Business intelligence engineer

WHAT DOES A BUSINESS INTELLIGENCE ENGINEER (BIE) DO AT AMAZON?

BIEs at Amazon interface with the business to build out a variety of analytics, including defining KPIs, automating data pipelines, and creating reports, dashboards, and visualizations. They have an understanding of statistics, data warehousing and Extract, Transform, Load (ETL) and are proficient in SQL. While the role of a BIE may vary slightly from team to team, all BIEs should be able to work with ambiguous data, using advanced SQL and scripting to come up with answers that may not be immediately obvious. BIEs are able to translate between business needs and data, and are able to create actionable insights for their stakeholders.

Want to become an Amazon BIE? Let's walk through some helpful tips for the interview process.

amazon

How to prepare for a BIE interview

Be prepared to write SQL fluently and think about edge cases. Understand different types of joins and how condition filters affect the joins. Be familiar with ways of simplifying a complex query and optimizing performance.

Be familiar with building out analytics and visualization for stakeholders, such as dashboards (QuickSight, Tableau, etc.), reports (Excel, etc.), and defining KPIs that will result in measurable success. We do not have any preference for specific visualization tools, but rather are more interested in your process and approach. Be familiar with data modeling for dashboard performance.

Be prepared to describe examples of when you have worked with the business to gather requirements, and have created analysis and reporting that met customer use cases. Demonstrate your ability to problem solve by using data analysis or statistical methods and A/B testing. Be able to translate ambiguous business problems into requirements, and to pull insights from analyzing data sets.

Showcase your experience with data warehousing and ETL, such as how to use intermediate data stores and ETL frameworks to support regular, high availability reporting.

BIE technical tips

Be prepared to solve in-depth technical questions on SQL, data visualization, and business analytics. Be ready to answer questions on how to optimize queries based on data modeling concepts. Also be ready to demonstrate your ability to use data to answer business questions.

Ask your recruiter which skills are more important for the specific role/team you are interviewing for. Some teams may prioritize statistics knowledge, while others may prioritize experience with ETL and data warehousing. Scripting experience is valuable for some teams, but not important for others. All teams will expect proficiency with SQL, data visualization, and business analytics.

In-person interviews tend to be more in-depth compared to the types of questions asked during your phone interview. The interview will likely include qualifying requirements, checking edge cases, and white boarding solutions with our engineers.

White boarding

Be prepared to white board for SQL and data visualization (and scripting if your hiring team requires it). You will have the option of using either white board or a code sharing link on a laptop.

Write a list of requirements on the board, and keep asking questions, as the initial problem statement may be vague. Requirements should be the first thing you write out.

Interact with your interviewer. Engage with your interviewer with necessary questions to complete the exercise.

Dig for clarification. Your interviewer will not try to trick you. Questions may be intentionally vague to push your innovation.

Know how your solution solves the problem. If you suggest technology to help solve, understand how that technology works.

Think out loud as you work through the problem. This allows the interviewer to better follow and understand your thought process.