* **In a business intelligence engineer interview, you might encounter competency questions like:**
  + Describe a time you used data to solve a business problem.
  + How do you prioritise tasks when working on multiple projects?
  + Give an example of a challenging dataset you worked with and how you handled it.
  + How do you ensure data accuracy and integrity in your reports?
  + Explain a situation where you had to present complex data to a non-technical audience.
* **For an Amazon interview, you might face competency questions like:**
  + Tell me about a time you showed leadership in a project.
  + How have you dealt with a disagreement in a team?
  + Describe a situation where you had to deliver results under tight deadlines.
  + How do you prioritize tasks when faced with multiple high-impact projects?
  + Give an example of how you used data to influence a decision.
  + Leadership: "In my last role, I led a team to analyse customer feedback. I organized regular meetings, encouraged open communication, and helped everyone feel involved. This resulted in a 20% increase in customer satisfaction."
  + Disagreement: "I once disagreed with a team member on the best approach for a project. I listened to their perspective, shared my views, and we found a middle ground that incorporated both ideas, leading to a stronger outcome."
  + Tight Deadlines: "During a critical product launch, I had only a week to analyse data and present insights. I focused on key metrics, worked overtime, and delivered a concise report on time, which helped guide the launch strategy."
  + Prioritizing Tasks: "When managing multiple projects, I assess each task's impact and urgency. I create a matrix to visualize priorities and communicate with stakeholders to ensure alignment on what to tackle first."
  + Influencing Decisions: "I analysed sales data that revealed a trend in customer preferences. I presented these insights to management, which led to a shift in our marketing strategy, resulting in a 15% increase in sales."
  + **Tell me about yourself:**

For an Amazon BIE (Business Intelligence Engineer) interview, you'll want to give a brief overview of your professional background, highlight relevant experience, and showcase skills that align with Amazon's core competencies (problem-solving, customer obsession, data-driven decision-making). Here’s an example of how you can structure your response:

"I have a strong background in data analytics and business intelligence, with over [X years] of experience in gathering, analysing, and transforming data into actionable insights that drive business performance. Throughout my career, I’ve worked across various industries, helping organizations optimize their operations, enhance customer experience, and make informed decisions using data.

In my previous roles, I’ve been responsible for designing and building data models, creating dashboards, and automating reporting processes using tools like SQL, Power BI, and Python. One of my key strengths is my ability to deep dive into large data sets, identify trends, and provide strategic recommendations that solve real business problems. For example, in my last project, I streamlined a reporting system, reducing processing time by 30%, and improved data accuracy, which helped the business make faster, data-driven decisions.

I’m also highly collaborative, having worked closely with cross-functional teams, from stakeholders and product managers to data engineers. I’m comfortable taking ownership of projects, and I’m always focused on delivering high-quality results while aligning with business goals.

I’m especially excited about the opportunity at Amazon because of the company’s data-driven culture and its focus on innovation. I believe my experience in using data to drive strategic decisions, combined with my passion for solving complex problems, aligns perfectly with the BIE role and Amazon’s core principles. I’m eager to contribute to projects that make a direct impact on both the business and the customer experience."

This response covers your technical skills, problem-solving ability, and passion for data, while showing why you're interested in Amazon and how you align with the company’s values.

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1. **Campaign creation – Tangent Ltd**

**Situation**

The company needed to launch a campaign for seasonal products, specifically winter heating products. The goal was to create a marketing strategy that would maximize the effectiveness of the campaign and increase overall business performance. Customers provided their specific requirements for the campaign, and it was crucial to analyse both the current data and trends to design an effective strategy.

**Task**

I was responsible for producing two analysis reports:

1. One based on the customers' provided requirements.
2. The other based on my own independent analysis, which would incorporate additional insights, including year-over-year (YoY) data, and suggestions for expanding the campaign's reach.

My objective was to generate a strategy that would not only meet the customers' needs but also optimize the campaign's impact by including additional data-driven recommendations.

**Action**

To complete the task:

1. I first carefully analysed the customers' requirements and created the first list, which strictly adhered to their expectations and preferences.
2. I then conducted an in-depth analysis of the existing data, including YoY sales trends, customer behaviour, and historical campaign performance.
3. Based on this analysis, I developed the second list with additional suggestions. This included:
   * Identifying new customer segments that were likely to benefit from the campaign.
   * Extending the campaign to these new segments based on their spending patterns in previous campaigns.
   * Implementing additional rules, such as targeting customers who had a higher spend during the last campaign.
4. I presented both lists, explaining the potential benefits of incorporating the additional suggestions.
5. My analysis was reviewed, and the decision was made to implement the extended strategy that incorporated my recommendations.

**Result**

The campaign was executed based on the analysis and extended strategy I developed. As a result, the organization saw about a 15% increase in business compared to the previous campaign. The success was attributed to the expanded customer segments and the data-driven recommendations that helped capture more market opportunities.

**Key Takeaway**

This example shows how I used data to not only identify the root cause of a business problem but also to provide actionable insights and deliver measurable business outcomes. In the BIE role at Amazon, I would apply the same analytical rigor to uncover insights that drive business performance and decision-making.

1. **Daily transactional level data processing – Tangent Ltd**

**Situation**

Our client began sending transactional-level data on a daily basis, which we received via an SFTP server. I was responsible for processing this data and updating the database. However, the entire process was manual, taking around one hour each day. This involved processing the data, updating the database, validating the results, and informing relevant stakeholders, including the business team. This manual process was time-consuming, and I recognized that automating it would save significant time and improve efficiency.

**Task**

My primary task was to process and update the database with daily transactional data. Given that it was a manual process, I identified the opportunity to automate it. The main challenge in automation was that the data files arrived with different file names each day, and I didn’t have direct access to the SFTP server for automated retrieval of the files. My goal was to design and implement an automated ETL process to handle the data processing, database updates, and notifications to relevant stakeholders.

**Action**

To tackle this problem:

1. **Research and Test Automation Tools**: I first researched ETL tools and decided to use Pentaho for building the process. I created a test ETL process using Pentaho to process the file, update the database, and automatically send email notifications to the business team.
2. **Handling Dynamic File Names**: I tested and validated the data within Pentaho, and everything worked well. However, one of the main challenges was extracting the file from the SFTP server due to the changing file names and lack of direct connectivity.
3. **Collaborating with the Developer**: To resolve the file extraction issue, I collaborated with one of our developers. He developed a Python script to automate the file retrieval from the SFTP server. This script was integrated into the ETL process.
4. **Proposal and Approval**: After completing the testing phase and validating the data, I presented the automated process to my manager. I demonstrated how the automation would save one hour daily, allowing the team to focus on other priority tasks. I requested approval to fully automate the process.
5. **Implementation**: Upon receiving approval, I implemented the automated ETL process, ensuring that it ran smoothly daily.

**Result**

By automating the process, we saved one hour of manual work each day. This time was reallocated to other priority projects, improving overall team productivity. The automated solution not only streamlined data processing but also ensured timely and accurate updates to the database and communication with the business team.

1. **CS&Q Project – Leaseplan UK:**

**Situation**

I was assigned to work on the Customer Service & Quality (CS&Q) project, which aimed to deliver reliable and repeatable customer service. The goal was to drive operational excellence through data analysis, metrics, and root cause identification. The CS&Q team manages customer feedback, identifies areas for improvement, and collaborates with different teams to optimize processes and communication. My initial task was to review and develop an existing Power BI model that was being used for this analysis.

**Task**

The existing Power BI model used a multi-layer ETL process with three stages: Source, Staging, and Presentation layers. While effective, the model was complex and inefficient, especially when it came to maintaining the staging data, handling duplicate records, and adding new data sources. With the need to integrate additional data sources for the project, I was tasked with improving the model’s efficiency, simplifying its structure, and ensuring better performance.

**Action**

1. **Research and Analysis**: I first reviewed the existing model and identified inefficiencies in the ETL process. I researched best practices for Power BI and found that using a staging layer in Power BI was causing unnecessary complexity, such as the need for frequent cleanups and difficulty managing transformations.
2. **Consultation and Solution Design**: I consulted with senior colleagues and explored different approaches. After researching, I decided to perform most data transformations directly in SQL instead of Power BI. I created a new model by implementing a **Star Schema** within Power BI, consolidating the three layers into a more streamlined single-layer process.
3. **Testing and Validation**: After building the new model, I tested its performance and found it reduced processing time by about 30%. I validated the data to ensure accuracy and confirmed that the simplified model maintained data integrity while improving performance.
4. **Presentation of Findings**: I prepared a presentation outlining the old model’s drawbacks, my new approach, and a detailed performance comparison. I included a model diagram, pros and cons of both approaches, and the reasoning behind the changes. The CS&Q lead liked the improved model and its potential.
5. **Collaboration for Future Integration**: As part of the project, we needed to incorporate data from another organization that merged with ours. I scheduled a meeting with the Data Architecture and Engineering teams to discuss integration strategies. Based on our discussions, I developed three different proposal plans, each with estimated timelines and a step-by-step approach to integrating the new data sources.
6. **Approval and Next Steps**: I presented the proposal to the project manager, who approved the model. It was then taken to the Board for approval as a larger project. The Board approved the proposal, and we are now preparing for the next steps to implement the solution.

**Result**

By simplifying the Power BI model and optimizing the data transformation process, we saved 30% of processing time. The new model is more efficient, scalable, and easy to maintain, allowing us to integrate additional data sources seamlessly. The improved analytics model will help the CS&Q team deliver better insights, enhancing customer service performance and boosting organizational reputation. Once fully implemented, this solution is expected to drive operational excellence across the organization.

This STAR response highlights how you analyzed, improved, and implemented a more efficient model while showcasing collaboration, problem-solving, and data-driven decision-making skills essential for a BIE role at Amazon.

1. **Insurance Task – Leaseplan UK:**

**Situation**

We had an existing insurance product that the company offered to all customers. The organization wanted to introduce another gap insurance product, specifically targeted at a certain customer segment. This task had been started by one of my colleagues, but halfway through development, he left the organization. I took the initiative to complete the project, which was critical for launching the new product offering.

**Task**

I needed to take over, review, and complete the development of a Power BI report that would allow the business to track insurance sales across specific customer segments. A major challenge I faced was that some aspects of the report, particularly a key visual, were not functioning as required. The report was only showing the monthly premium amount, but the business needed to view premiums over a custom date range.

**Action**

1. **Review and Gather Information**: I started by reviewing the existing work done by my colleague and scheduling meetings with stakeholders to fully understand the task’s objectives and any outstanding requirements.
2. **Problem-Solving and Adjustments**: I continued working on the report but encountered an issue with one of the key visuals. The current approach was only capable of displaying the monthly premium amounts, whereas the business wanted the flexibility to display premiums over any selected date range. I resolved this issue by:
   * Amending the existing process using advanced **DAX functions**.
   * Creating dynamic **parameters** that allowed users to select custom date ranges.
   * Adjusting the data model and visual to reflect the total premiums for any user-selected date range.
3. **Testing and Validation**: Once the changes were made, I extracted sample data to validate that the report was accurately calculating the premium amounts across different date ranges. I ran multiple tests to ensure the data was correct and aligned with business expectations.
4. **Collaboration and Iteration**: Throughout the development process, I frequently scheduled meetings with the stakeholders to review the report. This helped gather their feedback, address any questions, and make further improvements based on their suggestions.
5. **Final Deployment**: After incorporating all feedback, I completed the Power BI report with the required visuals and set up an automatic daily refresh in production. This ensured the sales team and management could access up-to-date information on insurance sales performance.

**Result**

The report was successfully published, and it provided the business with the necessary flexibility to track insurance premiums by date range. The department appreciated the solution’s ease of use, and I received positive feedback from both the business and my managers. My manager also recognized my initiative and effective communication during the project on my workday portal. The report is now actively used to monitor sales performance and has contributed to the successful launch of the new gap insurance product.

This STAR response demonstrates how you took initiative, solved a technical challenge, communicated effectively with stakeholders, and delivered a successful solution that met business needs—qualities highly valued in a Business Intelligence Engineer role at Amazon.

1. **Preference daily process updation – Tangent Ltd:**

**Situation**

After running a marketing campaign, I sent communications to all customers, but we received complaints that some customers who had opted out of receiving emails still received the campaign messages. Additionally, branch managers raised concerns about the opt-out process not working as expected. This issue became critical, and I was tasked with investigating and resolving it.

**Task**

My task was to identify the root cause of why opted-out customers were still receiving emails, ensure that the opt-out preferences were respected, and implement a solution that would prevent this issue from occurring in future campaigns.

**Action**

1. **Investigating the Problem**: We discussed the issue in our daily call, and I started investigating the data sources used to extract customer preferences. I found that we were pulling data from multiple tables, but there were also two additional sources affecting opt-in/opt-out preferences that weren’t being considered.
2. **Meeting with Stakeholders**: I arranged a meeting with the business team to understand the full scope of where customers could choose their preferences. After this discussion, I discovered that there were four different systems where customers could opt-in or opt-out, and these weren’t fully integrated.
3. **Exploring the Database**: I conducted an in-depth exploration of all the databases and sources used to manage customer preferences. I also reviewed the daily process that updated the main preference table. I discovered inconsistencies in how the data was being handled, leading to discrepancies in the opt-out lists.
4. **Data Audit**: To clean up the data, I performed a full data audit, which involved:
   * Checking email addresses and phone numbers against customer preferences across all relevant tables.
   * Removing duplicate records.
   * Identifying incorrect emails and phone numbers.
   * Flagging outdated records of customers who were no longer active with the business.

I presented the audit findings to my team, and our account manager shared the results with the business for verification.

1. **Amending the Process**: After completing the data audit, I recommended changes to the current process. I suggested amending the scripts to ensure all four sources were integrated into a single customer preference management system. I designed a new data flow process and presented the updated diagram to the team. The business approved the changes, and the task was converted into a formal project.
2. **Script Development and Automation**:
   * I updated the existing SQL scripts to ensure all customer preferences were accurately captured from all sources.
   * I automated the process using Pentaho Kettle, ensuring that the opt-in/opt-out preferences were updated daily and the results were automatically sent to the relevant business stakeholders via email.
3. **Testing and Validation**: After implementing the changes, I tested the updated process, ran validation checks, and confirmed that the data was accurate. I also monitored the process to ensure that opt-out customers were no longer receiving unwanted emails.

**Result**

As a result of this project, we reduced opt-out complaints by more than 90%. The process became much more reliable, ensuring customer preferences were respected and reducing communication errors. The business was satisfied with the solution, and my proactive investigation and effective implementation received positive feedback from both the business and management.

This STAR response highlights your ability to investigate issues, collaborate with stakeholders, perform data audits, and implement data-driven solutions. It also showcases your skills in improving processes, working with SQL, and automating workflows—key qualities for a Business Intelligence Engineer role at Amazon.

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1. **Why Amazon**

**1. Amazon’s Data-Driven Culture**

Amazon has a strong culture of being data-driven, with decisions based heavily on data and analytics. As a Business Intelligence Engineer (BIE), this is incredibly appealing because it means you would be part of a company where data truly drives innovation and decision-making. This aligns perfectly with my passion for transforming data into actionable insights that influence key business decisions.

**Example**: “Amazon’s commitment to data-backed decision-making resonates with me. As someone who thrives on solving complex problems through data analysis and developing insights to drive strategy, I believe Amazon’s environment would allow me to maximize my skills and have a direct impact on business outcomes.”

**2. Amazon’s Scale and Complexity**

Amazon operates on a global scale, and its data ecosystem is vast and complex. The volume, velocity, and variety of data that Amazon handles is unmatched, and being a part of that would provide unique challenges and learning opportunities that I find incredibly motivating.

**Example**: “The complexity and scale at which Amazon operates are unmatched, and it excites me to work in an environment where large-scale data solutions are needed to tackle challenges in real-time. I look forward to the challenge of working with Amazon’s diverse datasets to deliver solutions that are both innovative and impactful.”

**3. Opportunities for Innovation and Growth**

Amazon is known for its innovation, and being in a BIE role would allow me to work on cutting-edge projects that push the boundaries of business intelligence and data analytics. Amazon encourages ownership and experimentation, which provides a platform for continuous learning and growth.

**Example**: “Amazon’s focus on innovation and the ‘Day 1’ mentality creates a perfect environment for a Business Intelligence Engineer to continuously learn and grow. I’m excited about the opportunity to drive innovation through data analytics, and Amazon’s support for taking ownership would allow me to pursue ideas that create significant business value.”

**4. Customer-Centric Approach**

Amazon’s mission to be the most customer-centric company is reflected in how it uses data to enhance customer experiences. The BIE role at Amazon would enable me to contribute to initiatives that directly improve customer satisfaction, which I find incredibly fulfilling.

**Example**: “I am particularly drawn to Amazon’s customer-centric approach. As a Business Intelligence Engineer, I would have the opportunity to analyze customer data and behaviors to create insights that can improve customer experience. Knowing that my work directly impacts millions of customers worldwide is highly motivating.”

**5. Leadership Principles**

Amazon’s leadership principles, such as “Dive Deep” and “Invent and Simplify,” resonate with how I approach my work. These principles encourage deep analysis, creativity, and continuous improvement, all of which are critical in a Business Intelligence role.

**Example**: “Amazon’s leadership principles, especially ‘Dive Deep’ and ‘Invent and Simplify,’ are closely aligned with my professional values. I believe in thorough analysis and simplifying complex processes to create value. These principles would guide my approach to solving data challenges at Amazon and would enable me to thrive in a culture that values both rigor and innovation.”

**Closing**

In conclusion, Amazon’s data-driven culture, global scale, innovative environment, customer-centric focus, and leadership principles make it the ideal place for me to further my career as a Business Intelligence Engineer. I am eager to contribute my skills and grow alongside a company that’s always pushing the boundaries of what’s possible through data.

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**Questions I have to ask to interviewer:**

* Amazon has been doing amazing things with Generative AI. Are there any projects you're working on that use AI to change how customers discover, listen to, or create music through cloud services?
* What tools and technologies does your team commonly use for data analysis and visualization? Are there any plans to adopt new technologies?
* My friends who work at Amazon have talked about the Day 1 culture, and I'm curious—how does Amazon Music embrace that Day 1 mindset in its projects and approach to innovation?