

Project Design Phase

Solution Architecture

Date	29 june 2025
Team ID	LTVIP2025TMID50169
Project Name	iRevolution A Data-driven Exploration of Apple's iPhone Impact in India using Tableau
Maximum Marks	4 Marks

Solution Architecture:

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals are to:

- Find the best tech solution to solve existing business problems.
- Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders.
- Define features, development phases, and solution requirements.
- Provide specifications according to which the solution is defined, managed, and delivered.

Example - Solution Architecture Diagram:

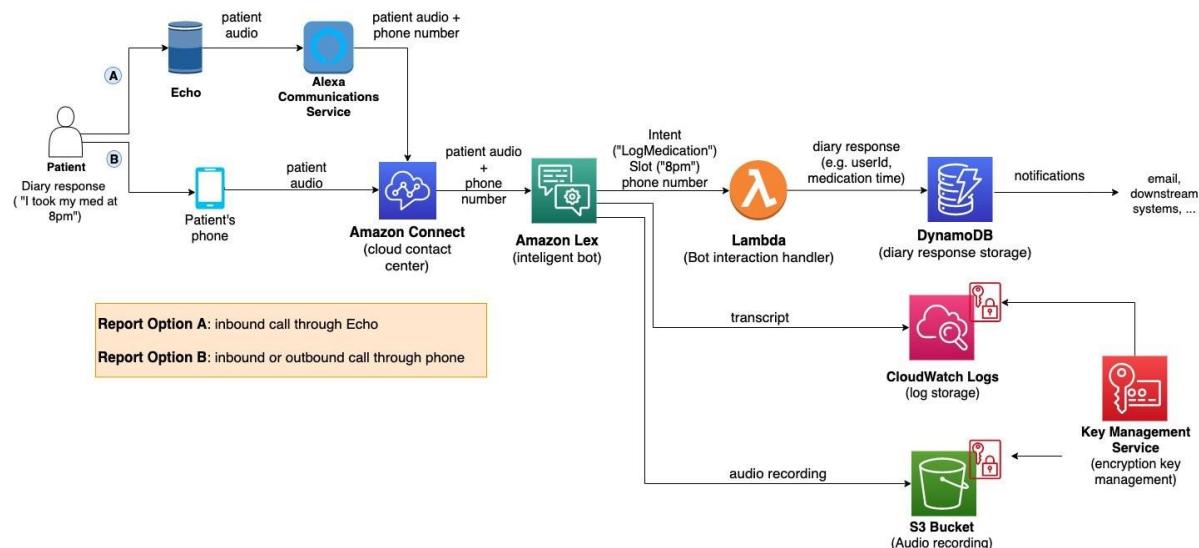


Figure 1: Architecture and data flow of the voice patient diary sample application

Reference: <https://aws.amazon.com/blogs/industries/voice-applications-in-clinical-research-powered-by-ai-on-aws-part-1-architecture-and-design-considerations/>

Goals:

- Solve the problem of low transparency in iPhone pricing, reviews, and feature comparisons in India.
- Offer an interactive dashboard using Tableau to visualize real-time and historical iPhone trends.
- Enable consumer decision-making and business intelligence for marketers/resellers.
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Technical Components

Layer	Tools & Tech	Description
Data Source	Flipkart, Apple Reports	Primary data on iPhone models, ratings, and pricing
Data Cleaning	Python, Excel	Handling nulls, formatting, merging
Storage	CSV, Excel, or Cloud DB	Pre-processed data ready for Tableau
Visualization	Tableau	Interactive dashboards with filters, trend lines, heatmaps
Access	Web/Local Tableau	Used by teams, customers, and analysts

Development Phases

Phase Task

Phase 1 Data collection and formatting (Excel/CSV)

Phase 2 Dashboard prototype with 2–3 key KPIs

Phase 3 Add interactivity: filters, dropdowns, regional insights

Phase 4 User testing and business feedback

Phase 5 Final deployment and documentation