

Problem Statement

Dashboard 1: Home

Total Number of Calls: We need to track and display the total number of calls received by our call centre over a specific period.

```
3 • SELECT COUNT(DISTINCT id) as Total_Number_of_Calls from call_centre;
4
5 |
```

Result Grid			Filter Rows:	<input type="text"/>	Export:		Wrap Cell Content:	
Total_Number_of_Calls								
32941								

Total call duration in hours: It is crucial to understand the total amount of time our call centre staff spend on each call, this can help us in resource allocation and capacity planning.

```
7 • SELECT SUM(Call_Duration_In_Minutes) / 60 AS Total_call_duration_in_hours from call_centre;
```

Result Grid			Filter Rows:	<input type="text"/>	Export:		Wrap Cell Content:	
Total_call_duration_in_hours								
13737.0333								

Total call duration in minutes: Similar to the total call duration in hours, this KPI provides the total call time but in minutes, offering a more granular view of call durations.

```
7 • SELECT SUM(Call_Duration_In_Minutes) AS Total_call_duration_in_minutes from call_centre;
```

Result Grid			Filter Rows:	<input type="text"/>	Export:		Wrap Cell Content:	
Total_call_duration_in_minutes								
824222								

Average call duration in minutes: To assess the efficiency of our agents, we need to calculate and display the average call duration in minutes. This metric can help identify trends in call handling.

```

13      -- Average call duration in minutes
14
15 •    SELECT avg(Call_Duration_In_Minutes) As Average_call_duration_in_minutes from call_centre;

```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
Average_call_duration_in_minutes	25.0212			

Response time percentage: Response time is a critical factor in customer satisfaction. This KPI should display the percentage of calls answered within a predefined time frame, helping us gauge our ability to provide prompt service.

```

19 •    SELECT
20      Response_Time,
21      ROUND(((COUNT(*) * 100.0 / (SELECT COUNT(*) FROM call_centre)), 2) AS percentage_response_time
22    FROM
23      call_centre
24    GROUP BY
25      Response_Time;
26

```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
Response_Time	percentage_response_time			
Within SLA	62.61			
Above SLA	12.65			
Below SLA	24.74			

Chart Requirements:

Total Call by Day (Column chart): Display a column chart that shows the total number of calls on each day over a specified time period.

```

29 •    SELECT DAYNAME(Call_Timestamp) AS Call_day, COUNT(DISTINCT id) AS Total_calls FROM call_centre GROUP BY DAYNAME(Call_Timestamp);

```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
Call_day	Total_calls			
Friday	5570			
Monday	4334			
Saturday	4403			
Sunday	4296			
Thursday	5481			
Tuesday	4408			
Wednesday	4449			


Total calls by state: Create a clustered column chart that visualises the total number of calls received from different states or regions.


```

33 • SELECT State, COUNT(DISTINCT id) AS Total_Calls FROM call_centre
34     GROUP BY State;

```


Result Grid






Filter Rows:

Export:



Wrap Cell Content:



State	Total_Calls
Alabama	738
Alaska	146
Arizona	737
Arkansas	204
California	3631
Colorado	742
Connecticut	408
Delaware	128
District of Columbia	1110
Florida	2834
Georgia	926
Hawaii	149
Idaho	174
Illinois	848
Indiana	736
Iowa	366
Kansas	467
Kentucky	411
Louisiana	627



Top reason for calls (Tree map): Implement a tree map chart to display the top reasons for calls. Each box in the tree map represents a call reason.


```


38 • SELECT Reason, COUNT(DISTINCT id) AS Total_Calls FROM call_centre
39     GROUP BY Reason

```

Result Grid



Filter Rows:

Export:


Wrap Cell Content:


	Reason	Total_Calls
▶	Billing Question	23462
	Payments	4749
	Service Outage	4730

Total calls by channel (Donut chart): Create a donut chart to showcase the distribution of calls by different communication channels.

```

41
42 -- Top calls by channel
43
44 • SELECT Channel, COUNT(DISTINCT id) AS Total_Calls FROM call_centre
45     GROUP BY Channel
46     ORDER BY Channel ASC;

```

Result Grid		
	Filter Rows:	Export: Wrap Cell Content:
Channel	Total_Calls	
Call-Center	10639	
Chatbot	8256	
Email	7470	
Web	6576	

Total calls by sentiment (Column chart): Utilise a column chart to illustrate the distribution of calls by sentiment (e.g., positive, negative, neutral).

```

49
50 • SELECT Sentiment, COUNT(DISTINCT id) AS Total_Calls FROM call_centre
51     GROUP BY Sentiment
52     ORDER BY Sentiment ASC;

```

Result Grid		
	Filter Rows:	Export: Wrap Cell Content:
Sentiment	Total_Calls	
Negative	11063	
Neutral	8754	
Positive	3928	
Very Negative	6026	
Very Positive	3170	

Total calls by call centre (Bar chart): Create a bar chart that presents the total number of calls handled by each call centre or department.

```

56 • SELECT Call_Centres_City, COUNT(DISTINCT id) AS Total_Calls FROM call_centre
57     GROUP BY Call_Centres_City;

```

Result Grid		
	Filter Rows:	Export: Wrap Cell Content:
Call_Centres_City	Total_Calls	
Baltimore	11012	
Chicago	5419	
Denver	2776	
Los Angeles	13734	