Project Design Phase-II
Solution Architecture (Functional & Non-Functional)

Date	20th October 2022
Team ID	PNT2022TMID14136
Project Name	DEMANDEST – AI POWERED FOOD DEMAND FORECASTER
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.

Functional Requirements:

Following are the Functional Requirements of the Solution Architecture.

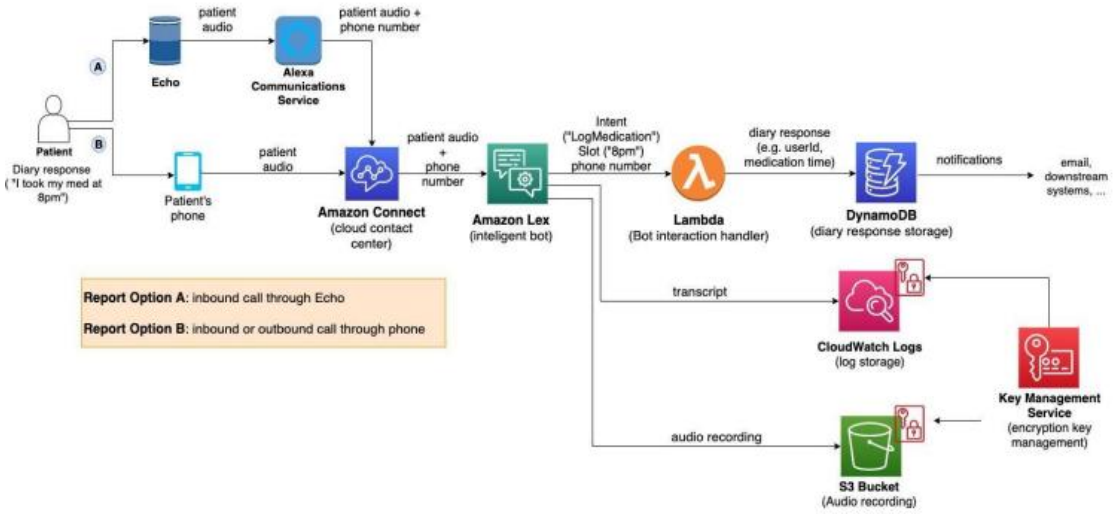
FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	**User Registration**	Registration through Form Registration through Gmail
FR-2	**User Confirmation**	Confirmation via Email Confirmation via OTP
FR-3	**Website Entry**	Collecting user's data and storing it in the Database
FR-4	**Permissions**	Location, Storage, Contacts

Non-functional Requirements:

Following are the Non-functional Requirements of the Solution Architecture.

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	Defines how difficult it will be for a user to learn and operate the system. Usability can be accessed from different points.
NFR-2	**Security**	Security requirements ensure that the software is protected from unauthorized access to the system and it's stored in data.
NFR-3	**Reliability**	Reliability defines how likely it is for the software to work without failure for a given period. Reliability decreases because of bugs in the code, hardware, failures and problems with other system component.
NFR-4	**Performance**	It is quality attribute that describers responsiveness of system to the various user interactions with it.
NFR-5	**Availability**	Services are available for use with all operations. Here the data is readily available. We can get data whenever it is needed.
NFR-6	**Scalability**	Scalability describes how the system must grow without negative influence on its performance. This means serving more users, processing more data, doing more transactions. In this model costumer gets benefits on analyzing their industry data and provides prediction on day to day analysis of food that sold and reduce the wastage of food by predicting its sales movements.

Example - Solution Architecture Diagram:



The patient dairy voice reporting interface can be accessed by patients using one of three methods supported by the application:

1. Making an inbound call on their landline or smart phone
2. Using a smart speaker like the Amazon Echo to place an inbound call
3. Receiving a call from an automated patient outreach scheduler using the StartOutboundContact API of Amazon Connect on their smart phone or landline (the outreach scheduler is out of the scope of this blog)

SUMMARY

We talked about the architecture and important factors to take into account when developing an automated, secure, and auditable application for reporting research patient outcomes using a conversational voice interface. By making reporting simpler and more accessible to more patients, for instance, this improves clinical research sponsors' and CROs' capacity to comprehend patients' experiences with study interventions and promotes compliance.