

Data Analyst Interview Questions

1. What are the most important Excel functions you use for data analysis, and why?
2. Describe a situation where you used PivotTables to derive insights.
3. How do you handle missing or inconsistent data in Excel?
4. Explain VLOOKUP, HLOOKUP, INDEX-MATCH, and XLOOKUP differences.
5. Describe a time you used conditional formatting meaningfully.
6. How would you clean a messy dataset in Excel?
7. Explain JOIN types in SQL with examples.
8. How do you optimize SQL queries?
9. Describe a project where SQL was essential.
10. How do you use GROUP BY in SQL?
11. How do you validate SQL query accuracy?
12. When would you use subqueries or window functions?
13. How do you choose statistical methods for analysis?
14. Explain variance and standard deviation.
15. Describe a time statistical testing influenced a decision.
16. Explain correlation vs. causation with an example.
17. What does skewness tell you about data?
18. Explain confidence intervals to a non-technical audience.
19. Which Python libraries do you use for data analysis and why?
20. Describe a Python automation you built.
21. How do you handle missing values in pandas?
22. Differences between lists, tuples, dictionaries.
23. How do you visualize data in Python?
24. Describe a time you optimized a slow Python script.

25. What makes a Tableau dashboard effective?
26. Explain dimensions vs. measures.
27. Describe a Tableau project that impacted business decisions.
28. How do you ensure user-friendly dashboards?
29. Explain calculated fields with examples.
30. How do you resolve Tableau performance issues?
31. What R packages do you use most often?
32. Explain data frame vs. vector vs. list.
33. Describe an analysis project done in R.
34. How do you use dplyr for data cleaning?
35. Why is ggplot2 powerful for visualization?
36. When is R more suitable than Python or Excel?
37. Describe your approach to a new dataset and business question.
38. How do you ensure data quality before analysis?
39. Describe a challenging dataset you've worked with.
40. How do you identify key metrics for a problem?
41. Describe a time your insights contradicted assumptions.
42. How do you ensure reproducibility in analysis?
43. Describe a situation when you learned a new tool quickly.
44. Share an example of discovering unexpected insights.
45. What's the most complex analysis you've simplified?
46. Describe a mistake in analysis and what you learned.
47. How do you prioritize tasks with multiple teams involved?
48. Give an example of cross-team collaboration on a data project.
49. How do you present findings to non-technical audiences?
50. Describe a time storytelling enhanced your insight delivery.

51. How do you handle vague analytical requests?
52. How do you balance accuracy with speed?
53. What emerging analytics tools excite you?
54. How do you stay updated with evolving data tools?
55. What is your long-term vision as a data analyst?