

Thank you taking the time to speak with us. The below tips are intended to enhance your candidate experience.

Amazon—a place where builders can build. We hire the world's brightest minds and offer them an environment in which they can invent and innovate to improve the experience for our customers. We want employees who will help share and shape our mission to be Earth's most customer-centric company. Amazon's evolution from Web site, to e-commerce partner, to development platform, is driven by the spirit of invention that is part of our DNA. We do this every day by solving complex technical and business problems with ingenuity and simplicity. We're making history, and the good news is that we've only just begun.

**Work hard. Have fun. Make history.**

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Our engineers tackle some of the most complex challenges in large-scale computing. Software development engineers, technical program managers, test engineers, data/BI engineers and user-interface experts work in small teams across the company to contribute to the e-commerce platform that's used by:

**Over 152 million active Amazon customer accounts**

**Over 2 million active seller accounts**

**Hundreds of thousands of external developers**

## Technical Topics to Review

Excited about analyzing business requirement, data modeling, ETL development, BI reports, testing, setting up the environment etc.? How about doing the all in one role? At amazon, our Data Engineers cover the wide spectrum of things and that makes Data Engineers at amazon unique!

Here are some topics for you to review.

### 1) Data warehouse Concepts

Most of the work we do involves storing and providing access to data in efficient ways. Our Data Engineers build different types of DW layers such as Stage, ODS, Data Marts etc. based on specific usecases. This necessitates a good understanding of Data Warehouse

components, development approaches and processes. We expect the Data Engineers to have a good fundamental understanding of data warehouse concepts and the purpose of building a system for BI and analytics. You will be expected to know how OLTP and OLAP differs in terms of storage, processing and data.

## 2) Data Modeling

Good data modeling is paramount to consistent, bug free and a long-lived data. It's possible to solve any given data request in an almost limitless number of ways, but when data needs to be extensible and maintainable throughout the systems, a good data model is critical to success. When it comes to handling a business requirement with an ability to handle large data, a deeper understanding of normalized (Third Normal Form) and denormalized design (Dimensional Modeling - Star Schema, Snow-Flaked Schema) considerations is very useful. We expect the Data Engineers to have knowledge and exposure to various DW modelling techniques and a strategic understanding of translating requirements into appropriate data model structures including Business Model, Logical Model and Physical Model.

## 3) Database concepts and performance tuning

Most of the software that we write is backed by a data store, somewhere. Many of the challenges we face arise when figuring out how to most efficiently retrieve or store data for future use. We do not require you to know any database in specific but we do like you to have clear thoughts on handling huge data, estimating and validating database sizing, data storage strategy using partitions, indexing strategy. It is preferred to have an ability to tune a complex query on a huge data using execution plan, understanding on join mechanisms and memory - disk - IO usage considerations. Using parallelism and understanding on optimum data archiving and purging strategies will also be handy.

## 4) ETL

At amazon, we deal with a very diverse and high volume data - millions of records per day! In order to create high quality BI reports to assist decision making, it is absolutely essential to have a high quality data available in a timely and efficient manner. Again, we do not require you to know any ETL tool in specific, but conceptual understanding of extraction, transformation and load process while dealing with large datasets is desired. We also want our Data Engineers to think about design considerations, operational issues, failure points and recovery methods to come up with the best possible solution. In the

fast paced environment at amazon, metadata management becomes utmost important. This includes maintaining ETL MDM, source to target mapping, managing data transformations etc. While focusing on data quality, managing huge data loads with capturing change data, load window strategy, ETL thread dependencies become critical to our day to day operation.

## 5) SQL and Reporting Concepts

Writing “any” query just won’t cut it. At Amazon, we need queries that are efficient and can scale for our massive data volume. Ability to understand the data, grain, entity relationships, set operators and wisely deciding on usage of aggregate functions, analytical functions or a combination of both is essential. Writing hierarchical queries with insights to handle huge volume of data and performance considerations is also preferred.

This was a relatively long list of topics to review and might seem somewhat overwhelming. Your interviewers won’t be evaluating your ability to memorize all of the details about each of these topics. What they will be looking for is your ability to apply what you know to solve problems efficiently and effectively.

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“Invention is in our DNA and technology is the fundamental tool we wield to evolve and improve every aspect of the experience we provide our customers.”

- Jeff Bezos, 2010 Shareholder letter

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## Interview Tips

- Be prepared to discuss technologies listed on your resume. For example, if you list Hadoop or Python as technical competencies, you should expect technical question about your experience with these technologies. It’s also helpful to review the job description before your interview to align your qualifications against the

job's specific requirements and responsibilities.

- Please ask questions if you need clarification. We want the interview process to be collaborative. We also want to learn what it would be like to work with you on a day-to-day basis in our open environment. If you are asked a question, but not given enough information to solve the problem, drill down to get the information that you need. If that information isn't available, focus on how you would attempt to solve the problem given the limited information you have. Often times at Amazon, we have to make quick decisions in the absence of all of the relevant data.
- When answering questions, be as **concise** and detailed in your response as possible. We realize it's hard to gauge how much information is too much versus not sufficient enough; an effective litmus test is pausing after your **succinct** response to ask if you've provided enough detail, or if the interviewer would like you to go into more depth.

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"Many of the problems we face have no textbook solution, and so we happily invent new ones."

- Jeff Bezos, 2010 Shareholder letter

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- We want to hire smart, passionate people. Please reflect on what motivated you to pursue a career with Amazon and be prepared to speak to it. Although "Why Amazon?" is a standard type of question, it's not a check-the-box type of formality for us. We genuinely want to understand what inspired you to explore an opportunity with us, so we get a better sense of who you are. It's also appreciated when a candidate has put thought into a few questions for the interviewer. It goes a long way when you've taken the initiative to research the company prior to your interview.

## Our Leadership Principles

Whether you are an individual contributor or a manager of a large team, you are an Amazon leader. These are our leadership principles, unless you know better ones. Please be a leader.

**Customer Obsession**

Leaders start with the customer and work backwards. They work vigorously to earn and keep customer trust. Although leaders pay attention to competitors, they obsess over customers.

**Ownership**

Leaders are owners. They think long term and don't sacrifice long-term value for short-term results. They act on behalf of the entire company, beyond just their own team. They never say "that's not my job".

**Invent and Simplify**

Leaders expect and require innovation and invention from their teams and always find ways to simplify. They are externally aware, look for new ideas from everywhere, and are not limited by "not invented here". As we do new things, we accept that we may be misunderstood for long periods of time.

**Are Right, A Lot**

Leaders are right a lot. They have strong judgment and good instincts. They seek diverse perspectives and work to disconfirm their beliefs.

**Learn and Be Curious**

Leaders are never done learning and always seek to improve themselves. They are curious about new possibilities and act to explore them.

**Hire and Develop the Best**

Leaders raise the performance bar with every hire and promotion. They recognize exceptional talent, and willingly move them throughout the organization. Leaders develop leaders and take seriously their role in coaching others. We work on behalf of our people to invent mechanisms for development like Career Choice.

**Insist on the Highest Standards**

Leaders have relentlessly high standards - many people may think these standards are unreasonably high. Leaders are continually raising the bar and drive their teams to deliver high quality products, services and processes. Leaders ensure that defects do not get sent down the line and that problems are fixed so they stay fixed.

**Think Big**

Thinking small is a self-fulfilling prophecy. Leaders create and communicate a bold direction that inspires results. They think differently and look around corners for ways to serve customers.

**Bias for Action**

Speed matters in business. Many decisions and actions are reversible and do not need extensive study. We value calculated risk taking.

**Frugality**

Accomplish more with less. Constraints breed resourcefulness, self-sufficiency and invention. There are no extra points for growing headcount, budget size or fixed expense.

**Earn Trust**

Leaders listen attentively, speak candidly, and treat others respectfully. They are vocally self-critical, even when doing so is awkward or embarrassing. Leaders do not believe their or their team's body odor smells of perfume. They benchmark themselves and their teams against the best.

**Dive Deep**

Leaders operate at all levels, stay connected to the details, audit frequently, and are skeptical when metrics and anecdote differ. No task is beneath them.

**Have Backbone; Disagree and Commit**

Leaders are obligated to respectfully challenge decisions when they disagree, even when doing so is uncomfortable or exhausting. Leaders have conviction and are tenacious. They do not compromise for the sake of social cohesion. Once a decision is determined, they commit wholly.

**Deliver Results**

Leaders focus on the key inputs for their business and deliver them with the right quality and in a timely fashion. Despite setbacks, they rise to the occasion and never settle.