

Here are **maximum EDA questions** for your telecom churn dataset:

1. Data Overview & Cleaning

1. What is the shape (number of rows and columns) of the dataset?
2. What are the data types of each column?
3. Are there any missing values in the dataset?
4. How should missing values be handled?
5. Are there any duplicate records?
6. What is the distribution of categorical and numerical features?
7. Are there any inconsistencies in categorical variables (e.g., typos, extra spaces)?
8. Are there any outliers in numerical columns like MonthlyCharges and TotalCharges?

2. Descriptive Statistics

9. What are the mean, median, min, max, and standard deviation of numerical features?
10. How is the distribution of tenure among customers?
11. How are MonthlyCharges and TotalCharges distributed?
12. How many customers belong to each category of Contract?
13. What is the percentage of senior citizens in the dataset?
14. What is the proportion of customers with and without partners?
15. How many customers use each InternetService type?

3. Churn Analysis

16. What is the overall churn rate in the dataset?
17. How does churn vary across different Contract types?
18. Do customers with PaperlessBilling churn more often?
19. Is there a difference in churn rate between male and female customers?
20. How does churn correlate with MonthlyCharges and TotalCharges?
21. What is the average tenure of churned vs. non-churned customers?
22. Do customers with TechSupport churn less frequently?
23. How does StreamingTV and StreamingMovies impact churn?
24. Does having MultipleLines affect churn?
25. Which PaymentMethod has the highest churn rate?
26. Are customers with Dependents less likely to churn?
27. How does churn differ among SeniorCitizen and non-senior customers?

4. Correlation & Relationships

- 28. What are the correlations between numerical features?
- 29. Which feature has the highest correlation with churn?
- 30. Is there a relationship between tenure and TotalCharges?
- 31. How does InternetService affect MonthlyCharges?
- 32. Are PaperlessBilling customers paying higher MonthlyCharges?
- 33. Do customers with longer tenure tend to pay more in TotalCharges?
- 34. Does PaymentMethod affect MonthlyCharges?
- 35. Are there customers with TotalCharges very low despite long tenure?

5. Customer Segmentation & Trends

- 36. What are the top 3 most common customer profiles (e.g., gender, contract, InternetService)?
- 37. What is the most common contract type among customers?
- 38. Which InternetService type has the highest MonthlyCharges?
- 39. Do customers who use OnlineBackup and DeviceProtection churn less?
- 40. Are Partner and Dependents related to customer longevity (tenure)?
- 41. Are customers with higher MonthlyCharges more likely to be in shorter contracts?
- 42. Which StreamingTV or StreamingMovies customers pay the highest?
- 43. What is the most common payment method among churned customers?

6. Advanced Analysis

- 44. Can we create customer segments based on tenure, MonthlyCharges, and TotalCharges?
- 45. Can a machine learning model predict churn using these features?
- 46. What are the most important predictors of churn based on feature importance?
- 47. How does churn vary by customer age (SeniorCitizen feature)?
- 48. What is the tenure distribution for customers with One-year and Two-year contracts?
- 49. How does churn vary among different states (if geographic data is available)?
- 50. What are the top 5 insights from this dataset for business action?

These questions will help **analyze, visualize, and extract insights** from the dataset. Let me know if you need further refinements! 🚀