The Senior Signal

Android Interview Essentials 2026

Mike Salari
salari.dev

SAMPLE EDITION

This sample includes the opening pages and selected interview traps from *The Senior Signal: Android Interview Essentials 2026*. The full Essentials edition contains 50 senior Android interview traps, 10 worked scenarios, and a 101-question checklist. The complete Senior Signal blueprint is available at salari.dev.

Preface

I have spent more than fifteen years shipping production mobile software, and I have sat on the interviewer's side of the table more than five hundred times. The pattern that seat teaches is uncomfortable: the candidate who knows the most facts is rarely the one who gets the offer. The offer goes to the person who carries the reasoning, the one who answers a question about a scope with ownership and lifetime, a

question about a slow screen with a measurement plan, a question about a crash with evidence.

This Essentials edition is the fast version of that idea: fifty senior interview traps, ten worked scenarios, and a 101-question checklist, all built around the reasoning that

survives the follow-up. The full blueprint goes deeper, but this is enough to change how you walk into the room.

50 senior interview traps

TRAP 1

A coroutine launched in viewModelScope is still running after the ViewModel is cleared. What went wrong and how do you fix it?

WHAT WEAK CANDIDATES SAY

catch (e: Exception) blocks that swallow CancellationException, keeping the coroutine alive through cancellation points.

WHAT STRONG CANDIDATES SAY

Still correct. viewModelScope cancels on onCleared, but cancellation is cooperative. Blocking calls (Thread.sleep, blocking I/O, tight CPU loops) never observe cancellation.

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A senior candidate explains cooperative cancellation precisely, names the three escape hatches (blocking code, external scopes, swallowed CancellationException), and knows runInterruptible for truly blocking libraries.

FOLLOW-UP TO EXPECT

Interviewers commonly push on believing cancel interrupts threads; it only sets a flag suspension points check.

TRAP 2

Explain the difference between StateFlow and SharedFlow. In which real scenarios would you choose one over the other?

WHAT WEAK CANDIDATES SAY

SharedFlow(replay = 1) as a StateFlow substitute, losing dedup and initial-value guarantees.

WHAT STRONG CANDIDATES SAY

Still correct. StateFlow: always has a value, conflates, deduplicates via equals, replays the latest to new collectors. SharedFlow: configurable replay and buffering, no initial value, no dedup, supports suspend-on-backpressure or drop strategies.

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A senior candidate frames it as state versus events versus broadcasts, and can recite conflation, replay, and equality-dedup behavior exactly.

FOLLOW-UP TO EXPECT

Interviewers commonly push on using either for one-shot UI events without understanding delivery guarantees.

TRAP 3

How do you design a repository layer that exposes Flow for data while handling loading, error, and success states cleanly?

WHAT WEAK CANDIDATES SAY

repositories emitting UI state types, coupling data layer to presentation.

WHAT STRONG CANDIDATES SAY

Still correct. Current guidance: repositories expose Flow of domain data (not UI state); the ViewModel maps to a UI state type with loading and error branches. Wrap transitions with onStart, catch for upstream failures, and model results with a sealed Result type where callers need error detail.

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A senior candidate domain flows in the repository, UI state mapping in the ViewModel, catch semantics explained, and stateIn sharing strategy justified.

FOLLOW-UP TO EXPECT

Interviewers commonly push on catch placed before the failing operator, silently missing errors.

TRAP 4

You have complex concurrent operations, multiple API calls that can fail independently. How do you structure the coroutines for good error handling and cancellation?

WHAT WEAK CANDIDATES SAY

async inside a plain scope with try catch around await, not realizing the failure still cancels the parent.

WHAT STRONG CANDIDATES SAY

Still correct. Structured concurrency: coroutineScope plus async for all-or-nothing (one failure cancels siblings and rethrows); supervisorScope with per-async try catch, or wrapping each call in runCatching inside async, for independent failures where partial results are acceptable. awaitAll fails fast on the first failure.

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A senior candidate chooses coroutineScope versus supervisorScope by product semantics, and explains exception propagation direction through the job tree.

FOLLOW-UP TO EXPECT

Interviewers commonly push on supervisorJob sprinkled without understanding it only affects direct children.

TRAP 5

Explain the difference between remember and rememberSaveable. In a real app, when would using the wrong one cause user-visible bugs after process death?

WHAT WEAK CANDIDATES SAY

testing only rotation, which remember also fails, then assuming rememberSaveable is only about rotation.

WHAT STRONG CANDIDATES SAY

Still correct. remember survives recomposition only; it dies with the composition and with the process. rememberSaveable additionally writes into the saved instance state Bundle, so it survives configuration change and process death.

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A senior candidate tests with "Don't keep activities" or the am kill command, and draws the line between UI-transient state, saveable UI state, and ViewModel-owned state.

FOLLOW-UP TO EXPECT

Interviewers commonly push on stuffing large objects into rememberSaveable and hitting TransactionTooLargeException.

Question checklist (excerpt)

COROUTINES AND FLOW

1. A coroutine launched in viewModelScope is still running after the ViewModel is cleared. What went wrong and how do you fix it?

JETPACK COMPOSE

1. Explain the difference between remember and rememberSaveable. In a real app, when would using the wrong one cause user-visible bugs after process death?

PERFORMANCE

1. How do you measure and improve app startup time in a measurable, sustainable way?

SECURITY

1. How would you securely store sensitive data, tokens, keys, user credentials, in an Android application?

ARCHITECTURE

1. MVVM versus MVI: in a real project, when would you choose one over the other? What are the maintenance and testing implications?

MOBILE SYSTEM DESIGN

1. How would you architect a feature flag and remote config system that supports gradual rollouts, A/B testing, and instant updates without app releases?

NETWORKING

1. How do you implement authenticated requests with automatic token refresh using Retrofit and OkHttp without race conditions?

LOCAL DATA AND OFFLINE-FIRST

1. How do you implement a single source of truth using Room while supporting both online and offline reads and writes?

MEMORY

1. What are the most common sources of memory leaks in modern Android apps using Compose, coroutines, and dependency injection?

BATTERY AND BACKGROUND

1. How do you design background work, sync, uploads, location, to be battery-efficient while remaining reliable?

Get the complete edition

The full **Senior Signal** blueprint includes:

- 28 chapters of senior-level reasoning, junior to staff
- 119 worked deep-answer scenarios with the trap and the senior line for each
- The complete 401-question Android interview bank
- Case studies, follow-ups, diagrams, and per-chapter source notes
- Updated editions as the platform moves

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