Why should we hire you as a data analyst?



I can write SQL, Python, R and know how to use Tableau.



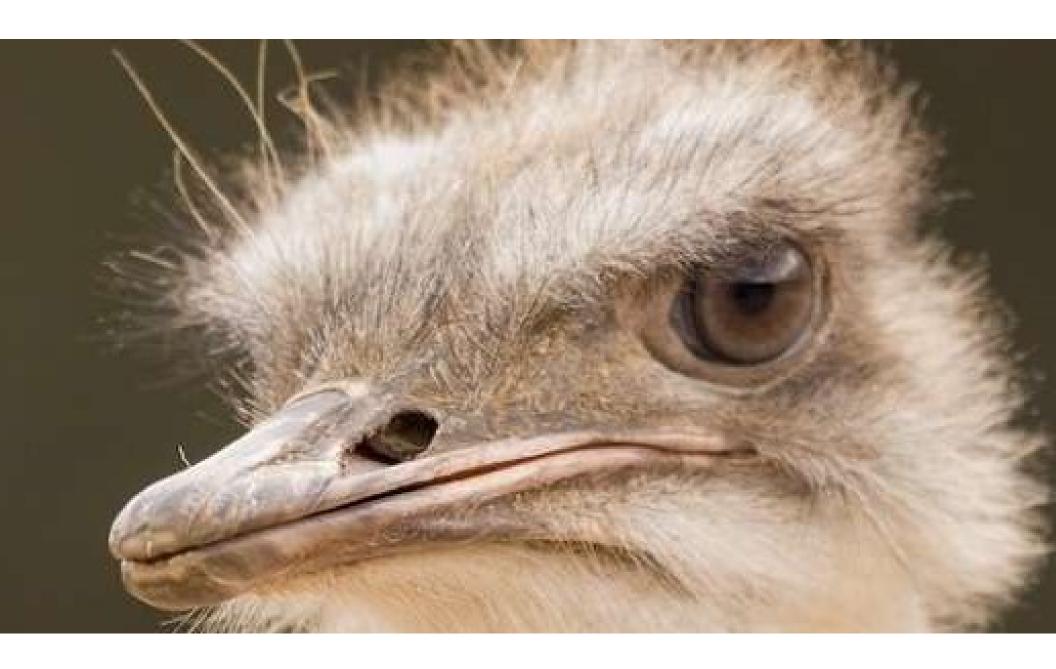


The Data Analyst Interview

What to Expect and What To Say

Presented by

Michael Valeri, Data Literacy Consultant michaelvaleri.com

















6

What four things do you need to "sell" during an analytics interview?

During the interview, you'll be screened for (in order of importance):

- 1. You're a good cultural fit
- 2. Your understanding of the job responsibilities
- 3. Your attitude in approaching the job responsibilities
- 4. Your experience executing on those responsibilities

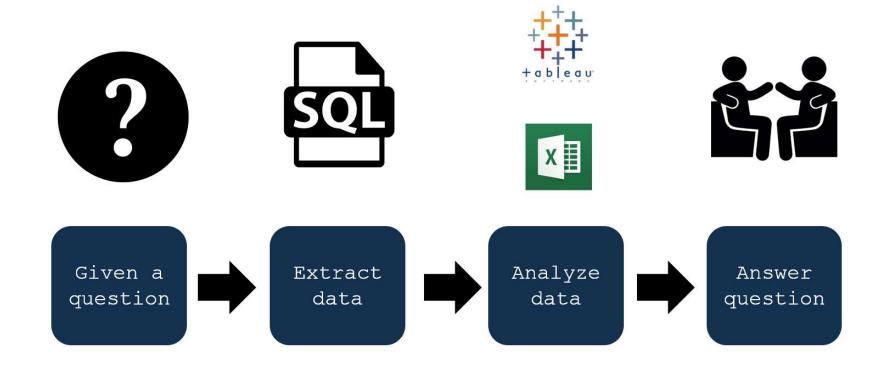
What does it mean to be a good cultural fit?

Simply put, are you someone they'd want to work with.

Take 2-3 minutes to discuss with people around you the personality characteristics of your ideal coworker.



What are the job responsibilities of a Data Analyst?



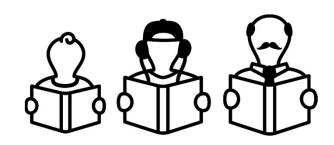
8

9

What's the best attitude for approaching these responsibilities*? (Look at Amazon Leadership Principles online for more...)



Customer Focused



Life Long Learner



Have Backbone

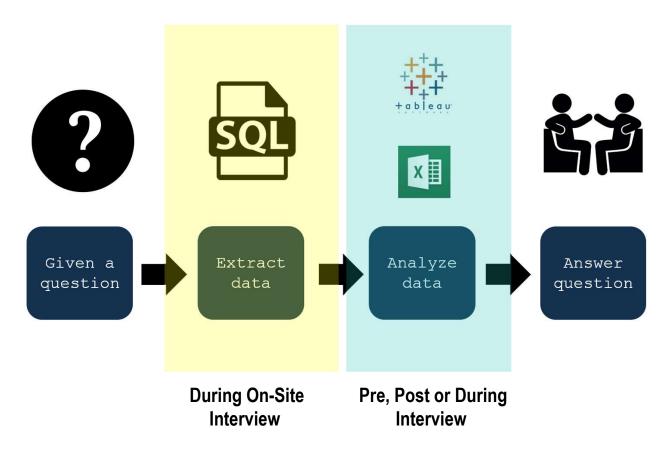


Transparent



Bias For Action

How will you be tested on the execution of those responsibilities?



What questions will I be asked about SQL?

SETUP

- You'll be given a table schema for each question (sometimes two)
- Example data might not be provided
- You'll be expected to write an SQL query for each question

QUESTIONS TO EXPECT

- What's the most complicated thing you've done in SQL?
- How to write a join, and reasoning behind join type (left vs. inner)
- Difference between HAVING vs. WHERE clause and when to use
- What is a table partition and why would you use?
- How do you remove duplicates from data?
- How do you rank something?
- How to filter our NULL values
- Writing Subqueries or CTEs (Multi Step Question)

SALES SCHEMA	
field/column	data type
date	timestamp
convenience store	text
store	integer
county number	county number
county	text
category	text
category name	text
vendor_no	text
vendor	text
item	integer
description	text
pack	integer
liter size	integer
state_btl_cost	money
btl price	money
bottle qty	integer
total	numeric(10,2)

How should I approach answering these SQL questions?

- Step 1: Draw a picture of the result output of the SQL query
- Step 2: Architect the SQL query that makes that result output
- Step 3: When you don't know the syntax, make an assumption or write your best guess...



Example Question: Give me the rank of each traffic channel during Q4 by total visits...

Step 1: Draw a
 picture of the result
 output of the SQL
 query

table schema	
traffic_data	
trajjic_data	
field	data_type
channel_id	int
channel_name	varchar
visits	int
visit_date	timestamp

Example Question: Give me the rank of each traffic channel during Q4 by total visits...

 Step 2: Architect the SQL query that makes that result output

table schema	
traffic_data	
field	data_type
channel_id	int
channel_name	varchar
visits	int
visit_date	timestamp

Example Question: Give me the rank of each traffic channel during Q4 by total visits...

 Step 3: When you don't know the syntax, make an assumption or write your best guess...

table schema	
traffic_data	
field	data_type
channel_id	int
channel_name	varchar
visits	int
visit_date	timestamp

SQL Worst Case Scenario: GoDaddy Interview



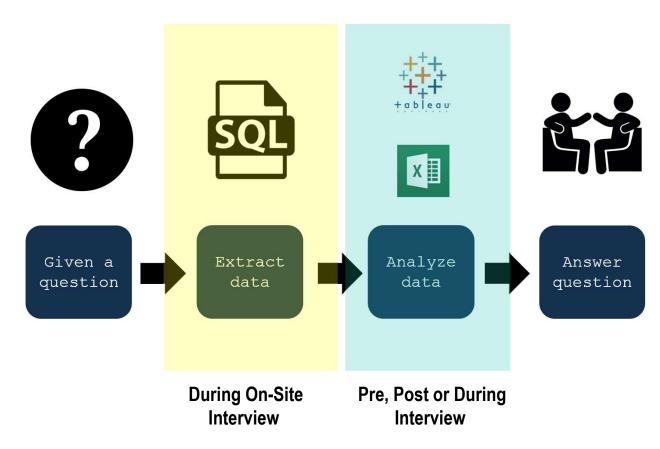
Don, Interviewer



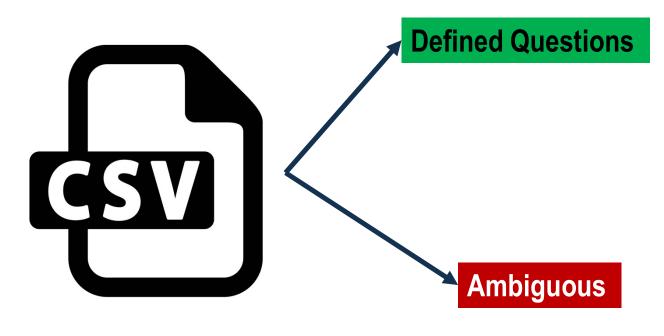
Me, Interviewee



How will you be tested on the execution of those responsibilities?



What analytics assignment might you get pre/post interview?



- Tell us the impact of our sales promotion on XYZ dates. Was it effective?
- Tell us the best performing traffic channels for our website.
 Why are they performing so well?
- Tell us which test variant performed better. Is it significant?
- •Tell us about this data set. What do you think we should know?

How should I approach a **Defined Questions** analytics assignment?

Defined Questions

- Tell us the impact of our sales promotion on XYZ dates. Was it effective?
- Tell us best performing traffic channels for our website. Why are they performing so well?
- Tell us which test variant performed better. Is it significant?

- Answer the question in a executive summary
 - No longer than 2 paragraphs
 - Should include no more than 2 visualizations that supplement the answer to the question
 - Should include opinion on next steps and/or additional questions to ask of future data. ← Value Add
 - Include Appendix of all analysis that lead to your conclusion

How should I approach an Ambiguous analytics assignment?

Ambiguous

Tell us about this data set. What do you think we should know?

- If data is related to job
 - Look over job description for your responsibilities
 - Understand company's business model
 - Make broad strokes, then whittle down data until something interesting appears. – The 5 W's

What analytics questions might you get during the interview?

- 1. Describe an analysis that you've...
 - Enjoyed
 - Did Not Enjoy
- 2. Describe how you approach an analysis
- 3. Describe your process for determining data integrity...

