**SQL Queries**

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| -- Q10. For each sector, rank the geographic areas by total number of 911 calls and show the response time for each area.  SELECT  geo\_ID,  CASE  WHEN geo\_ID = '482089992192' THEN 'area\_192'  WHEN geo\_ID = '484539990016' THEN 'area\_016'  WHEN geo\_ID = '484910006272' THEN 'area\_272'  WHEN geo\_ID = '484529995776' THEN 'area\_776'  ELSE 'Area\_Zero'  END AS GEO\_ID\_name,  COUNT(\*) AS area\_count,  AVG(response\_time) AS avg\_response\_time  FROM [dbo].[apd\_calls]  GROUP BY geo\_ID  ORDER BY 2; ----sort by any columns | | | | |
| **Sector** | **GEO\_ID** | **total\_911\_calls** | **avg\_response\_time** | **Area\_Rank** |
|  |  |  |  |  |
| Adam | 4.85E+11 | 66942 | 2392 | 1 |
| Airport | 4.85E+11 | 10006 | 406 | 1 |
| Baker | 4.85E+11 | 61231 | 1779 | 1 |
| Baker | NULL | 2 | 454 | 2 |
| Charlie | 4.85E+11 | 63765 | 2243 | 1 |
| Charlie | NULL | 1 | 956 | 2 |
| David | 4.85E+11 | 76010 | 1991 | 1 |
| David | 4.82E+11 | 63 | 2576 | 2 |
| David | NULL | 1 | 57 | 3 |
| Edward | 4.85E+11 | 83255 | 2908 | 1 |
| Frank | 4.85E+11 | 68641 | 2593 | 1 |
| George | 4.85E+11 | 31953 | 1471 | 1 |
| Henry | 4.85E+11 | 57237 | 2569 | 1 |
| Ida | 4.85E+11 | 57777 | 2045 | 1 |
| Other | 4.85E+11 | 0 | 710 | 1 |
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| --Q15. Which council districts have the highest average response times?  WITH cn\_district AS (  SELECT council\_district,  AVG(response\_time) AS avg\_response\_time  FROM [dbo].[apd\_calls]  GROUP BY council\_district  )  SELECT TOP 1  council\_district,  avg\_response\_time AS highest\_avg\_response\_time  FROM cn\_district  ORDER BY avg\_response\_time DESC;  --OR--  SELECT TOP 1  council\_district,  AVG(response\_time) AS avg\_response\_time  FROM [dbo].[apd\_calls]  GROUP BY council\_district  ORDER BY AVG(response\_time) DESC; | | | | |
| **council\_district** | **avg\_response\_time** | |  |  |
| 1 | 2609 |  |  |  |
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| 29. What is the average number of units dispatched to incidents based on the incident type?  SELECT incident\_type,  AVG(number\_of\_units\_arrived) AS avg\_units\_dispatched  FROM [dbo].[apd\_calls]  GROUP BY incident\_type  ORDER BY AVG(number\_of\_units\_arrived); | | | | |
| **incident\_type** | **avg\_units\_dispatched** | |  |  |
| Dispatched Incident | 1 |  |  |  |
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| What is the average response time for all incidents involving mental health issues?  SELECT  AVG(response\_time) AS avg\_response\_time\_mental\_health  FROM  apd\_calls  WHERE  mental\_health\_flag = 'Mental Health Incident'; | | | | |
| **avg\_response\_time\_mental\_health** | | |  |  |
| 2378 |  |  |  |  |
|  |  |  |  |  |
| Find the average response time for each incident type and compare it with the overall average response time  WITH incident\_avg AS (  SELECT  incident\_type,  AVG(CAST(response\_time AS BIGINT)) AS avg\_response\_time  FROM  apd\_calls  GROUP BY  incident\_type  ),  overall\_avg AS (  SELECT  AVG(CAST(response\_time AS BIGINT)) AS overall\_avg\_response\_time  FROM  apd\_calls  )  SELECT  ia.incident\_type,  ia.avg\_response\_time,  oa.overall\_avg\_response\_time  FROM  incident\_avg ia, overall\_avg oa; | | | | |
| **incident\_type** | **avg\_response\_time** | **overall\_avg\_response\_time** | |  |
| Dispatched Incident | 2254 | 2254 |  |  |
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| What is the total number of mental health-related incidents, and how has this changed over time?  SELECT  DATEPART(YEAR, response\_datetime) AS year,  DATEPART(MONTH, response\_datetime) AS month,  COUNT(\*) AS total\_mental\_health\_incidents  FROM  apd\_calls  WHERE  mental\_health\_flag = 'Mental Health Incident'  AND TRY\_CAST(response\_time AS INT) IS NOT NULL -- Ensures only numeric response\_time values  GROUP BY  DATEPART(YEAR, response\_datetime),  DATEPART(MONTH, response\_datetime)  ORDER BY  year, month; | | | | |
|  |  |  |  |  |
| **year** | **month** | **total\_mental\_health\_incidents** | |  |
| 2021 | 6 | 1225 |  |  |
| 2021 | 7 | 4219 |  |  |
| 2021 | 8 | 4342 |  |  |
| 2021 | 9 | 4129 |  |  |
| 2021 | 10 | 3634 |  |  |
| 2021 | 11 | 3428 |  |  |
| 2021 | 12 | 3516 |  |  |
| 2022 | 1 | 3082 |  |  |
| 2022 | 2 | 3018 |  |  |
| 2022 | 3 | 3579 |  |  |
| 2022 | 4 | 3311 |  |  |
| 2022 | 5 | 3706 |  |  |
| 2022 | 6 | 3513 |  |  |
| 2022 | 7 | 3419 |  |  |
| 2022 | 8 | 3348 |  |  |
| 2022 | 9 | 3365 |  |  |
| 2022 | 10 | 3395 |  |  |
| 2022 | 11 | 3043 |  |  |
| 2022 | 12 | 3069 |  |  |
| 2023 | 1 | 2921 |  |  |
| 2023 | 2 | 2743 |  |  |
| 2023 | 3 | 3114 |  |  |
| 2023 | 4 | 3011 |  |  |
| 2023 | 5 | 3198 |  |  |
| 2023 | 6 | 2936 |  |  |
| 2023 | 7 | 2792 |  |  |
| 2023 | 8 | 3001 |  |  |
| 2023 | 9 | 2833 |  |  |
| 2023 | 10 | 2560 |  |  |
| 2023 | 11 | 2337 |  |  |
| 2023 | 12 | 2421 |  |  |
| 2024 | 1 | 2383 |  |  |
| 2024 | 2 | 2582 |  |  |
| 2024 | 3 | 2843 |  |  |
| 2024 | 4 | 2734 |  |  |
| 2024 | 5 | 2913 |  |  |
| 2024 | 6 | 2827 |  |  |
| 2024 | 7 | 2787 |  |  |
| 2024 | 8 | 2740 |  |  |
| 2024 | 9 | 2899 |  |  |
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| How many incidents were initiated by officers in the field compared to those dispatched via 911 calls?  select  incident\_type,  count(\*) AS incident\_count  from  apd\_calls  group by  incident\_type; | | | | |
| **incident\_type** | **incident\_count** | |  |  |
| Dispatched Incident | 952828 |  |  |  |
|  |  |  |  |  |
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|  |  |  |  |  |
| 20. What are the top 3 most frequent final problem descriptions?  SELECT TOP 3 final\_problem\_description,  COUNT(final\_problem\_description) AS frequent\_final\_problem\_description  FROM apd\_calls  GROUP BY final\_problem\_description  ORDER BY frequent\_final\_problem\_description DESC; | | | | |
| final\_problem\_description | frequent\_final\_problem\_description | | |  |
| Trespass Urgent | 73749 |  |  |  |
| Disturbance Other | 55748 |  |  |  |
| Suspicious Person | 55344 |  |  |  |
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| 26. Which incidents have the longest on-scene time, and how does this correlate with the incident type or priority level?  SELECT  incident\_type,  priority\_level,  MAX(unit\_time\_on\_scene) AS max\_on\_scene\_time,  AVG(unit\_time\_on\_scene) AS avg\_on\_scene\_time  FROM apd\_calls  GROUP BY  incident\_type,  priority\_level  ORDER BY  max\_on\_scene\_time DESC; | | | | |
| **incident\_type** | **priority\_level** | **max\_on\_scene\_time** | **avg\_on\_scene\_time** |  |
| Dispatched Incident | Priority 0 | 2460453 | 12493 |  |
| Dispatched Incident | Priority 1 | 1348648 | 8508 |  |
| Dispatched Incident | Priority 3 | 1242710 | 4055 |  |
| Dispatched Incident | Priority 2 | 849306 | 4323 |  |
|  |  |  |  |  |
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|  |  |  |  |  |
| 28. How many incidents were initiated by officers in the field compared to those dispatched via 911 calls?  SELECT  incident\_type,  COUNT(\*) AS incident\_count  FROM apd\_calls  GROUP BY  incident\_type; | | | | |
| **incident\_type** | **incident\_count** | |  |  |
| Dispatched Incident | 952828 |  |  |  |