



PLACEMENTDOST

Note:

Please be advised that these assessment inquiries are designed to accommodate interns with diverse skill levels, ranging from novices to seasoned analysts. Should you encounter any challenging questions, you are encouraged to seek solutions independently or reach out to us for assistance at intern@placementdost.com. Best wishes for success in completing the assessment!

1. Load the Customer Flight Activity, Customer Loyalty History, and Calendar tables into R. Inspect the structure of each table.
2. Handle missing values, duplicates, and outliers in the Customer Flight Activity and Customer Loyalty History tables.
3. Conduct EDA to analyze the distribution of Total Flights, Distance, and Points Accumulated. Visualize the trends over the years.
4. Create a new variable in the Customer Loyalty History table representing the ratio of Points Redeemed to Points Accumulated.
5. Calculate the average CLV for customers in each Enrollment Type.
6. Analyze the temporal trends in Total Flights and CLV over the given period using the Calendar table.
7. Merge the Customer Flight Activity and Customer Loyalty History tables to create a comprehensive dataset.
8. Explore the distribution of Marital Status and Loyalty Card status among customers.
9. Examine the correlation between Salary and CLV. Visualize the correlation matrix.
10. Aggregate Total Flights and Points Redeemed at a monthly level and analyze the trends.
11. Create a geographical map showing the distribution of customers based on their City.
12. Generate a heatmap to visualize the relationship between Enrollment Type and Marital Status.
13. Perform a hypothesis test to compare the CLV means between customers with different levels of education.

14. Use time series forecasting techniques to predict the Total Flights for the next year.
15. Apply clustering algorithms to segment customers based on their spending patterns (CLV).
16. Conduct an analysis of variance (ANOVA) to assess the impact of Enrollment Type on the Points Redeemed.
17. Build a regression model to predict CLV based on relevant features.
18. Reshape the data to a long format for better visualization and analysis.
19. Create an interactive dashboard that displays key insights from the dataset.
20. Craft a data story summarizing the key findings, insights, and recommendations based on the analysis.