Project Design Phase-I
Solution Architecture

Date	02 October 2022
Team ID	PNT2022TMID37414
Project Name	Project – Visualizing And Predicting Heart Diseases
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:

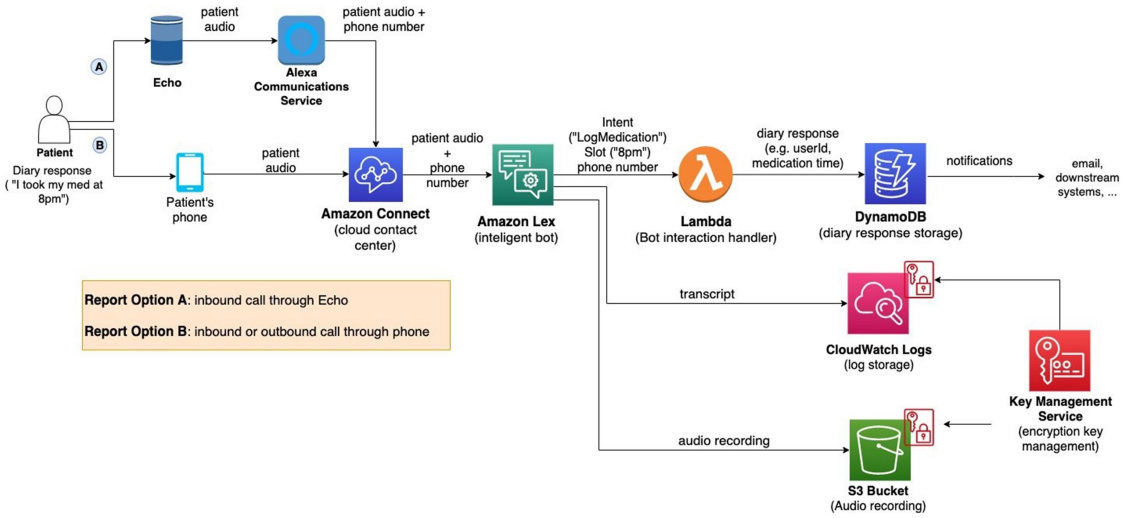
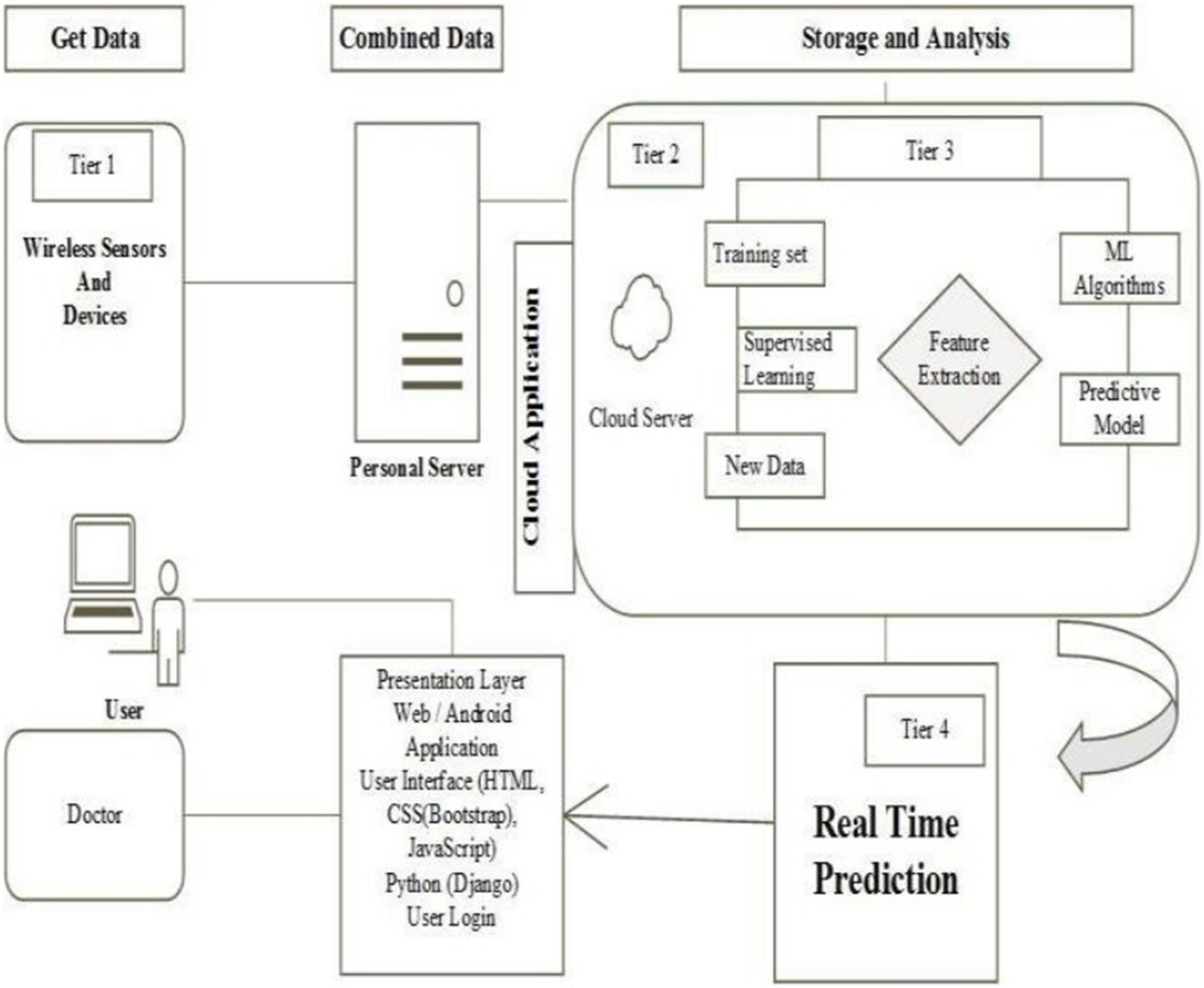


Figure 1: Architecture and data flow of the voice patient diary sample application

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

Visualizing And Predicting Heart Diseases



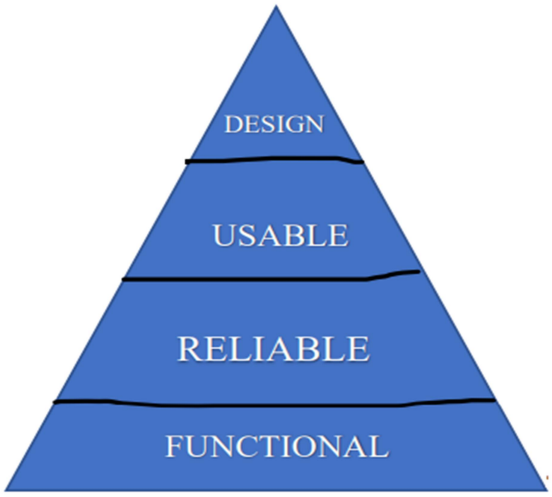
Do this :

1) DESIGN : These sensor-based projects include fighting robots to extinguish the heartbeat ,automatic detector used to avoid the occurrence of accidents.

2) USABLE : The need for an accurate, yet affordable ECG (Electrocardiogram) machine is necessary to ensure the quality of cardiovascular health of the average citizen.

3) RELIABALE : Accurate readings can be make or break for wearable devices because if a consumer or clinician can't trust the readings from the device, the credibility of the device is diminished very quickly.

4) FUNCTIONAL : measure heartbeat, blood pressure, footsteps, calories burnt and lot of other things. These devices has pulse sensor inside them to sense the pulse rate



NOT THIS:

1) DESIGN: the scheduler executes a method to send heartbeat messages .So this takes much time

2) USABLE: the failure detection mechanism has a similar scheduler started. At regular intervals, it checks if the heartbeat was received or not.

3) RELIABLE: The user may set the high and low level of heartbeat limits.

4) FUNCTIONAL: There are different functional offs. In general, the smaller the heartbeat interval, the quicker the failures are detected and the faster the failures are detected.