IT Ticket Analysis Report

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Objective Questions

1. **What is the total no. of attributes present in the data?**

   Ans: 16

Number of attributes In Tickets	10
Number of attributes In IT Agents	6
Total Number of Attributes	16

   Formula: =COUNTA

2. **Which columns have inconsistent or missing values, and what is the count of such values?**

   Ans: In the Tickets data there are some inconsistencies - In the Severity column the spelling of Major is Incorrectly given as Mayor.

   Used "Find and Replace" feature, and corrected this

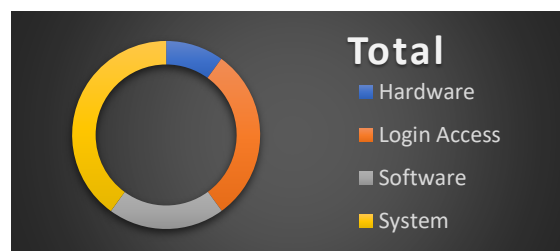3. **What is the average daily ticket volume over time?**

   Ans: The average daily ticket volume over time is 53.37

   Formula: =AVERAGE (B14:B1841)

4. **What is the distribution of ticket categories (e.g., Login Access, System, Software)?**

   Ans:

Request Category	Count of ID Ticket
Hardware	9.98%
Login Access	29.94%
Software	20.07%
System	40.00%

5. **How many tickets has each agent handled?**

   Ans

Agent ID	Count of ID Ticket
1	1969
2	1968
3	2021
4	1988
5	2000
6	1949
7	1935
8	1960
9	1949
10	1974
11	1956
12	1897
13	1856
14	1942
15	1991
16	1926
17	1961
18	1892
19	1984
20	1920
21	1889
22	1966
23	1915
24	2003
25	1906
26	1963
27	1968
28	1946
29	1931
30	1963
31	1987
32	1974
33	1958
34	1927
35	2007
36	1913
37	1931
38	1938
39	2026
40	1920
41	1966
42	1945

43	1897
44	1943
45	1929
46	1950
47	1933
48	2027
49	1890
50	1949
Grand Total	**97498**

6. **How can you extract the domain from the email addresses in the IT Agents sheet?**

   Ans: To extract the domain name from the email address by using right function, or text to column function.

   > **Formula: =LEFT(RIGHT(B1921,LEN(B1921)-FIND("@",B1921)), FIND(".",RIGHT(B1921,LEN(B1921)-FIND("@",B1921)-1)))**

7. **How can you find the full name of an agent given their Agent ID?**

   Ans: We can find the full name of an agent by using VLOOKUP and Xlookup function.

   > **Formula: =VLOOKUP(Objective!A1975,'IT Agents'!$A$1:$B$51,2,0)**

8. **What is the count of each issue type (e.g., IT Error, IT Request)?**

   Ans: The Count of each issue type can be calculated using the Count function

Issue type	Count of ID Ticket
IT Error	24278
IT Request	73220

9. **What is the daily average resolution time for tickets?**

   Ans: Used pivot table to get the daily average resolution time and then used the below formula to calculate the average resolution time in days.

Average Resolution time	4.55

   > **Formula: =AVERAGE(B2047:B3873)**

10. How has the volume of tickets changed over time?

Ans:

Row Labels	Count of ID Ticket
2016	13051
2017	14915
2018	18954
2019	21490
2020	29088

11. What is the average age of the IT agents?

Ans: The average age of an IT agent is **39.46**

Formula: =AVERAGE('IT Agents'!H2:H51)

12. Is there a correlation between the severity of issues and the resolution time?

Ans:

Formula: =CORREL(Tickets!L2:L97499,Tickets!I2:I97499)

Row Labels	Sum of Resolution Time (Days)
0 - Unclassified	1024
1 - Minor	7757
2 - Normal	413457
3 - Mayor	18899
4 - Urgent	2786
Grand Total	443923

13. How many categorical columns are there in the data? [Search about categorical and continuous data, and try to answer this question]

Ans:

Categorical vs. Continuous Columns in the Data

Categorical Data: Represents distinct groups or categories (e.g., Request Category, Severity).

Continuous Data: Represents measurable values with a range (e.g., Resolution Time, Year of Birth).
Tickets Sheet:
Categorical: 8 (ID Ticket, Employee ID, Agent ID, Request Category, Issue Type, Severity, Priority, Satisfaction Rate)
Continuous: 2 (Fecha, Resolution Time)
IT Agents Sheet:
Categorical: 4 (Agent ID, Full Name, Email, Month of Birth)
Continuous: 2 (Year of Birth, Day of Birth)