IDEAS BASED ON THE PERSONAL ASSISTANCE WHO ARE SELF-RELIANT

IDEA 1-This is one of the interesting IoT project ideas to create. This IoT-powered health monitoring system is designed to allow patients to take charge of their own health actively. The system will enable users to monitor their body vitals and send the data to qualified doctors and healthcare professionals. The doctors can then provide patients with immediate solutions and guidance based on their health condition. The sensors in the application can monitor patient vitals like blood pressure, sugar level, and heartbeat. If the vital stats are higher/lower than usual, the system will immediately alert the doctor.

IDEA 2-The idea behind creating this system is to allow patients and doctors to connect remotely for the exchange of medical data and expert supervision. You can use this application from any location in the world. It is an Arduino-based project – the communication occurs between the Arduino platform and an Android app via Bluetooth.

This is one of the interesting IoT project ideas. This IoT-based alarm clock functions not only as an alarm clock to wake you up every morning, but it can convert into a fully-functional device capable of performing other tasks as well. The features of this smart alarm clock include:

* Voice command option to execute standard commands and also to initiate a video chat.
* A text-to-speech synthesizer
* Automatic display brightness adjustment
* Audio amplifier volume control
* Alphanumeric screen for displaying text
* Apart from these features, you can also add customizable features on the smart alarm clock. Interestingly enough, the alarm clock offers three ways of waking you up – by playing local mp3 files, by playing tunes from the radio station, and by playing the latest news updates as podcasts.

IDEA 3- Using wearable technology, watches and phones that have the Android operating system. The objective is to collect and process data from sensors placed in patients with medical conditions to detect or, ideally, predict episodes such as chronic obstructive pulmonary disease (COPD), seasonal affective disorder (SAD), and bipolar affective disorder (BAD). The smartphone requires users to complete a questionnaire that describes their health once per day. After finishing the questionnaire, patients are asked to blow into the microphone as a measure of their maximum expiratory flow. The data collected during the day are sent to a remote server to be analyzed [[14](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6631618/#B14-geriatrics-04-00034)]. When evaluated with patients, preliminary results indicated that they are willing to use this wearable device.

IDEA 4-his work defines a general architecture for unobtrusively collecting data coming from a heterogeneous sensing infrastructure. In particular, this work is focused on the first three layers of the proposed solution, the so-called Personal Data Capturing System (PDCS), the Shared Repository (SR) and the Risk Analysis Model and Monitoring Dashboards (RAMMD), shown in

The main task of the Personal Data Capturing System is to collect raw data from heterogeneous sensors deployed in physical environments (independently of both their specific technologies and communication protocols) and process them to calculate LEAs and Measures to be sent to the Shared Repository. The PDCS is internally composed of two main logical blocks. The Local Environment [Building Block](https://www.sciencedirect.com/topics/computer-science/building-blocks) (LEBB) provides a modular set of software components (generally installed on smartphones or embedded devices acting as gateways), which allows the communication with different sensing technologies according to the respective standards and protocols in a uniform way. This capability abstracts the heterogeneity of the physical devices and provides a high degree of expandability to include upcoming technologies. The LEBB core logic translates raw data into LEAs and sends them, through a well-defined REST APIs, to the Cloud Building Block (CBB). It is in charge of performing further computations in order to calculate Measures based on the given LEAs. Finally, the CBB is in charge of sending both LEAs and Measures to the SR.