

# Google Interview Prep Guide

## Principal Architect

### How we hire

There's no one kind of Googler, so we're always looking for people who can bring new perspectives and life experiences to our teams. If you're looking for a place that values your curiosity, passion, and desire to learn, or if you're seeking colleagues who are big thinkers eager to take on fresh challenges as a team, then you may be a future Googler.

### Connect with a Googler

Interested in learning more about what it's like to work at Google? Let your recruiter know and they'll set you up for a phone call with a Googler in your field of expertise for an insider's perspective on everything from technology to culture, and more. This call is not an interview, but rather an informal 30-minute conversation with Google employees who volunteer their time to speak with candidates about the hiring process.

### The interviews

We evaluate four attributes: Googleness and leadership, general cognitive ability, sales role-related knowledge, and technical role-related knowledge.

The following 4 interviews could happen in any order and are all conducted virtually via video conferencing:

#### Round One

- Technical role-related knowledge - 60 min

#### Round Two

- Googleness and leadership - 45 min
- General cognitive ability - 45 min
- Sales role-related knowledge - 45 min

# Build for everyone

**Googleness:** Share how you work individually and on a team, how you help others, how you navigate ambiguity, and how you push yourself to grow outside of your comfort zone.

**Leadership:** Be prepared to discuss how you have used your communication and decision-making skills to mobilize others. This might be by stepping up to a leadership role at work or with an organization, or by helping a team succeed even when you weren't officially the leader.

**General cognitive ability:** This interview is designed to evaluate how you approach and solve problems. There are no "right" or "wrong" solutions; rather, we're interested in observing the data-driven approach you take to identify a logical recommendation with the ability to support your solution.

## We suggest following this 4-step framework:

1. Show you understand the problem by asking clarifying questions to get additional context. If you don't get a direct answer to your question, leverage assumptions to begin creating tangible information to work with.
2. Prepare by verbalizing the data needed to identify a solution — this may include existing, historic, and/or new data. Be clear about where you might seek existing data points or how you might gather new information.
3. Identify a solution. Feel free to weigh out options, but ultimately articulate your recommendation.
4. Support your solution. What was the outcome/result? Explain how you would track effectiveness over time.

The questions during this interview may be hypothetical, behavioral, or technical in nature.

- Hypothetical questions evaluate how you would handle a challenge you may not have encountered yet.
- Behavioral questions may ask you for real-life examples of times where you had to think outside of the box to overcome challenges.
- Technical questions may include a mock customer scenario where you'll be asked how you'd identify the appropriate solution.

**Role-related knowledge (2 interviews):** With role-related knowledge (RRK), there will be a sales-focused interview and a technical interview. The technical interview won't include coding, but you should be prepared to illustrate solutions on a whiteboard.

## The technical interview

This interview will dig into your technical foundation, strategy, and related industry acumen.

**Technology strategy** - Understand all of the IT pieces that influence an Enterprise IT architecture and provide a holistic view of customer technologies and business processes. Prepare examples of when you were able to craft an entire IT roadmap or lead a cloud digital transformation for a large enterprise account.

**Technical foundation** - Be prepared to draw an end-to-end, multi-dimensional cloud architecture while illustrating your strategy on a (virtual) whiteboard. Please remember to check out the [Virtual Interview Candidate Guide](#) once the interview is scheduled. Interviewers will ask you questions related to your choices, which can touch on storage, availability, scalability, disaster recovery, migration, and the relative cost of them.

Although you're encouraged to leverage your hands-on experience across any cloud platforms, it's critical to study the Google Cloud Platform (GCP) and be able to tie your experience into GCP tools and offerings. We highly recommend studying [GCP whitepapers](#) and using your Gmail account to play around in the console.

## The sales interview

This interview will dig into executive sales-related soft skills, account management, and presentation skills.

**Sales skills** - You'll be evaluated on your strategic relationship management skills and understanding of the sales discovery process.

**Account management** - Talk through how you would orchestrate complex account strategy with long-term vision and drive large-scale accounts to success with change management skills.

**Panel presentation** - This portion of the sales interview will be about 15–20 minutes long, and you will **choose and present on only one of the business cases provided below**. The presentation will be a **role play** scenario where you'll envision that you're presenting to a business executive and a technical executive (e.g., CEO and CTO) of a large enterprise customer. Your goal is to prepare a short presentation that demonstrates a clear overview of the business problem, implementation strategy, and ability to differentiate between the priorities of the represented stakeholders.

**Note:** The business case options are **not** testing for vertical industry acumen, but rather for general cloud concepts and your ability to articulate the value of cloud in those specific scenarios.

## Presentation tips:

- Make sure that your tech strategy addresses the business challenges. Your goal is to share an opinion that focuses on short-, mid-, and long-term business value in a succinct presentation. This should be based on your ability to assimilate both business and technical challenges/objectives contained in the business case.
- Be prepared to handle objections towards the end of your presentation.
- Prepare for this portion of the interview process in whatever way works best for you. As a general guideline, preparation should not take more than just a few hours, and our soft guidance is to keep your deck under 4 slides. We have learned from others that the best way to prepare is to practice, practice, practice and make sure that you're timing yourself. As a reminder, this portion of the interview should be anywhere from 15–20 minutes in duration.

## Business Case (Option A): Large manufacturer of food products

### Description

Large manufacturing company providing food products to ten of thousands of stores using a direct store delivery (DSD) model. Annual revenue is over \$60 billion USD per year, and the company employs over 200,000 employees. The company is currently using two data centers about 10 miles apart and cloud usage is limited to a large data lake.

### Business priorities

- Improve the efficiency of the DSD model so products can be delivered for less cost.
- Create direct to consumer channels to reduce the dependence on large retailers like Walmart, Costco, etc.
- Keep pace with societal changes as customers look at making healthier food choices.
- Modernize the technology landscape and move to *managed platforms* instead of *custom systems*.
- Migrate off of the mainframe.

### Business challenges

- **Complex landscape** - Applications are reliant on legacy databases that are duplicated in each datacenter. Large amounts of data are being replicated through multiple replication methods that fail regularly resulting in outages.
- **Technical debt** - The technical landscape encompasses systems designed over the past 30 years, including a mainframe. This diverse landscape makes system support very challenging and expensive.

## Build for everyone

- **Functional redundancy** - Because of scale issues, numerous mission-critical systems are replicated to each region. This increases the support overhead and makes system upgrades very challenging.
- **Limited automation** - Deployment processes are manual, making system upgrades slow and error prone.
- **Security** - The applications use a custom built authentication and authorization that uses a legacy relational database for storage. Some of the applications have credentials stored in property files in a readable format.
- **Diverse reporting** - Virtually all reporting is done using custom applications. It takes significant manual effort to report on KPIs needed by the business.
- **Data center locations** - Only two US-based data centers are in use, and they are relatively close together, less than 15 miles.
- **Dependency on the mainframe** - Every order is processed by applications running on the mainframe. The mainframe is expensive to operate and requires the business to maintain at least two on premise data centers for disaster recovery (primary and secondary).

### Business Case (Option B): Large provider of travel support services

#### Description

Large provider of travel support services such as airline fares. Revenues in 2018 were \$2.5 billion USD, but COVID-19 has had a significant negative impact on revenue. The company is represented in 180 countries and territories with a significant amount of business coming from outside of the United States. They are currently using two on prem data centers located about 40 miles apart with no production workloads running in the cloud.

#### Business priorities

- Reduce operational costs as quickly as possible because of the loss of revenue resulting from the pandemic.
- Modernize the application portfolio to reduce the dependency on legacy technologies that are no longer widely used.
- Grow the business outside of the travel industry to help mitigate the impact of a future pandemic.

#### Business Challenges

- **Changing business model** - Consumer-focused travel sites like Expedia submit an order of magnitude more requests in order to get the best fare vs. a traditional airline user.
- **Underutilized hardware** - At peak before the pandemic, over 300,000 cores were in use. The pandemic has resulted in a 80% reduction in transactions resulting in a significant amount of unused hardware.

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- **Technical debt** - The primary application was built over 20 years ago using a language that is no longer widely utilized. Only a few people in the company really understand how it works.
- **Data center locations** - Only two US-based data centers are in use, even though about half of the company's revenue is derived from outside of the US. As a result, every transaction has to come back to a US data center for processing.

## Why Google

Google Cloud provides organizations with leading infrastructure, platform capabilities and industry solutions, along with expertise, to reinvent their business with data-powered innovation on modern computing infrastructure. We deliver enterprise-grade cloud solutions that leverage Google's cutting-edge technology to help companies operate more efficiently, modernize for growth and innovate for the future. Customers in more than 150 countries turn to Google Cloud as their trusted partner to solve their most critical business problems.

## Interview Warmup

Interview Warmup is a tool that lets anyone practice answering interview questions to get more confident and comfortable with the interview process. Your answers are transcribed in real time so you can review what you said and discover patterns in your responses. Click [here](#) to start practicing.

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## Additional Resources

### GCP Product Knowledge

[Google Cloud products](#)  
[Google Cloud customers \(customer highlights\)](#)  
[Google Cloud Next](#)  
[GCP Latest Stories](#)  
[Cloud Architecture Center](#)

### About Us

[About Google](#)  
[Our Story](#)  
[How we hire](#)  
[Life at Google Youtube Channel](#)



## Infrastructure Modernization

Related GCP technologies

[Compute Engine](#)

[Anthos](#)

[Google Cloud Adoption Framework](#)

[Google Cloud Deployment Manager](#)

Other suggested links

[VM Migration \(GCP\)](#)

[Data center migration \(GCP\)](#)

## Data Management

Related GCP technologies

Cloud SQL: [Managed Services](#) & [Cloud SQL](#)

[Spanner](#)

[BigTable](#)

[Datastore](#)

[Memorystore](#)

## Machine Learning

GCP technologies related to ML

[AI & ML GCP Overview](#)

[Cloud ML Engine](#)

[Google Cloud Whitepapers](#)

## Security and Compliance

Related GCP technologies

[Security & Compliance Portfolio](#)

[Google Infrastructure Security Overview](#)

[HIPAA Compliance \(GCP\)](#)

[Encryption Key Management \(GCP\)](#)

## Analytics

Related GCP technologies

[BigQuery](#)

[Google's Big Data Portfolio](#)

[GCP Big Data Solutions](#)

Other suggested links

[GCP Data Analytics Blog](#)

## Application Modernization

Related GCP technologies

[Kubernetes](#)

[Cloud Deployment Manager](#)

[Firebase](#)

[Stackdriver](#)

[Security & InfoSec](#)

[BeyondCorp](#) (Enterprise security)

[Memorystore](#)

Other suggested links

[DevOps Solutions \(GCP\)](#)

## Networking

Related GCP technologies

[Google VPC](#) fundamentals, features and architectures

[Cloud Interconnect](#) (Hybrid Cloud Networking)

[Cloud DNS](#)

[Cloud Load Balancing](#)

[Cloud CDN](#)

**Build**  
for  
everyone

