

TEST DOCUMENT

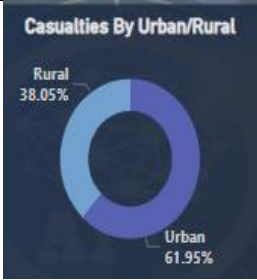
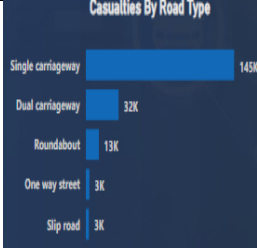
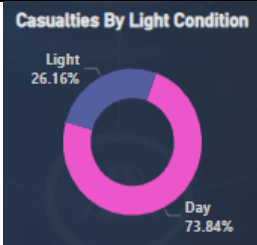
Name	Portfolio Project
Report Name	Road Accident Analytics Dashboard
Developer Name	Md. Touhiduzzaman
Development Tool	Power BI

SL	Name	Query	SQL Result	Power BI Report	Result				
1	KPI- Total CY Casualties	<pre>-- find current year total number of casualties and compare increase or decrease percentage CY vs PY SELECT TOTAL_CY_CASUALTIES, CY_VS_PY_PCT FROM (SELECT ROUND(CAST(SUM(NUMBER_OF_CASUALTIES) AS NUMERIC)/1000, 2) ' K' AS TOTAL_CY_CASUALTIES FROM ROAD_ACCIDENT_DATA WHERE YEAR = (SELECT MAX(YEAR) FROM ROAD_ACCIDENT_DATA)) AS X CROSS JOIN (SELECT ROUND((CAST(SUM(NUMBER_OF_CASUALTIES)-(SELECT SUM(NUMBER_OF_CASUALTIES) FROM ROAD_ACCIDENT_DATA WHERE YEAR = (SELECT MAX(YEAR) FROM ROAD_ACCIDENT_DATA)-1) AS NUMERIC)/ (SELECT SUM(NUMBER_OF_CASUALTIES) FROM ROAD_ACCIDENT_DATA WHERE YEAR = (SELECT MAX(YEAR) FROM ROAD_ACCIDENT_DATA)-1))*100, 2) ' %' AS CY_VS_PY_PCT FROM ROAD_ACCIDENT_DATA WHERE YEAR = (SELECT MAX(YEAR) FROM ROAD_ACCIDENT_DATA)) AS Y;</pre>	<table><tr><td>total_cy_casualties text</td><td>cy_vs_py_pct text</td></tr><tr><td>195.74 K</td><td>-11.89 %</td></tr></table>	total_cy_casualties text	cy_vs_py_pct text	195.74 K	-11.89 %	<div>Total CY Casualties 195.74K -11.89%</div>	Exact Match
total_cy_casualties text	cy_vs_py_pct text								
195.74 K	-11.89 %								

2	KPI- Total CY Accident	<pre>SELECT TOTAL_CY_ACCIDENTS, CY_VS_PY_PCT FROM (SELECT ROUND(CAST(COUNT(ACCIDENT_INDEX) AS NUMERIC)/1000, 2) ' K' AS TOTAL_CY_ACCIDENTS FROM ROAD_ACCIDENT_DATA WHERE YEAR = (SELECT MAX(YEAR) FROM ROAD_ACCIDENT_DATA)) AS X CROSS JOIN (SELECT ROUND(((CAST(COUNT(ACCIDENT_INDEX)-(SELECT COUNT(ACCIDENT_INDEX) FROM ROAD_ACCIDENT_DATA WHERE YEAR = (SELECT MAX(YEAR) FROM ROAD_ACCIDENT_DATA)-1) AS NUMERIC)/ (SELECT COUNT(ACCIDENT_INDEX) FROM ROAD_ACCIDENT_DATA WHERE YEAR = (SELECT MAX(YEAR) FROM ROAD_ACCIDENT_DATA)-1))*100, 2) ' %' AS CY_VS_PY_PCT FROM ROAD_ACCIDENT_DATA WHERE YEAR = (SELECT MAX(YEAR) FROM ROAD_ACCIDENT_DATA)) AS Y;</pre>	<table><tr><td>total_cy_accidents text</td><td>cy_vs_py_pct text</td></tr><tr><td>144.42 K</td><td>-11.70 %</td></tr></table>	total_cy_accidents text	cy_vs_py_pct text	144.42 K	-11.70 %	<div>Total CY Accidents</div> <div>144.42K</div> <div>-11.70%</div>	Exact Match
total_cy_accidents text	cy_vs_py_pct text								
144.42 K	-11.70 %								
3	KPI- Total Fatal Casualties	<pre>SELECT TOTAL_FATAL_CASUALTIES, CY_VS_PY_PCT FROM (SELECT ROUND(CAST(SUM(NUMBER_OF_CASUALTIES) AS NUMERIC)/1000, 2) ' K' AS TOTAL_FATAL_CASUALTIES FROM ROAD_ACCIDENT_DATA WHERE YEAR = (SELECT MAX(YEAR) FROM ROAD_ACCIDENT_DATA) AND ACCIDENT_SEVERITY = 'Fatal') AS X CROSS JOIN (SELECT ROUND(((CAST(SUM(NUMBER_OF_CASUALTIES)-(SELECT SUM(NUMBER_OF_CASUALTIES) FROM ROAD_ACCIDENT_DATA WHERE ACCIDENT_SEVERITY = 'Fatal' AND YEAR = (SELECT MAX(YEAR) FROM ROAD_ACCIDENT_DATA)-1) AS NUMERIC)/ (SELECT SUM(NUMBER_OF_CASUALTIES) FROM ROAD_ACCIDENT_DATA WHERE ACCIDENT_SEVERITY = 'Fatal' AND YEAR = (SELECT MAX(YEAR) FROM ROAD_ACCIDENT_DATA)-1))*100, 2) ' %' FROM ROAD_ACCIDENT_DATA WHERE YEAR = (SELECT MAX(YEAR) FROM ROAD_ACCIDENT_DATA) AND ACCIDENT_SEVERITY = 'Fatal') AS Y;</pre>	<table><tr><td>total_fatal_casualties text</td><td>cy_vs_py_pct text</td></tr><tr><td>2.86 K</td><td>-33.29 %</td></tr></table>	total_fatal_casualties text	cy_vs_py_pct text	2.86 K	-33.29 %	<div>CY Fatal Casualties</div> <div>2.86K</div> <div>-33.29%</div>	Exact Match
total_fatal_casualties text	cy_vs_py_pct text								
2.86 K	-33.29 %								

4	KPI- Total Serious Casualties	<pre>SELECT TOTAL_SERIOUS_CASUALTIES, CY_VS_PY_PCT FROM (SELECT ROUND(CAST(SUM(NUMBER_OF_CASUALTIES) AS NUMERIC)/1000, 2) ' K' AS TOTAL_SERIOUS_CASUALTIES FROM ROAD_ACCIDENT_DATA WHERE YEAR = (SELECT MAX(YEAR) FROM ROAD_ACCIDENT_DATA) AND ACCIDENT_SEVERITY = 'Serious') AS X CROSS JOIN (SELECT ROUND((CAST(SUM(NUMBER_OF_CASUALTIES)-(SELECT SUM(NUMBER_OF_CASUALTIES) FROM ROAD_ACCIDENT_DATA WHERE ACCIDENT_SEVERITY = 'Serious' AND YEAR = (SELECT MAX(YEAR) FROM ROAD_ACCIDENT_DATA)-1) AS NUMERIC)/ (SELECT SUM(NUMBER_OF_CASUALTIES) FROM ROAD_ACCIDENT_DATA WHERE ACCIDENT_SEVERITY = 'Serious' AND YEAR = (SELECT MAX(YEAR) FROM ROAD_ACCIDENT_DATA)-1))*100, 2) ' %' FROM ROAD_ACCIDENT_DATA WHERE YEAR = (SELECT MAX(YEAR) FROM ROAD_ACCIDENT_DATA) AND ACCIDENT_SEVERITY = 'Serious') AS Y;</pre>	<table><tr><td>total_serious_casualties text</td><td>cy_vs_py_pct text</td></tr><tr><td>27.05 K</td><td>-16.18 %</td></tr></table>	total_serious_casualties text	cy_vs_py_pct text	27.05 K	-16.18 %	<div>CY Serious Casualties</div> <div>27.05K</div> <div>-16.18%</div>	Exact Match
total_serious_casualties text	cy_vs_py_pct text								
27.05 K	-16.18 %								
5	KPI- Total Slight Casualties	<pre>SELECT TOTAL_SLIGHT_CASUALTIES, CY_VS_PY_PCT FROM (SELECT ROUND(CAST(SUM(NUMBER_OF_CASUALTIES) AS NUMERIC)/1000, 2) ' K' AS TOTAL_SLIGHT_CASUALTIES FROM ROAD_ACCIDENT_DATA WHERE YEAR = (SELECT MAX(YEAR) FROM ROAD_ACCIDENT_DATA) AND ACCIDENT_SEVERITY = 'Slight') AS X CROSS JOIN (SELECT ROUND((CAST(SUM(NUMBER_OF_CASUALTIES)-(SELECT SUM(NUMBER_OF_CASUALTIES) FROM ROAD_ACCIDENT_DATA WHERE ACCIDENT_SEVERITY = 'Slight' AND YEAR = (SELECT MAX(YEAR) FROM ROAD_ACCIDENT_DATA)-1) AS NUMERIC)/ (SELECT SUM(NUMBER_OF_CASUALTIES) FROM ROAD_ACCIDENT_DATA WHERE ACCIDENT_SEVERITY = 'Slight' AND YEAR = (SELECT MAX(YEAR) FROM ROAD_ACCIDENT_DATA)-1))*100, 2) ' %' FROM ROAD_ACCIDENT_DATA WHERE YEAR = (SELECT MAX(YEAR) FROM ROAD_ACCIDENT_DATA) AND ACCIDENT_SEVERITY = 'Slight') AS Y;</pre>	<table><tr><td>total_slight_casualties text</td><td>cy_vs_py_pct text</td></tr><tr><td>165.84 K</td><td>-10.65 %</td></tr></table>	total_slight_casualties text	cy_vs_py_pct text	165.84 K	-10.65 %	<div>CY Slight Casualties</div> <div>165.84K</div> <div>-10.65%</div>	Exact Match
total_slight_casualties text	cy_vs_py_pct text								
165.84 K	-10.65 %								

6	Casualties By Vehicle Type	<pre>SELECT VEHICLE_TYPE, SUM(TOTAL_CASUALTIES) AS TOTAL_CASUALTIES FROM (SELECT CASE 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 ('Car', 'Taxi/Private hire car') THEN 'Car' 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') WHEN VEHICLE_TYPE = 'Agricultural vehicle' THEN 'Agricultural' WHEN VEHICLE_TYPE IN ('Other vehicle', 'Ridden horse') THEN 'Other' END AS VEHICLE_TYPE, SUM(NUMBER_OF_CASUALTIES) AS TOTAL_CASUALTIES FROM ROAD_ACCIDENT_DATA WHERE YEAR = (SELECT MAX(YEAR) FROM ROAD_ACCIDENT_DATA) GROUP BY VEHICLE_TYPE) AS X GROUP BY X.VEHICLE_TYPE ORDER BY X.VEHICLE_TYPE</pre>	<table><thead><tr><th>vehicle_type text</th><th>total_casualties numeric</th></tr></thead><tbody><tr><td>Agricultural</td><td>399</td></tr><tr><td>Bike</td><td>15610</td></tr><tr><td>Bus</td><td>6573</td></tr><tr><td>Car</td><td>155804</td></tr><tr><td>Other</td><td>1446</td></tr><tr><td>Van</td><td>15905</td></tr></tbody></table>	vehicle_type text	total_casualties numeric	Agricultural	399	Bike	15610	Bus	6573	Car	155804	Other	1446	Van	15905	<div>Casualties By Vehicle Type</div> <table><thead><tr><th>Vehicle Type</th><th>Casualties</th></tr></thead><tbody><tr><td>Agricultural</td><td>399</td></tr><tr><td>Bike</td><td>15610</td></tr><tr><td>Bus</td><td>6573</td></tr><tr><td>Car</td><td>155804</td></tr><tr><td>Other</td><td>1446</td></tr><tr><td>Van</td><td>15905</td></tr></tbody></table>	Vehicle Type	Casualties	Agricultural	399	Bike	15610	Bus	6573	Car	155804	Other	1446	Van	15905	Exact Match																																																																																						
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7	CY Casualties VS PY Casualties Monthly trend	<pre>SELECT YEAR, MONTH, ROUND(CAST(SUM(NUMBER_OF_CASUALTIES) AS NUMERIC)/1000, 2) ' K' AS TOTAL_CASUALTIES FROM ROAD_ACCIDENT_DATA GROUP BY YEAR, MONTH, MONTH_NUMBER ORDER BY MONTH_NUMBER;</pre>	<table><thead><tr><th>year integer</th><th>month character var</th><th>total_casualties text</th></tr></thead><tbody><tr><td>2021</td><td>Jan</td><td>18.17 K</td></tr><tr><td>2021</td><td>Feb</td><td>14.65 K</td></tr><tr><td>2021</td><td>Mar</td><td>17.82 K</td></tr><tr><td>2021</td><td>Apr</td><td>17.34 K</td></tr><tr><td>2021</td><td>May</td><td>18.85 K</td></tr><tr><td>2021</td><td>Jun</td><td>18.73 K</td></tr><tr><td>2021</td><td>Jul</td><td>19.68 K</td></tr><tr><td>2021</td><td>Aug</td><td>18.80 K</td></tr><tr><td>2021</td><td>Sep</td><td>18.46 K</td></tr><tr><td>2021</td><td>Oct</td><td>20.11 K</td></tr><tr><td>2021</td><td>Nov</td><td>20.98 K</td></tr><tr><td>2021</td><td>Dec</td><td>18.58 K</td></tr><tr><td>2022</td><td>Jan</td><td>13.16 K</td></tr><tr><td>2022</td><td>Feb</td><td>14.80 K</td></tr><tr><td>2022</td><td>Mar</td><td>16.58 K</td></tr><tr><td>2022</td><td>Apr</td><td>15.77 K</td></tr><tr><td>2022</td><td>May</td><td>16.78 K</td></tr><tr><td>2022</td><td>Jun</td><td>17.23 K</td></tr><tr><td>2022</td><td>Jul</td><td>17.20 K</td></tr><tr><td>2022</td><td>Aug</td><td>16.80 K</td></tr><tr><td>2022</td><td>Sep</td><td>17.50 K</td></tr><tr><td>2022</td><td>Oct</td><td>18.29 K</td></tr><tr><td>2022</td><td>Nov</td><td>18.44 K</td></tr><tr><td>2022</td><td>Dec</td><td>13.20 K</td></tr></tbody></table>	year integer	month character var	total_casualties text	2021	Jan	18.17 K	2021	Feb	14.65 K	2021	Mar	17.82 K	2021	Apr	17.34 K	2021	May	18.85 K	2021	Jun	18.73 K	2021	Jul	19.68 K	2021	Aug	18.80 K	2021	Sep	18.46 K	2021	Oct	20.11 K	2021	Nov	20.98 K	2021	Dec	18.58 K	2022	Jan	13.16 K	2022	Feb	14.80 K	2022	Mar	16.58 K	2022	Apr	15.77 K	2022	May	16.78 K	2022	Jun	17.23 K	2022	Jul	17.20 K	2022	Aug	16.80 K	2022	Sep	17.50 K	2022	Oct	18.29 K	2022	Nov	18.44 K	2022	Dec	13.20 K	<div>CY Casualties Vs PY Casualties Monthly Trend</div> <table><thead><tr><th>Month</th><th>CY 2021</th><th>CY 2022</th></tr></thead><tbody><tr><td>Jan</td><td>18.17 K</td><td>13.16 K</td></tr><tr><td>Feb</td><td>14.65 K</td><td>14.80 K</td></tr><tr><td>Mar</td><td>17.82 K</td><td>16.58 K</td></tr><tr><td>Apr</td><td>17.34 K</td><td>15.77 K</td></tr><tr><td>May</td><td>18.85 K</td><td>16.78 K</td></tr><tr><td>Jun</td><td>18.73 K</td><td>17.23 K</td></tr><tr><td>Jul</td><td>19.68 K</td><td>17.20 K</td></tr><tr><td>Aug</td><td>18.80 K</td><td>16.80 K</td></tr><tr><td>Sep</td><td>18.46 K</td><td>17.50 K</td></tr><tr><td>Oct</td><td>20.11 K</td><td>18.29 K</td></tr><tr><td>Nov</td><td>20.98 K</td><td>18.44 K</td></tr><tr><td>Dec</td><td>18.58 K</td><td>13.20 K</td></tr></tbody></table>	Month	CY 2021	CY 2022	Jan	18.17 K	13.16 K	Feb	14.65 K	14.80 K	Mar	17.82 K	16.58 K	Apr	17.34 K	15.77 K	May	18.85 K	16.78 K	Jun	18.73 K	17.23 K	Jul	19.68 K	17.20 K	Aug	18.80 K	16.80 K	Sep	18.46 K	17.50 K	Oct	20.11 K	18.29 K	Nov	20.98 K	18.44 K	Dec	18.58 K	13.20 K	95% Match
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8	Casualties By Urban/ Rural	<pre>SELECT URBAN_OR_RURAL_AREA, ROUND(((CAST(SUM(NUMBER_OF_CASUALTIES) AS NUMERIC))/(SELECT SUM(NUMBER_OF_CASUALTIES) FROM ROAD_ACCIDENT_DATA WHERE YEAR = (SELECT MAX(YEAR) FROM ROAD_ACCIDENT_DATA)))*100, 2) ' %' AS PCT FROM ROAD_ACCIDENT_DATA WHERE YEAR = (SELECT MAX(YEAR) FROM ROAD_ACCIDENT_DATA) GROUP BY URBAN_OR_RURAL_AREA;</pre>	<table><tr><td>urban_or_rural_area character varying (50)</td><td>pct text</td></tr><tr><td>Rural</td><td>38.05 %</td></tr><tr><td>Urban</td><td>61.95 %</td></tr></table>	urban_or_rural_area character varying (50)	pct text	Rural	38.05 %	Urban	61.95 %	 <p>Casualties By Urban/Rural</p> <p>Rural 38.05%</p> <p>Urban 61.95%</p>	Exact Match						
urban_or_rural_area character varying (50)	pct text																
Rural	38.05 %																
Urban	61.95 %																
9	Casualties By Road Type	<pre>SELECT ROAD_TYPE, TOTAL_CASUALTIES ' K' AS TOTAL_CASUALTIES FROM (SELECT ROAD_TYPE, ROUND(((CAST(SUM(NUMBER_OF_CASUALTIES) AS NUMERIC)/1000)) AS TOTAL_CASUALTIES FROM ROAD_ACCIDENT_DATA WHERE YEAR = (SELECT MAX(YEAR) FROM ROAD_ACCIDENT_DATA) GROUP BY ROAD_TYPE ORDER BY TOTAL_CASUALTIES DESC) AS X;</pre>	<table><tr><td>road_type character varying (50)</td><td>total_casualties text</td></tr><tr><td>Single carriageway</td><td>145 K</td></tr><tr><td>Dual carriageway</td><td>32 K</td></tr><tr><td>Roundabout</td><td>13 K</td></tr><tr><td>One way street</td><td>3 K</td></tr><tr><td>Slip road</td><td>3 K</td></tr></table>	road_type character varying (50)	total_casualties text	Single carriageway	145 K	Dual carriageway	32 K	Roundabout	13 K	One way street	3 K	Slip road	3 K	 <p>Casualties By Road Type</p> <p>Single carriageway 145K</p> <p>Dual carriageway 32K</p> <p>Roundabout 13K</p> <p>One way street 3K</p> <p>Slip road 3K</p>	Exact Match
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Single carriageway	145 K																
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10	Casualties By Light Condition	<pre>SELECT CASE WHEN LIGHT_CONDITIONS = 'Daylight' THEN 'Day' ELSE 'Light' END AS LIGHT_CONDITION, ROUND(((CAST(SUM(NUMBER_OF_CASUALTIES) AS NUMERIC)/(SELECT SUM(NUMBER_OF_CASUALTIES) FROM ROAD_ACCIDENT_DATA WHERE YEAR = (SELECT MAX(YEAR) FROM ROAD_ACCIDENT_DATA)))*100, 2) ' %' AS PCT FROM ROAD_ACCIDENT_DATA WHERE YEAR = (SELECT MAX(YEAR) FROM ROAD_ACCIDENT_DATA) GROUP BY LIGHT_CONDITION;</pre>	<table><tr><td>light_condition text</td><td>pct text</td></tr><tr><td>Day</td><td>73.84 %</td></tr><tr><td>Light</td><td>26.16 %</td></tr></table>	light_condition text	pct text	Day	73.84 %	Light	26.16 %	 <p>Casualties By Light Condition</p> <p>Light 26.16%</p> <p>Day 73.84%</p>	Exact Match						
light_condition text	pct text																
Day	73.84 %																
Light	26.16 %																

Test Result:

Total Tests	10
Pass	10
Fail	00