BAYMAX

A remote patient monitoring system

1. Problem Statement

The lack of remotely available medical platforms that provide medical consultation along with the transmission of body vitals gathered through sensors, with ML based predictions for those vitals hinders healthcare in Pakistan

2. Objectives

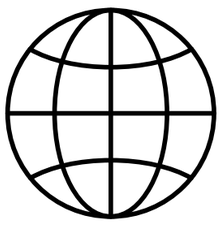
- Advance RPM with use of Baymax kit for reliable health tracking
- Enhance the precision of diagnosis and provide effective healthcare
- Offer timely on-spot insights via Baymax web portal and reduce response times of experts

3. Features

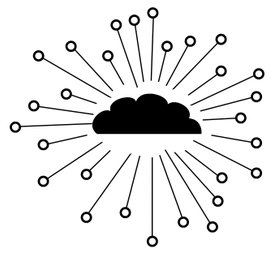
1. Remote Patient Monitoring and Appointments

2. Data Analytics & Model Predictions

3. Timely On-spot Insights and Secure Doctor's Consultation



4. Efficient Communication Channels

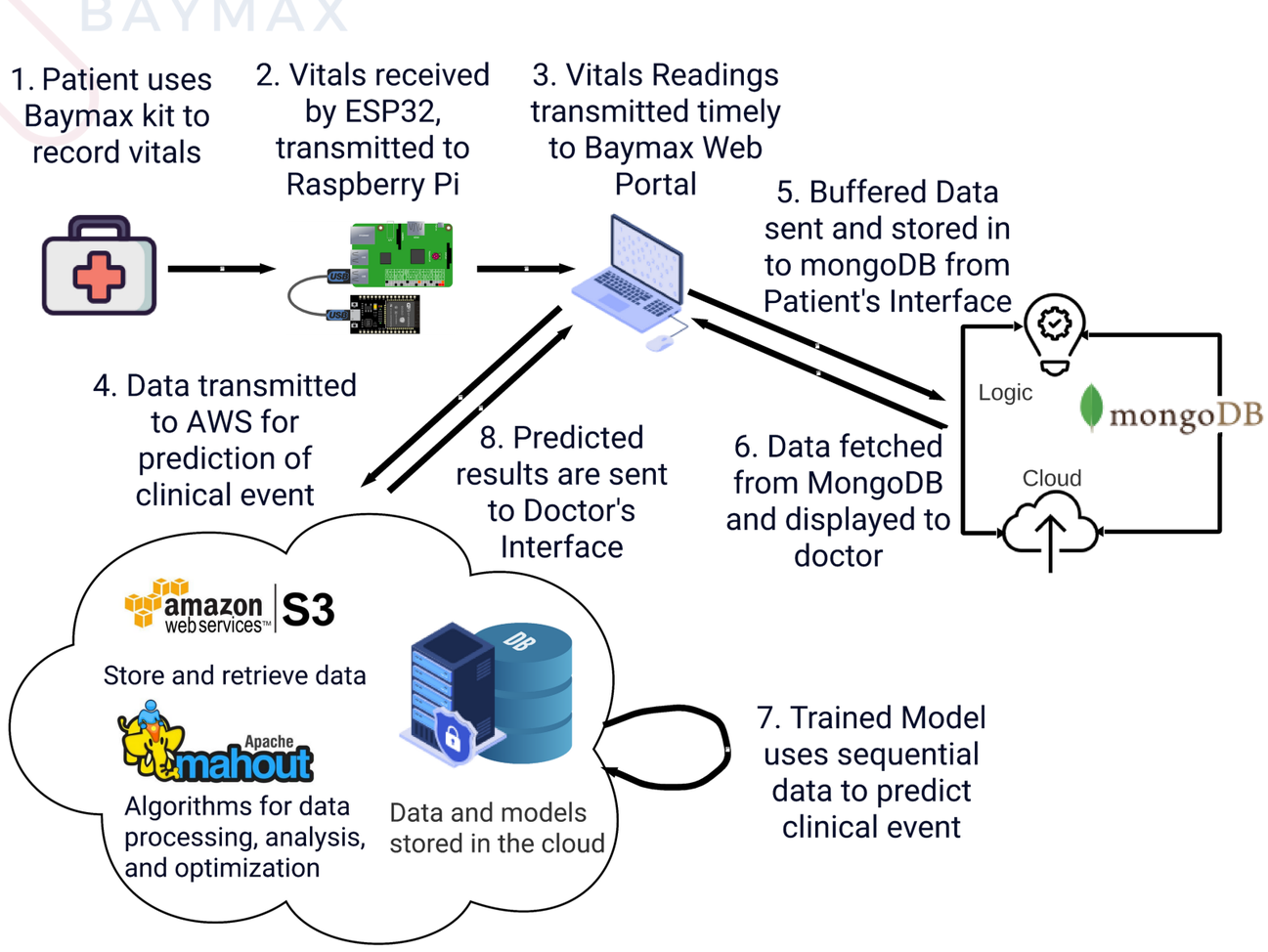


5. Secure Storage and Retrieval of Data

4. Methodology

The Baymax medical kit, collects body vitals using sensors. The measured vitals are sent via microprocessor to the Baymax Portal using web sockets, which are processed and stored in the cloud database. If patient allows data access to doctor, that data is retrieved from database, while the same data is processed by ML models and prediction goes to doctor for help

5. Architecture



6. Conclusion

Baymax is a complete package of medical kit to measure body vitals, along with access to a platform to send them to experts for remote diagnosis assisted by ML Technology and easy appointment scheduling and communication with health profes

7. Development Tools

ARDUINO · aws · MERN · Apache mahout · ESP32 · Raspberry Pi

Group Members:
Bisma Ijaz Vimal Syed Fazail Haider

Advisor:
Dr. Daud Abdullah

Co-Advisor:
Dr. Wajid Mumtaz