

# Tasks

Learners have to develop a dashboard to support the answers to the following questions.

## Objective Questions:

1. What is the total no. of tables present in the data?
2. What is the total no. of attributes present in the data?
3. The data consists of some inconsistent and missing values so ensure that the data used for further analysis is cleaned.
4. What is the change in daily call volume day by day and also find the average daily call volume.
5. Which months experienced the highest and lowest call volumes?
6. What is the total operational cost for that month?
7. What is the average number of calls handled per agent per day?
8. How many repeat callers are there, and what percentage of total calls do they represent?
9. What are the total sales generated by the call centre for each product category?
10. How many calls were made for each user ID and guru ID?
11. What is the correlation between call duration and customer satisfaction?
12. Which guru has the highest and lowest customer satisfaction scores?
13. What is the average customer satisfaction score by month?
14. How many categorical columns are there in the data? [Search about categorical and continuous data, and try to answer this question]

## Subjective Question:

1. Should the investment be used to hire more agents, improve training programs, or upgrade call center technology?

2. What are the potential risks of each investment option (hiring, training, technology upgrades), and how can they be mitigated?  
Name the chart/spreadsheet function you will use for solving the problem.
3. How does AstroSage's call center performance compare to AstroGuru's average call volume, customer satisfaction, and agent performance?  
Will you use any aggregation function or a visualization here to solve the problem?
4. How can the call center improve its handling of peak call periods to ensure high customer satisfaction?  
Mention the functionality you will use for giving the suggestions, will it be any aggregated function or a visualization?
5. Based on historical data, what strategic initiatives should be prioritized to improve efficiency and customer satisfaction?
6. What can be the key factors contributing to high customer satisfaction scores, and how can these be leveraged to improve overall performance?  
What is the basis for the suggestions? And mention how you decided if the satisfaction score affects the ratings.
7. How should the call center balance the workload among agents to ensure optimal performance and avoid burnout?  
Mention your approach and spreadsheet function for the answer.
8. What new technologies or tools could be implemented to enhance call center operations and customer service?
9. What metrics should be included in the final dashboard to comprehensively view call center performance and guide investment decisions?
10. How would you allocate a 1 crore rupee investment to optimize operational efficiency, enhance customer satisfaction, and boost profitability, and what analysis-based recommendations would you offer to support this?  
[you have to give bullet pointers to answer this question]

**Ensure that you put the slicers for choosing the country and year to observe the dashboard since the management will have a long discussion that can go on for weeks.**

**Note: The dashboard would be more interactive and user-friendly, allowing management to explore data in detail and make informed decisions.**