ROAD ACCIDENT ANALYSIS USING SQL

```
-- Q1 How many accidents occoured in urban areas vs Rural areas?
select Area, COUNT(AccidentIndex) AS Total_accident
from [dbo].[accident]
group by Area
```

| | area | Total_accident |
|---|-------|----------------|
| 1 | Rural | 109441 |
| 2 | Urban | 198532 |

-- Q2 Which day of the week has the highest no of accidents?
select dayofweek, COUNT(AccidentIndex) as Total_accidents
from [dbo].[accident]
group by Dayofweek
Order by Total_accidents desc;

| | dayofweek | Total_accidents |
|---|-----------|-----------------|
| 1 | Friday | 50529 |
| 2 | Tuesday | 46386 |
| 3 | Wednesday | 46381 |
| 4 | Thursday | 45649 |
| 5 | Monday | 43918 |
| 6 | Saturday | 41566 |
| 7 | Sunday | 33544 |

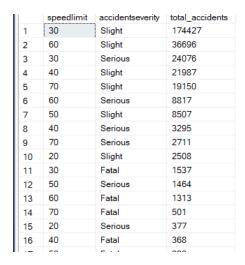
-- Q3 Which day of the week has the lowest no of accidents?

```
select dayofweek, COUNT(AccidentIndex) as Total_accidents
from [dbo].[accident]
group by Dayofweek
Order by Total_accidents asc;
```

| | dayofweek | Total_accidents |
|---|-----------|-----------------|
| 1 | Sunday | 33544 |
| 2 | Saturday | 41566 |
| 3 | Monday | 43918 |
| 4 | Thursday | 45649 |
| 5 | Wednesday | 46381 |
| 6 | Tuesday | 46386 |
| 7 | Friday | 50529 |

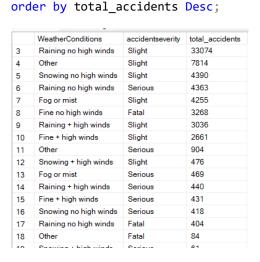
--Q4 Are there any Specific speed limit condition that contribute to severe accidents?

```
SELECT speedlimit,accidentseverity ,COUNT(AccidentIndex) AS total_accidents
FROM [dbo].[accident]
group by speedlimit,accidentseverity
order by total_accidents Desc;
```



--Q5 Are there any Specific weather condition that contribute to severe accidents?

SELECT WeatherConditions,accidentseverity ,COUNT(AccidentIndex) AS total_accidents
FROM [dbo].[accident]
group by WeatherConditions,accidentseverity



--Q6 Are there any Specific road surface condition that contribute to severe accidents?

SELECT roadsurfaceconditions,accidentseverity ,COUNT(AccidentIndex) AS total_accidents
FROM [dbo].[accident]
group by roadsurfaceconditions,accidentseverity
order by total_accidents Desc;

| | roadsurfaceconditions | accidentseverity | total_accidents |
|----|-----------------------|------------------|-----------------|
| 1 | Dry | Slight | 177582 |
| 2 | Wet or damp | Slight | 70400 |
| 3 | Dry | Serious | 28692 |
| 4 | Frost or ice | Slight | 10703 |
| 5 | Wet or damp | Serious | 10293 |
| 6 | Snow | Slight | 4287 |
| 7 | Dry | Fatal | 2693 |
| 8 | Frost or ice | Serious | 1259 |
| 9 | Wet or damp | Fatal | 1103 |
| 10 | Snow | Serious | 443 |
| 11 | Flood over 3cm. deep | Slight | 308 |
| 12 | Frost or ice | Fatal | 116 |
| 13 | Flood over 3cm. deep | Serious | 53 |
| 14 | Snow | Fatal | 28 |
| 15 | Flood over 3cm. deep | Fatal | 13 |

--Q7 Are there any Specific road surface and weather condition that contribute to severe accidents?

SELECT roadsurfaceconditions, Weather Conditions, COUNT (Accident Index) AS total_accidents FROM [dbo].[accident] group by Weather Conditions, roadsurface conditions order by total accidents Desc;

| | roadsurfaceconditions | WeatherConditions | total_accidents |
|----|-----------------------|-----------------------|-----------------|
| 1 | Dry | Fine no high winds | 200744 |
| 2 | Wet or damp | Fine no high winds | 36090 |
| 3 | Wet or damp | Raining no high winds | 34660 |
| 4 | Frost or ice | Fine no high winds | 6669 |
| 5 | Wet or damp | Other | 4165 |
| 6 | Wet or damp | Raining + high winds | 3361 |
| 7 | Frost or ice | Other | 3126 |
| 8 | Snow | Snowing no high winds | 2922 |
| 9 | Dry | Fog or mist | 2629 |
| 10 | Dry | Raining no high winds | 2510 |
| 11 | Dry | Fine + high winds | 1891 |
| 12 | Wet or damp | Fog or mist | 1661 |
| 13 | Frost or ice | Snowing no high winds | 1224 |
| 14 | Wet or damp | Fine + high winds | 1136 |
| 15 | Dry | Other | 1134 |
| 16 | Snow | Fine no high winds | 939 |
| 47 | 1M-4 J | Carried as bish minds | 660 |

--Q8 Calculate the average age of vehicle involve in accident considering day light.

SELECT lightconditions, COUNT(AccidentIndex) AS Total_accident
from [dbo].[accident]
Group by lightconditions

| | lightconditions | Total_accident |
|---|-----------------------------|----------------|
| 1 | Darkness - no lighting | 16528 |
| 2 | Darkness - lights lit | 60093 |
| 3 | Daylight | 227286 |
| 4 | Darkness - lights unlit | 1142 |
| 5 | Darkness - lighting unknown | 2924 |

-- Q9 How many number of vehicles involve in accident?

select vehicletype, COUNT(numberofvehicles) AS Total_vehicle, COUNT(AccidentIndex) AS
Total_accident
from [dbo].[accident]
group by vehicletype
order by total_accident Desc;

| | vehicletype | Total_vehicle | Total_accident |
|----|---------------------------------------|---------------|----------------|
| 1 | Car | 239794 | 239794 |
| 2 | Van / Goods 3.5 tonnes mgw or under | 15695 | 15695 |
| 3 | Motorcycle over 500cc | 11226 | 11226 |
| 4 | Bus or coach (17 or more pass seats) | 8686 | 8686 |
| 5 | Motorcycle 125cc and under | 6852 | 6852 |
| 6 | Goods 7.5 tonnes mgw and over | 6532 | 6532 |
| 7 | Taxi/Private hire car | 5543 | 5543 |
| 8 | Motorcycle 50cc and under | 3703 | 3703 |
| 9 | Motorcycle over 125cc and up to 500cc | 3285 | 3285 |
| 10 | Other vehicle | 2516 | 2516 |
| 11 | Goods over 3.5t. and under 7.5t | 2502 | 2502 |
| 12 | Minibus (8 - 16 passenger seats) | 821 | 821 |
| 13 | Agricultural vehicle | 749 | 749 |
| 14 | Pedal cycle | 66 | 66 |
| 15 | Ridden horse | 3 | 3 |