Guruji Astro

Introduction:
Welcome to the first-round interview assignment for the Data Analyst Intern position at Guruji Astro. In this assignment, you will be working with a dataset that contains call center performance data. Your task is to perform data analysis and provide insights based on the provided dataset.

Tasks:
Please perform the following tasks using the provided dataset and provide your analysis and insights in a concise document or presentation.

Task 1: Data Exploration
1. Load the dataset into your preferred data analysis tool (e.g., Python, R, Excel).
2. Check for missing values in the dataset and handle them appropriately.
3. Provide summary statistics for key numeric columns (e.g., Charge, TalkTime).
4. Visualize the distribution of call charges using a histogram.

Task 2: Call Center Performance Metrics
5. Calculate the average TalkTime for different call activities (Activity column).
6. Determine the most common source of calls (Source column)
7. Calculate the total earnings and spending for both users and masters.
8. Analyze the relationship between TalkTime and Charge.

Task 3: Call Handling Analysis
9. Calculate the average time it takes for calls to be connected (ConnectTime - DialTime).
10. Identify the most common reason for call disconnection (UnconnectTime - ConnectTime).
11. Analyze the HangUpTime patterns and identify any trends.

Task 4: Order and Refund Analysis
12. Determine the order status distribution for calls.
13. Calculate the total refund amount and identify the refund status distribution.

Task 5: Insights and Recommendations
14. Based on your analysis, provide insights into call center performance and any actionable recommendations for improving call handling, user satisfaction, or earnings.

Task 6: Data Visualization

7-aAdditional Visualizations

- Create additional visualizations to showcase your data visualization skills.
- Please create a line chart showing the trend in call charges over time.
- Create a scatter plot to analyze the relationship between TalkTime and UserSpend.

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Task 7: Interpretation
After generating the visualizations, interpret the findings.

- What insights can you draw from the histogram of call charges?
- Based on the line chart, do you see any seasonal patterns in call charges?
- What does the scatter plot tell us about the relationship between TalkTime and UserSpend?

Submission:
Please submit your analysis in the form of a concise document or presentation (PDF or PowerPoint format) that includes:
- Your name and contact information.
- A clear and concise explanation of your findings for each task.
- Visualizations (charts, graphs) to support your analysis where applicable.
- Your insights and recommendations for optimizing call center operations.

Deadline:
The deadline for submitting your completed assignment is 2 days. Please email your assignment to hr@gurucool.co.in.

Evaluation:
Your assignment will be evaluated based on the quality of your analysis, your ability to communicate your findings clearly, the accuracy of your visualizations, and the overall presentation of your document or presentation.

We look forward to reviewing your analysis and discussing it further during the interview process. If you have any questions or need clarification on any task, please feel free to reach out to us.
Here is the attached data set:
https://drive.google.com/file/d/1whoSp5NEdmj5AdXcGj7eTSrYyf6k8O4s/view?usp=drive_link

Personality Test
https://forms.gle/EKxcuPYPvxk3WSAe6

Data Analyst Assignment
https://forms.gle/GUA4NtUoRexd5FLLA