Project Design Phase
Solution Architecture

Date	15 February 2026
Team ID	LTVIP2026TMIDS65560
Project Name	Educational Organization Using ServiceNow
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.
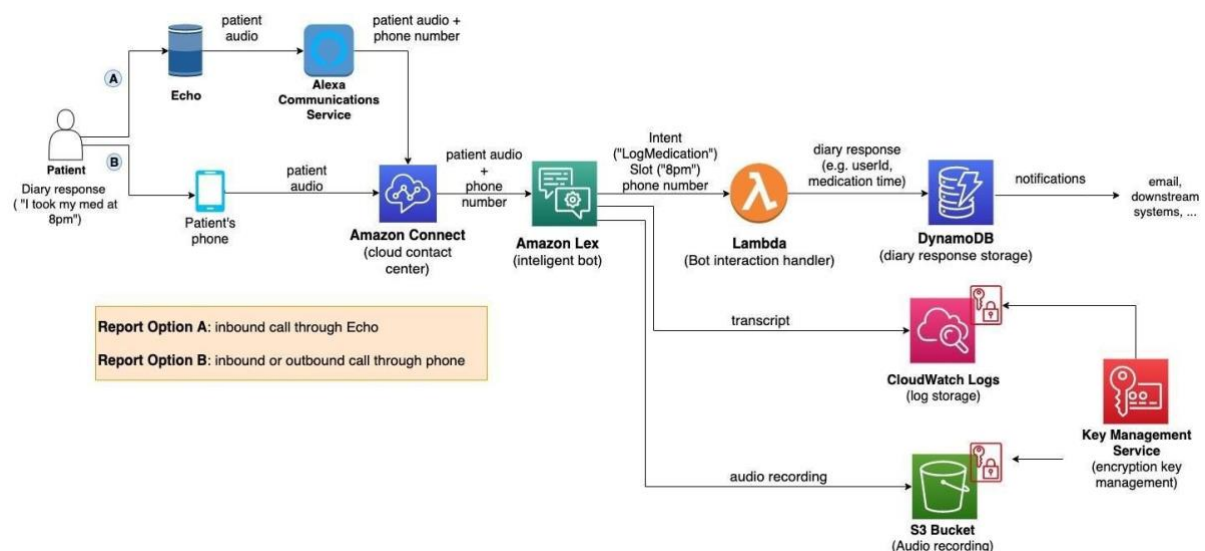
Example - Solution Architecture Diagram:

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

1. Presentation Layer (User Interface)

- Web interface for students, teachers, and administrators.
- Provides login, registration, dashboard, and service request forms.
- Technologies: ServiceNow Portal, HTML, CSS, JavaScript.

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2. Application Layer (Business Logic)

- Handles workflow automation and data processing.
- Manages student records, course details, service requests, and notifications.
- Provides role-based access for students, teachers, and administrators.
- Technologies: ServiceNow Platform, Workflow Engine, Server-side scripting.

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3. Data Layer (Database)

- Stores student information, course data, results, and service requests.
- Ensures secure and reliable data storage.
- Technology: ServiceNow Cloud Database.

◆ Data Flow

1. User submits request through web interface.
2. Application processes request using workflow logic.
3. Data is stored or retrieved from database.
4. System sends response or notification to user.

◆ Key Features of Architecture

- Cloud-based deployment
- Secure data management
- Scalable system design
- Workflow automation
- Real-time notification support

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