Business Intelligence for practitioners

22 JANUARY 2019 / 4 MIN READ / DATA AT WORK, STARTUPS, BUSINESS INTELLIGENCE

4 Case Study Questions for Interviewing Data Analysts at a Startup

by Anthony Thong Do

1. Home Furnitures is the top selling category

Skin Care has lowerst quantity (counting orders of all statuses). The gap between these two categories grow over time while other categories'sales increase at roughly the same rates. This means customers gradually come to this e-commerce site for Home Furnitures, not Skin care products.

At Holistics, we understand the value of data in making business decisions as a Business Intelligence (BI) platform, and hiring the right data team is one of the key elements to get you there.

To get hired for a tech product startup, we all know just doing reporting alone won't distinguish a potential data analyst, a good data analyst is one who has an absolute passion for data. He/she has a strong understanding of the business/product you are running, and will be always seeking meaningful insights to help the team make better decisions.

That's the reason why we usually look for these characteristics below when interviewing data analyst candidates:

- Ability to adapt to a new domain quickly
- Ability to work independently to investigate and mine for interesting insights
- Product and business growth Mindset
  Technical skills

In this article, I'll be sharing with you some of our case studies that reveal the potential of data analyst candidates we've hired in the last few months.
For a list of questions to ask, you can refer to this link
https://www.holistics.io/blog/how-to-interview-a-data-analyst-candidate/

1. Analyze a Dataset

Question

- Give us top 5–10 interesting insights you could find from this dataset

Give them a dataset, and let them use your tool or any tools they are familiar with to analyze it. For example, we use our own product cloudpivot.co, a quick BI tool to visualize data which also includes some sample datasets people can relate to:

- Fifa 19
- E-commerce

Expectations

- Communication: The first thing they should do is ask the interviewers to clarify the dataset and the problems to be solved, instead of just jumping into answering the question right away.
- Strong industry knowledge, or an indication of how quickly they can adapt to a new domain.
- The insights here should not only be about charts, but also the explanation behind what we should investigate more of, or make decisions on.

Let's take a look at some insights from our data analyst's work exploring an e-commerce dataset.

1. Home Furnitures is the top selling category

Skin Care has lowerst quantity (counting orders of all statuses). The gap between these two categories grow over time while other categories'sales increase at roughly the same rates. This means customers gradually come to this e-commerce site for Home Furnitures, not Skin care products.

5. Singaporean customers are not happy with high-price products

The average price of cancelled orders is higher than that of sucessful orders. In fact, this is the case for 4 out of 6 parent categories -> this may indicate some problems with products of higher price ranges in those categories.

2. Product Mindset

In a product startup, the data analyst must also have the ability to understand the product as well as measure the success of the product.

Question

- How would you improve our feature X (Search/Login/Dashboard…) using data?

Expectations

- Show effort for independent research, and declaring some assumptions on what makes a feature good/bad.

- Ask/create a user flow for the feature, listing down all the possible steps that users should take to achieve that result. Let them assume they can get all the data they want, and ask what they would measure and how they will make decisions from there.

- Provide data and current insights to understand how often users actually use the feature and assess how they evaluate if it's still worth working on.

3. Business Sense

Data analysts need to be responsible for not only Product, but also Sales, Marketing, Financial analyses and more as well. Hence, they must be able to quickly adapt to any business model or distribution strategy.

Questions

- How would you increase our conversion rate?
- How would you know if a customer will upgrade or churn?

Expectations

- The candidate should ask the interviewer to clarify the information, e.g. How the company defines conversion rate?

- Identify data sources and stages of the funnels, what are the data sources we have and what others we need, how to collect and consolidate the data?

- Ability to extract the data into meaningful insights that can inform business decisions, the insights would differ depending on the business model (B2B, B2C, etc.) e.g. able to list down all the factors that could affect users subscriptions (B2B).

- Able to compare and benchmark performance with industry insights e.g able to tell what is the average conversion rate of e-commerce companies.

4. Metric-driven

Question

- Top 3 metrics to define the success of this product, what, why and how would you choose?

Expectations

- To answer this question, the candidates need to have basic domain knowledge of the industry or product as well as the understanding of the product's core value propositions.

- A good candidate would also ask for information on company strategy and vision.

- Depending on each product and industry, the key metrics would be different, e.g. Facebook-Daily active users (DAU), Number of users adding 7 friends in the first 10 days; Holistics-Number of reports created and viewed, Number of users invited during the trial period; Uber-Weekly Rides, First ride/passenger …
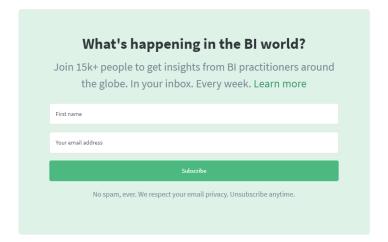
Conclusion

According to my experience, there are a lot of data analysts who are just familiar with doing reporting from requirements, while talented analysts are eager to understand the data deeply and produce meaningful insights to help their team make better decisions, and they are definitely the players you want to have in your A+ team.

Finding a great data analyst is not easy, technical skill is essential, however, mindset is even more important. Therefore, list down all you need from a data analyst, trust your gut and hiring the right person will be a super advantage for your startup.

I'm a Product Manager at Holistics, an End-to-End Business Intelligence Platform helping more than 100 companies around the world become more data-driven, including startups like Grab, Traveloka, Fave… Don't hesitate to reach out if you need help on building a data team!
Our free tools for the community

- dbdiagram.io -A database designer built for analysts and developers
- cloudpivot.co-A tool to visualize your data

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Google Data Studio (GDS) is among the popular BI tools in the market developed by Google. In this post, we're going to do a high-level review and analysis of Google Data Studio, what it does, what it excels at and who or what use cases it would suit best.