8 Steps

# MOST ASKED INTERVIEW QUESTIONS FOR DATA ANALYTICS







- 1. What is the difference between INNER JOIN and OUTER JOIN?
- 2. How do you find duplicate records in a table?
- 3. What are window functions, and how do they work?
- 4. Write a SQL query to find the second-highest salary in a table.
- 5. Explain the difference between WHERE and HAVING clauses.
- 6. What is the difference between UNION and UNION ALL?
- 7. How do you optimize a slow SQL query?
- 8. What is a Common Table Expression (CTE), and when would you use it?
- 9. How do you handle NULL values in SQL queries?
- 10. What is the difference between a clustered and non-clustered index?



#### **POWER BI**

- 1. What are the key components of Power BI?
- 2. Explain the difference between a calculated column and a measure in Power BI.
- 3. What are DAX functions, and why are they important?
- 4. How do you create relationships between tables in Power BI?
- 5. What is Power Query, and how is it used in Power BI?
- 6. How would you optimize the performance of a Power BI report?
- 7. Explain the difference between DirectQuery and Import mode.
- 8. How do you use bookmarks in Power BI?
- 9. What are row-level security (RLS) and its implementation in Power BI?
- 10. How would you handle large datasets in Power BI?



# **TABLEAU**

- 1. What are dimensions and measures in Tableau?
- 2. Explain the difference between a live connection and an extract.
- 3. How do you perform data blending in Tableau?
- 4. What is the difference between filters and parameters?
- 5. Explain the concept of a dual-axis chart in Tableau.
- 6. How do you create calculated fields in Tableau?
- 7. What are the different types of joins available in Tableau?
- 8. How does Tableau handle null values?
- 9. What are level of detail (LOD) expressions, and when would you use them?
- 10. How do you improve dashboard performance in Tableau?



#### **EXCEL**

- 1. What are the most commonly used Excel functions for data analysis?
- 2. How do you use Pivot Tables to summarize data?
- 3. Explain the difference between VLOOKUP, HLOOKUP, and INDEX-MATCH.
- 4. What is conditional formatting, and how can it be used in data analysis?
- 5. How do you remove duplicate values in Excel?
- 6. What is the difference between absolute, relative, and mixed cell references?
- 7. How do you use data validation in Excel?
- 8. What are Macros in Excel, and how can they be used for automation?
- 9. How do you handle large datasets efficiently in Excel?
- 10. How do you use the IF function with multiple conditions?



# **STATISTICS**

- 1. What is the difference between descriptive and inferential statistics?
- 2. Explain the concept of probability distributions.
- 3. What is p-value, and how do you interpret it?
- 4. What is the difference between mean, median, and mode?
- 5. What is correlation, and how does it differ from causation?
- 6. What is standard deviation, and why is it important?
- 7. What is hypothesis testing, and what are Type I and Type II errors?
- 8. What is the Central Limit Theorem, and why is it important in statistics?
- 9. Explain the difference between a normal distribution and a skewed distribution.
- 10. What is regression analysis, and when would you use it?



#### **PYTHON**

- 1. What are the key differences between lists, tuples, and dictionaries in Python?
- 2. What are Pandas and NumPy, and how are they used in data analysis?
- 3. How do you handle missing data in Python?
- 4. What is the difference between a for loop and a while loop?
- 5. Explain the purpose of the apply() function in Pandas.
- 6. How do you read and write data using Pandas?
- 7. What is the difference between shallow copy and deep copy?
- 8. How do you filter a DataFrame in Pandas?
- 9. What is the difference between map(), filter(), and reduce()?
- 10. How do you merge two DataFrames in Pandas?



# SOFT SKILLS & BEHAVIORAL QUESTIONS

- 1. Tell me about a time you worked on a challenging data project.
- 2. How do you explain complex data insights to non-technical stakeholders?
- 3. Describe a time when you used data to make a business decision.
- 4. How do you handle tight deadlines in a datadriven project?
- 5. Tell me about a time you made a mistake in your analysis. How did you fix it?
- 6. What do you do if you find inconsistencies in a dataset?
- 7. How do you prioritize multiple projects with tight deadlines?
- 8. Can you describe a time when your insights led to a significant impact?
- 9. How do you approach learning new data tools or technologies?
- 10. How do you ensure data accuracy in your work?





# **BONUS TIPS**

- Practice SQL queries regularly on platforms like LeetCode and StrataScratch.
- Work on real-world projects to showcase your problem-solving skills.
- Prepare for behavioral questions using the STAR method.
- Stay updated on industry trends and commonly used tools.
- Network with professionals and seek mentorship from experienced data analysts.

