

ROAD ACCIDENT ANALYSIS SQL QUERIES

CY = Current Year
PY = Previous Year

CY Accident

```
SELECT COUNT(distinct accident_index) AS CY_Accident
From road_accident
Where YEAR(accident_date) = '2022'
```

Results	Messages
	CY_Accident
1	144419

PY Accident

```
SELECT COUNT(distinct accident_index) AS PY_Accident
From road_accident
Where YEAR(accident_date) = '2021'
```

Results	Messages
	PY_Accident
1	163554

Total Accident

```
SELECT COUNT(distinct accident_index) AS Total_Accident
From road_accident
```

Results	Messages
	Total_Accident
1	307973

CY Casualties

```
SELECT SUM(number_of_casualties) AS CY_casualties
From road_accident
Where YEAR(accident_date) = '2022'
```

Results	Messages
	CY_casualties
1	195737

PY Casualties

```
SELECT SUM(number_of_casualties) AS PY_casualties
From road_accident
Where YEAR(accident_date) = '2021'
```

Results	Messages
	PY_casualties
1	222146

Total Casualties

```
SELECT SUM(number_of_casualties) AS Total_casualties
From road_accident
```

Results	Messages
	Total_casualties
1	417883

CY Fatal Casualties

```
SELECT SUM(number_of_casualties) AS CY_Fatal_Casualties
From road_accident
Where YEAR(accident_date) = '2022' and accident_severity = 'Fatal'
```

Results	Messages
	CY_Fatal_Casualties
1	2855

PY Fatal Casualties

```
SELECT SUM(number_of_casualties) AS PY_Fatal_Casualties
From road_accident
Where YEAR(accident_date) = '2021' and accident_severity = 'Fatal'
```

Results	Messages
	PY_Fatal_Casualties
1	4280

Total Fatal Casualties

```
SELECT SUM(number_of_casualties) AS Fatal_Casualties
From road_accident
Where accident_severity = 'Fatal'
```

Results	Messages
	Fatal_Casualties
1	7135

CY Serious Casualties

```
SELECT SUM(number_of_casualties) AS CY_Serious_Casualties
From road_accident
Where YEAR(accident_date) = '2022' and accident_severity = 'Serious'
```

Results	Messages
	CY_Serious_Casualties
1	27045

PY Serious Casualties

```
SELECT SUM(number_of_casualties) AS PY_Serious_Casualties
From road_accident
Where YEAR(accident_date) = '2021' and accident_severity = 'Serious'
```

Results	Messages
	PY_Serious_Casualties
1	32267

Total Serious Casualties

```
SELECT SUM(number_of_casualties) AS Serious_Casualties
From road_accident Where accident_severity = 'Serious'
```

CY Slight Casualties

```
SELECT SUM(number_of_casualties) AS CY_Slight_Casualties
From road_accident
Where YEAR(accident_date) = '2022' and accident_severity = 'Slight'
```

PY Slight Casualties

```
SELECT SUM(number_of_casualties) AS PY_Slight_Casualties
From road_accident
Where YEAR(accident_date) = '2021' and accident_severity = 'Slight'
```

Total Slight Casualties

```
SELECT SUM(number_of_casualties) AS Slight_Casualties
From road_accident
Where accident_severity = 'Slight'
```

Results Messages

	Serious_Casualties
1	59312

Results Messages

	CY_Slight_Casualties
1	165837

Results Messages

	PY_Slight_Casualties
1	185599

Results Messages

	Slight_Casualties
1	351436

CY Casualties by Month

```
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), MONTH(accident_date)
ORDER BY MONTH(accident_date)
```

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

PY Casualties by Month

```
SELECT DATENAME(MONTH, accident_date) AS Month_Name,
SUM(number_of_casualties) as PY_Casualties
FROM road_accident
WHERE YEAR(accident_date) = '2021'
GROUP BY DATENAME(MONTH, accident_date), MONTH(accident_date)
ORDER BY MONTH(accident_date)
```

	Month_Name	PY_Casualties
1	January	18173
2	February	14648
3	March	17815
4	April	17335
5	May	18852
6	June	18728
7	July	19682
8	August	18797
9	September	18456
10	October	20109
11	November	20975
12	December	18576

Casualties by Road type

```
SELECT road_type, Sum(number_of_casualties) AS CY_Casualties
FROM road_accident
WHERE YEAR(accident_date) = ' 2022'
GROUP BY road_type
```

	road_type	CY_Casualties
1	Single carriageway	144653
2	One way street	3499
3	Roundabout	12683
4	Slip road	2990
5	Dual carriageway	31912

```
SELECT road_type, Sum(number_of_casualties) AS PY_Casualties
FROM road_accident
WHERE YEAR(accident_date) = ' 2021'
GROUP BY road_type
```

	road_type	PY_Casualties
1	Single carriageway	165045
2	One way street	3890
3	Roundabout	14145
4	Slip road	3610
5	Dual carriageway	35456

Casualties by Area

```
SELECT urban_or_rural_area,CASE(CAST(Sum(number_of_casualties) AS decimal (10,2)) *100 /
(SELECT CAST(Sum(number_of_casualties) AS decimal (10,2)) FROM road_accident ) AS "%
Total"
FROM road_accident
GROUP BY urban_or_rural_area
```

	urban_or_rural_area	% Total
1	Rural	38.7713785916153
2	Urban	61.2286214083846

Casualties by Vehicle type

```
SELECT
CASE
    WHEN vehicle_type IN ('Agricultural vehicle') THEN 'Agriculture'
    WHEN vehicle_type IN ('Car', 'Taxi/Private hire car') THEN 'Cars'
    WHEN vehicle_type IN ('Motorcycle 125cc and under', 'Motorcycle 50cc and
under', 'Motorcycle over 125cc and up to 500cc',
'Motorcycle over 500cc', 'Pedal cycle')
THEN 'Bike'
    WHEN vehicle_type IN ('Bus or coach (17 or more pass seats)', 'Minibus (8 -
16 passenger 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 'Goods'
    ELSE 'others'

END AS vehicle_group,

Sum(number_of_casualties) AS Casualties

FROM road_accident
--WHERE YEAR(accident_date) =' 2022'
GROUP BY
CASE
    WHEN vehicle_type IN ('Agricultural vehicle') THEN 'Agriculture'
    WHEN vehicle_type IN ('Car', 'Taxi/Private hire car') THEN 'Cars'
    WHEN vehicle_type IN ('Motorcycle 125cc and under', 'Motorcycle 50cc and
under', 'Motorcycle over 125cc and up to 500cc',
'Motorcycle over 500cc', 'Pedal cycle')
THEN 'Bike'
    WHEN vehicle_type IN ('Bus or coach (17 or more pass seats)', 'Minibus (8 -
16 passenger 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 'Goods'
    ELSE 'others'

END
```

	vehicle_group	Casualties
1	Cars	333485
2	Bike	33764
3	Goods	33472
4	Bus	12798
5	others	3332
6	Agriculture	1032

Casualties by Light Conditions

```
SELECT
    CASE
        WHEN light_conditions IN ('Daylight') THEN 'Day'
        WHEN light_conditions IN ('Darkness - lighting unknown', 'Darkness - lights
lit',
            'Darkness - lights unlit', 'Darkness - no lighting') THEN 'Night'
    END AS Light_Conditions,
    CAST(CAST(Sum(number_of_casualties) AS decimal (10,2)) *100 /
(SELECT CAST(Sum(number_of_casualties) AS decimal (10,2)) FROM road_accident )AS decimal
(10,2)) AS "Total % Casualties"
FROM road_accident
GROUP BY
    CASE
        WHEN light_conditions IN ('Daylight') THEN 'Day'
        WHEN light_conditions IN ('Darkness - lighting unknown', 'Darkness - lights
lit',
            'Darkness - lights unlit', 'Darkness - no lighting') THEN 'Night'
    END
```

	Light_Conditions	Total % Casualties
1	Day	72.98
2	Night	27.02