499
	May	14502
	June	14726
	July	14393
	August	13801
	September	14461
	October	15254
	November	15581
	December	11055

-- 8. Previous Year casualties month trend

```
select Monthname(accident_date) as Month_name, sum(Number_of_casualties) as Previous_casualties
```

```
from road_accident
```

```
where year(accident_date)='2021'
```

```
Group by Month_name;
```

	Month_name	Previous_casualties
▶	January	18173
	February	14648
	March	17815
	April	17335
	May	18852
	June	18728
	August	18797
	July	19682
	September	18456
	October	20109
	November	20975
	December	18576

-- 9. Casualties in different Different Type Road Types

```
select road_type, sum(number_of_casualties) from road_accident
```

```
where year(accident_date)='2022'
```

Group by road_type

	road_type	sum(number_of_casualties)
▶	Single carriageway	121717
	Roundabout	10670
	Dual carriageway	28004
	One way street	2897
	Slip road	2493

-- 10. Casualties in Rural and Urban Areas

```
select urban_or_rural_area ,sum(number_of_casualties)
```

```
from road_accident
```

```
where year(accident_date)='2022'
```

```
group by urban_or_rural_area;
```

	urban_or_rural_area	sum(number_of_casualties)
▶	Urban	107422
	Rural	58359

-- 11. Casualties by lightening Condition

select case

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

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

end as Light_condition,

sum(number_of_casualties) from road_accident

where year(accident_date)='2022'

group by light_condition;

	Light_condition	sum(number_of_casualties)
▶	Day	121743
	Night	44038

-- 12. Top 10 location where the highest number of casualties occurred

select local_authority, sum(number_of_casualties) as total_casualties

from road_accident

where Year(accident_date)='2022'

group by local_authority

order by total_casualties desc limit 10

	local_authority	total_casualties
▶	Birmingham	4092
	Leeds	2764
	Bradford	2089
	Liverpool	2077
	Manchester	1962
	Sheffield	1764
	County Durham	1708
	Cheshire East	1656
	Kirklees	1614
	Westminster	1599