

Resource: [6 Responsibilities of a Data Engineer · Start Data Engineering](#)

Q: Imagine that you are hired to enable data analytics; where would you start? How would you go about gathering requirements? Hint: Think backward from what the business may need.

If I were to be hired to enable data analytics in an organization, I would start by addressing the big-picture challenges and then narrow them down once everyone is on the same page. First, I would open communication with end-users, clients, and higher-ups to understand what issues they are facing, what their objectives are, and whether they already have some idea of how a data-oriented environment might help them. It's crucial to understand what kind of data they need, the current issues with data accessibility or quality, and their overall goals with data analytics. Depending on their goals - such as increasing sales, improving employee productivity, decreasing costs, or enhancing in-house processes—we can figure out the most important metrics and make tailored decisions. Reviewing existing documentation and processes would also help identify gaps and inefficiencies.

After gathering all the requirements, the next step would be to design a strong data architecture that supports the organization's needs. This involves setting up or improving ETL processes to ensure data is properly extracted, transformed, and loaded into a data warehouse. Choosing the right tools and technologies that fit the organization's budget and needs is also essential.

Ensuring data quality and governance is another key aspect. I would assess the current state of data quality and implement processes to maintain high standards of accuracy and completeness.

Making data accessible to end-users is critical for effective data analytics. I would implement data visualization tools like Tableau or Power BI, because when you don't visualize data effectively, you miss out on 99% of its value.

I would make sure we monitor the data pipelines and the performance of our solutions. This means we would need to regularly check on the ETL processes to make sure everything runs smoothly and deal with any issues right away. Ensuring that scaling up is possible and the quality is improving would be our main goals for future success.