ROAD ACCIDENTS ANALYTICS – SQL QUERIES

TOTAL CASUALTIES

```
SELECT SUM(number_of_casualties) AS Total_Casualties
FROM road_accidents
```

	Total_Casualties
1	417883

CY CASUALTIES

```
SELECT SUM(number_of_casualties) AS CY_Casualties
FROM road_accidents
WHERE YEAR(accident_date) = '2022'
```

	CY_Casualties
1	195737

TOTAL ACCIDENTS

```
SELECT COUNT(DISTINCT accident_index) AS TOTAL_ACCIDENTS
FROM road_accidents
```

	TOTAL_ACCIDENTS
1	307973

CY ACCIDENTS

```
SELECT COUNT(DISTINCT accident_index) AS CY_ACCIDENTS
FROM road_accidents
WHERE YEAR(accident_date) = '2022'
```

	CY_ACCIDENTS
1	144419

TOTAL FATAL CASUALTIES

```
SELECT SUM( number_of_casualties) AS Total_Fatal_Casualties
FROM road_accidents
WHERE accident_severity = 'Fatal'
```

	Total_Fatal_Casualties
1	7135

TOTAL FATAL CASUALTIES IN PERCENTAGE

```
SELECT CAST(SUM(number_of_casualties) AS DECIMAL(10,2))*100/
```

```
(SELECT CAST(SUM(number_of_casualties) AS DECIMAL(10,2)) FROM
road_accidents)
AS Fatal_Casualties_Percentage FROM road_accidents
WHERE accident_severity = 'Fatal'
```

	Fatal_Casualties_Percentage
1	1.7074157120533

CY FATAL CASUALTIES

```
SELECT SUM( number_of_casualties) AS CY_Fatal_Casualties
FROM road_accidents
WHERE YEAR(accident_date) = '2022' AND accident_severity = 'Fa-
tal'
```

	CY_Fatal_Casualties
1	2855

TOTAL SERIOUS CASUALTIES

```
SELECT SUM( number_of_casualties) AS Total_Serious_Casualties
FROM road_accidents
WHERE accident_severity = 'Serious'
```

	Total_Serious_Casualties
1	59312

TOTAL SERIOUS CASUALTIES IN PERCENTAGE

```
SELECT CAST(SUM(number_of_casualties) AS DECIMAL(10,2))*100/
(SELECT CAST(SUM(number_of_casualties) AS DECIMAL(10,2)) FROM
road_accidents)
AS Serious_Casualties_Percentage FROM road_accidents
WHERE accident_severity = 'Serious'
```

	Serious_Casualties_Percentage
1	14.1934464910034

CY SERIOUS CASUALTIES

```
SELECT SUM( number_of_casualties) AS CY_Serious_Casualties
FROM road_accidents
WHERE YEAR(accident_date) = '2022' AND accident_severity = 'Se-
rious'
```

	CY_Serious_Casualties
1	27045

TOTAL SLIGHT CASUALTIES

```
SELECT SUM( number_of_casualties) AS Total_Slight_Casualties
FROM road_accidents
WHERE accident_severity = 'Slight'
```

	Total_Slight_Casualties
1	351436

TOTAL SLIGHT CASUALTIES IN PERCENTAGE

```
SELECT CAST(SUM(number_of_casualties) AS DECIMAL(10,2))*100/
(SELECT CAST(SUM(number_of_casualties) AS DECIMAL(10,2)) FROM
road_accidents)
AS Slight_Casualties_Percentage FROM road_accidents
WHERE accident_severity = 'Slight'
```

	Slight_Casualties_Percentage
1	84.0991377969431

CY SLIGHT CASUALTIES

```
SELECT SUM( number_of_casualties) AS CY_Slight_Casualties
FROM road_accidents
WHERE YEAR(accident_date) = '2022' AND accident_severity =
'Slight'
```

	CY_Slight_Casualties
1	165837

TOTAL CASUALTIES BY VEHICLE TYPE

```
SELECT
   CASE
   WHEN vehicle_type IN ('Agricultural vehicle') THEN 'Agricul-
tural'
   WHEN vehicle_type IN ('Taxi/Private hire car','Car') THEN
'Cars'
   WHEN vehicle_type IN ('Motorcycle over 500cc','Motorcycle
125cc
                         and under','Motorcycle 50cc and under',
```

```
                    'Motorcycle over 125cc and up to
500cc')
                    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 ('Van / Goods 3.5 tonnes mgw or under',
                    'Goods over 3.5t. and under 7.5t',
                    'Goods 7.5 tonnes mgw and over') THEN
'Van'
  ELSE 'Others'
  END AS vehicle_group,
  SUM(number_of_casualties) AS Total_Casualties
  FROM road_accidents
  GROUP BY
       CASE
  WHEN vehicle_type IN ('Agricultural vehicle') THEN 'Agricul-
tural'
  WHEN vehicle_type IN ('Taxi/Private hire car','Car') THEN
'Cars'
  WHEN vehicle_type IN ('Motorcycle over 500cc','Motorcycle
125cc
                    and under','Motorcycle 50cc and under',
                    'Motorcycle over 125cc and up to
500cc')
                    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 ('Van / Goods 3.5 tonnes mgw or under',
                    'Goods over 3.5t. and under 7.5t',
                    'Goods 7.5 tonnes mgw and over') THEN
'Van'
  ELSE 'Others'
  END
```

	vehicle_group	Total_Casualties
1	Cars	333485
2	Van	33472
3	Agricultural	1032
4	Bus	12798
5	Others	3424
6	Bike	33672

CY CASUALTIES BY VEHICLE TYPE

```
SELECT
   CASE
   WHEN vehicle_type IN ('Agricultural vehicle') THEN 'Agricul-
tural'
   WHEN vehicle_type IN ('Taxi/Private hire car','Car') THEN
'Cars'
   WHEN vehicle_type IN ('Motorcycle over 500cc','Motorcycle
125cc
                         and under','Motorcycle 50cc and un-
der',
                        'Motorcycle over 125cc and up to
500cc')
                    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 ('Van / Goods 3.5 tonnes mgw or under',
                         'Goods over 3.5t. and under 7.5t',
                         'Goods 7.5 tonnes mgw and over')
                    THEN 'Van'
   ELSE 'Others'
   END AS vehicle_group,
   SUM (number_of_casualties) AS Total_Casualties
   FROM road_accidents
   WHERE YEAR(accident_date) = '2022'
   GROUP BY
   WHEN vehicle_type IN ('Agricultural vehicle') THEN 'Agricul-
tural'
   WHEN vehicle_type IN ('Taxi/Private hire car','Car') THEN
'Cars'
   WHEN vehicle_type IN ('Motorcycle over 500cc','Motorcycle
125cc
```

```
                    and under','Motorcycle 50cc and un-
der',
                    'Motorcycle over 125cc and up to
500cc')
                    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 ('Van / Goods 3.5 tonnes mgw or under',
                    'Goods over 3.5t. and under 7.5t',
                    'Goods 7.5 tonnes mgw and over')
                    THEN 'Van'
    ELSE 'Others'
    END
```

	vehicle_group	Total_Casualties
1	Agricultural	399
2	Bike	15579
3	Bus	6573
4	Others	1477
5	Cars	155804
6	Van	15905

MONTHLY TREND OF CY CASUALTIES (2022)

```
SELECT DATENAME(MONTH, accident_date) AS Month_Name, SUM(num-
ber_of_casualties) AS CY_CASUALTIES
        FROM road_accidents
        WHERE YEAR(accident_date) = '2022'
        GROUP BY DATENAME(MONTH, accident_date)
```

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

MONTHLY TREND OF LAST YEAR CASUALTIES (2021)

```
SELECT DATENAME(MONTH, accident_date) AS Month_Name, SUM(num-
ber_of_casualties) AS LY_CASUALTIES
        FROM road_accidents
        WHERE YEAR(accident_date) = '2021'
        GROUP BY DATENAME(MONTH, accident_date)
```

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

TOTAL CASUALTIES BY ROAD TYPE

```
SELECT road_type, SUM(number_of_casualties) AS Total_Casualties
 FROM road_accidents
 GROUP BY road_type
```

	road_type	Total_Casualties
1	Dual carriageway	67368
2	Roundabout	26828
3	One way street	7389
4	Slip road	6600
5	Single carriageway	309698

CY CASUALTIES BY ROAD TYPE

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

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

TOTAL CASUALTIES BY AREA(URBAN/RURAL)

```
SELECT urban_or_rural_area, SUM(number_of_casualties) AS
Total_Casualties
FROM road_accidents
GROUP BY urban_or_rural_area
```

	urban_or_rural_area	Total_Casualties
1	Rural	162019
2	Urban	255864

TOTAL CASUALTIES BY AREA IN PERCENTAGE

```
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_accidents)
AS Total_Casualties_in_Percentage
FROM road_accidents
GROUP BY urban_or_rural_area
```

	urban_or_rural_area	Total_Casualties_in_Percentage
1	Rural	38.7713785916153
2	Urban	61.2286214083846

CY CASUALTIES BY AREA(URBAN/RURAL)

```
SELECT urban_or_rural_area, SUM(number_of_casualties) AS
CY_Casualties
FROM road_accidents
```

```
WHERE YEAR(accident_date) = '2022'
GROUP BY urban_or_rural_area
```

	urban_or_rural_area	CY_Casualties
1	Rural	74486
2	Urban	121251

CY CASUALTIES BY AREA IN PERCENTAGE

```
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_accidents
WHERE YEAR(accident_date) ='2022') AS CY_Casualties_in_Percent-
age
FROM road_accidents
WHERE YEAR(accident_date)='2022'
GROUP BY urban_or_rural_area
```

	urban_or_rural_area	CY_Casualties_in_Percentage
1	Rural	38.0541236455039
2	Urban	61.9458763544960

TOTAL CASUALTIES BY LIGHT CONDITIONS

```
SELECT
CASE
WHEN light_conditions IN ('Darkness - lights lit','Darkness -
                          lighting unknown','Darkness -
                          lights unlit','Darkness - no
                          lighting')
THEN 'Dark'
ELSE 'Daylight'
END AS light_conditions_group,
SUM(number_of_casualties) AS Total_Casualties
FROM road_accidents
GROUP BY
CASE
WHEN light_conditions IN ('Darkness - lights lit','Darkness -
                          lighting unknown','Darkness -
                          lights unlit','Darkness - no
                          lighting')
```

```
THEN 'Dark'
ELSE 'Daylight'
END
```

	light_conditions	Total_Casualties
1	Daylight	304963
2	Dark	112920

CY CASUALTIES BY LIGHT CONDITIONS

```
SELECT
CASE
WHEN light_conditions IN ('Darkness - lights lit','Darkness -
                          lighting unknown','Darkness -
                          lights unlit','Darkness - no
                          lighting')
THEN 'Dark'
ELSE 'Daylight'
END AS light_conditions_group,
SUM(number_of_casualties) AS CY_Casualties
FROM road_accidents
WHERE YEAR(accident_date) = '2022'
GROUP BY
CASE
WHEN light_conditions IN ('Darkness - lights lit','Darkness -
                          lighting unknown','Darkness -
                          lights unlit','Darkness - no
                          lighting')
THEN 'Dark'
ELSE 'Daylight'
END
```

	light_conditions_group	CY_Casualties
1	Daylight	144539
2	Dark	51198

TOTAL CASUALTIES BY ROAD SURFACE

```
SELECT
CASE
WHEN road_surface_conditions IN ('Dry') THEN 'Dry'
WHEN road_surface_conditions IN ('Frost or ice','Snow') THEN
'Frost/Snow'
```

```
WHEN road_surface_conditions IN ('Wet or damp','Flood over 3cm.
deep') THEN 'Wet'
ELSE '(Blank)'
END AS road_surface_conditions,
SUM(number_of_casualties) AS Total_Casualties
FROM road_accidents
GROUP BY
CASE
WHEN road_surface_conditions IN ('Dry') THEN 'Dry'
WHEN road_surface_conditions IN ('Frost or ice', 'Snow') THEN
'Frost/Snow'
WHEN road_surface_conditions IN ('Wet or damp','Flood over 3cm.
deep') THEN 'Wet'
ELSE '(Blank)'
END
```

	road_surface_conditions	Total_Casualties
1	Frost/Snow	22781
2	Dry	279445
3	Wet	115657

CY CASUALTIES BY ROAD SURFACE

```
SELECT
CASE
WHEN road_surface_conditions IN ('Dry') THEN 'Dry'
WHEN road_surface_conditions IN ('Frost or ice','Snow') THEN
'Frost/Snow'
WHEN road_surface_conditions IN ('Wet or damp','Flood over 3cm.
deep') THEN 'Wet'
ELSE '(Blank)'
END AS road_surface_conditions,
SUM(number_of_casualties) AS Total_Casualties
FROM road_accidents
WHERE YEAR(accident_date) = '2022'
GROUP BY
CASE
WHEN road_surface_conditions IN ('Dry') THEN 'Dry'
WHEN road_surface_conditions IN ('Frost or ice', 'Snow') THEN
'Frost/Snow'
```

```
WHEN road_surface_conditions IN ('Wet or damp','Flood over 3cm.
deep') THEN 'Wet'
ELSE '(Blank)'
END
```

	road_surface_conditions	Total_Casualties
1	Frost/Snow	13218
2	Dry	131976
3	Wet	50543

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