

Smart Health Prediction

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Abstract: Monitoring and recording of various medical parameters of a user at home outside hospitals has become a change in trend. The reason behind this task is to structure a framework for checking the patient's body whenever utilizing the internet. The capacity of this framework is to estimate some natural parameter of the patient's body like Temperature, Heartbeat, Blood, weight, by utilizing sensors and send the qualities to IOT Cloud stage through WIFI-Module. Cloud gathers these resources. Additionally, it supplies an administrative procedure and in the meantime, it gives services to trillions of clients.

Keywords: smart health, smart devices, temperature sensor.

1. Introduction

Innovation in technology has always been there to simplify and makes human life much easier. It has affected the various areas of life; the medical field is one of them. It benefits from the innovation in various ways; presently it is easier to diagnose internal diseases using some advanced smart devices.

The healthcare sector is experiencing a gigantic change, with digital abilities changing the manner in which users communicate with the application. Nowadays, users have devices to see their key vitals themselves and help themselves with vital information whenever needed in the form of wearable gadgets for example Apple watches.

The idea of the IOT involves the utilization of smart devices that capture or monitor information and are associated with a private or public cloud, empowering them to naturally trigger certain events. Medical data, for example, blood pressure and heart rate are gathered by sensors on smart gadgets; this information is transmitted to the software or third parties through wireless communication devices. The data are assessed for potential health issues by the software and warns the user for any health precautions.

2. Literature Survey

[1] hahab Tayeb*, Matin Pirouz*, Johann Sun1, Kaylee Hall1, Andrew Chang1, Jessica Li1, Connor Song1, Apoorva Chauhan, Michael Ferra, Theresa Sager, Justin Zhan*, Shahram Latifi, Toward Predicting Medical Conditions Using k-Nearest Neighbours, 2017 IEEE International Conference on Big Data.

In this paper, the researchers present how artificial intelligence applied to medical field for the efficient diagnosis. For that purpose they use a k nearest neighbours algorithm and they check the accuracy of the algorithm with the help of UCI

machine learning repository datasets. They had to generate patients input and test data for diagnosis. They use a real patient data. They add an additional training sets allow more medical conditions to be classified with the minimal no of changes to the algorithm.

[2] Home Based Health Monitoring System Using Android Smartphone, International Journal of Electrical, Electronics and Data Communication, Vol-2, Issue-2, Feb-2014, Sushama Pawar, P. W. Kulkarni In this paper the World Health Organization (2016) indicates that elderly people, who frequently suffer from chronic disease, require a highly effective and efficient provision of care using IOT Smart devices. According to the National Broadband Plan (2015) by the Federal Communications Commission (FCC), the use of remote patient monitoring under IOT technology will save the healthcare industry \$700 billion over 15 to 20 years. Then it is important to focus on the IOT technology to benefit from the most recent technology.

[3] Kakria, P., Tripathi, N. K., Kitipawang, P., A real-time health monitoring system for remote cardiac patients using smartphone and wearable sensors, International journal of telemedicine and applications, 2015, 8. In this paper it is said that it is possible for such patients to be followed up continuously with wearable health devices while maintaining their daily lives in the social environment. These wearable devices continuously measure the patient's heart values and, when a symptom of a heart attack has occurred, may send information about the patient's health condition to the family members and the doctor.

3. Problem Description

In hospitals or medical clinics, where patient's status needs to be routinely checked, it is generally done by a specialist or other paramedical staff by constantly observing a few significant parameters, for example, body temperature, heartbeat, and blood pressure hence, this task moves toward becoming tedious after at some point. Subsequently, it can cause issues. In any case, there are numerous specialists who have endeavored before to solve it in many perspectives, however, the prior techniques in a few cases either SMS will be sent utilizing GSM or RF module will be utilized to send patient's information from sender gadget to collector gadget. Besides, in the prior cases, the historical backdrop of the patient can't be shown, just current information is shown.

4. Product Description

Traditional healthcare services are unable to oblige everybody's needs because of the tremendous increase in population. Regardless of having excellent infrastructure, and cutting-edge technologies, medical services are not approachable or available to everybody. One of the objectives of this smart healthcare is to help clients by teaching them about their medical status and keeping them health-aware.

Smart healthcare empowers clients to self-manage with some emergency circumstances. By executing this project, it will offer a reasonable framework for remotely managing users wellbeing, which can save their lives by giving crisis alerts when diagnosed.

5. Screenshots

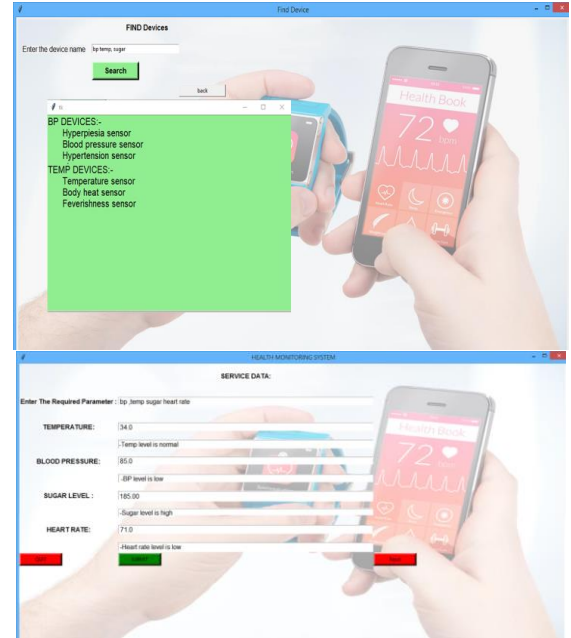
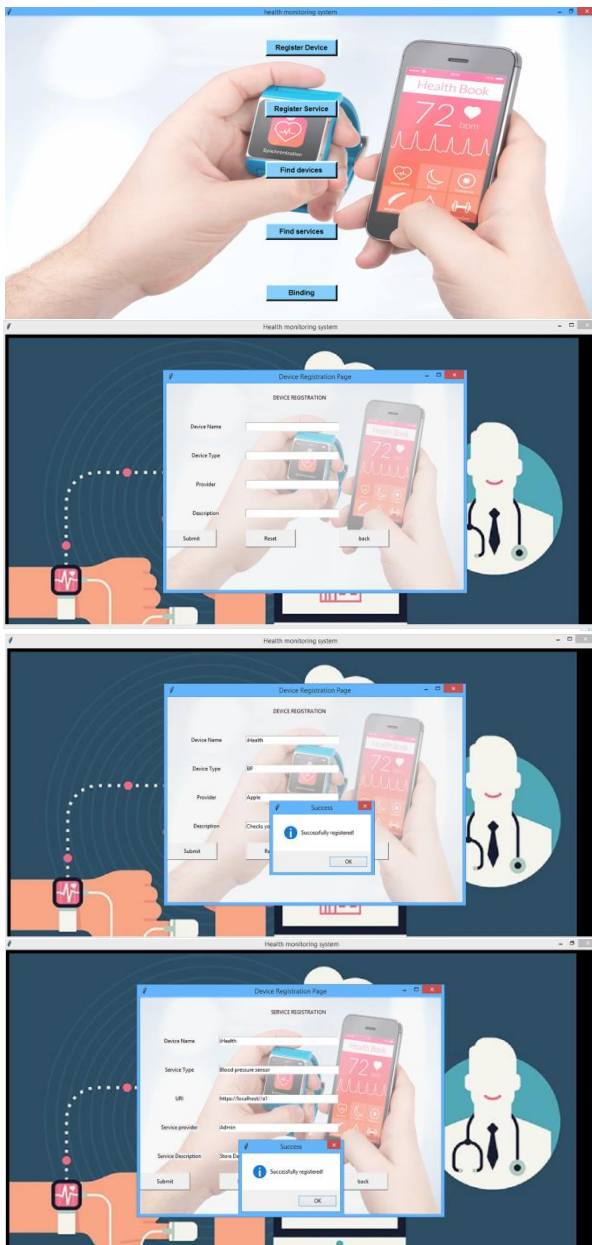


Fig. 1. Implementation

6. Conclusion

In this proposed framework a portable physiological checking framework is introduced, which can monitor users heart

Beat, blood pressure and other sensor based wellness features at home. The developed framework persistently measures the pulse and body temperature of the patient and gives checking and following up through a software interface. Thus this project helps in benefiting us in maintaining healthy.

References

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- [3] Sushama Pawar, P. W. Kulkarni, "Home Based Health Monitoring System Using Android Smart phone, *International Journal of Electrical, Electronics and Data Communication*, Vol. 2, Issue 2, February 2014.