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## **An innovative app based design for improving the health of human beings**

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### **Abstract**

In this paper, we present the design & development of a robust health wealth app that could be used by many of the human beings during the exercises, to keep physically fit, etc. The research presented in the paper highlights the creation of a health-wealth app. Smart phones and other contemporary handheld devices have recently increased in power. It's time to cease wasting resources because the world's resources are currently running out. One of the causes of depletion is people not knowing when consumables expire. This is because there are so many possibilities for materials now that it is difficult for people to remember when things expire. As a result, we are launching a mobile application that has the ability to track and add consumables' expiration dates. By providing health advice and intriguing life hacking tidbits, we also add a cool touch. Nowadays, individuals purchase items from the store and retain them for a number of days before using them, causing the item to expire and wasting resources. The other issue is that consumers often consume products that are too old and have health problems as a result. We want to cease squandering resources and have a healthy society. You can track, monitor, and manage your health using the Health Wealth Safe app, all from your phone. The effectiveness of the built app is demonstrated by the usage of the app by regular people after it was published to the play store. The work presented here is the mini-project work of the 2<sup>nd</sup> sem students of electronics & communication engineering department of dayananda sagar college of engg., bangalore.

**Keywords**—Health, Wealth, App, Fit, Medicine, Biology

### **1. Introduction**

In this section, the design & development of a robust health wealth app. A brief overview is presented in this introductory note in this context. An overview of the background research for the work done in this paper is provided in this section. We are working on an open-source software programme for Android development that will track and alert users when consumables are about to expire. It also includes an interesting feature that provides us with some advice and information on how to keep a healthy diet. Since we wanted to create a socially beneficial application, we decided that dietary habits and general health would be the ideal subjects to explore for such a project.

We would want to draw attention to the fact that many elderly people are living alone in their homes or in nursing homes nowadays, and they need to take care of themselves. As people age, they have a propensity to forget to take their medications as prescribed. Older folks also have a tendency to overlook the expiration date on consumables. Senior citizens also frequently put off placing new orders for the consumables they need on a daily basis [1].

An application called Robust was created to maintain food facts added to the application's database and is constructed in the Kotlin programming language. Its goal is to control the food quality that users submit into the application's database. If the consumable product is getting close to expiration, it alerts the user. The application's database is made up of the food items that a user can add or remove at any moment. The user enters information about food items, such as expiration dates. The application has a feature that allows users to classify food into a variety of already existing categories [2].

## **2. Issues with the design considered**

The fundamental issue nowadays is resource conservation because those resources are running out. Even taking care of our medication schedule is necessary for maintaining our health. Older adults and even some young individuals have a tendency to forget that they need to take their medications at the right times, which has a very negative impact on their health. People frequently throw away or mistakenly consume expired goods, therefore we aid them by notifying them when the goods are about to expire as soon as they add the expiration date when they have purchased the goods [3].

We want to assist society with these issues so that we can prompt users of our app to remember when to take their medications. By informing us of the expiration date of consumables, this project aims to assist consumers in keeping track of their inventory. Therefore, the consumer must enter all information regarding the expiration date, product name, quantity, and dosage instructions. When it's time to take medications or the product is about to expire, the application notifies the user on the mobile phone and provides the necessary information [4]. The programme maintains all the data with the correct date and time.

We even provide them with some health information and advice to assist them live a healthy lifestyle and eat properly. People do stop looking for health tips because many of them are challenging to implement, but we can help them by providing a few excellent and simple health tips that are very beneficial and simple to implement. These guidelines and information are relatively straightforward but fascinating to follow [5].

Tech Stack - JetBrains, the company that created world-class IDEs like IntelliJ IDEA, PHP Storm, Application code, etc., has created Kotlin, a statically typed, general-purpose programming language. It is a brand-new JVM language that JetBrains unveiled in 2011. An object-oriented language is Kotlin. In particular for the purpose of displaying documents on the internet, XML is a metalanguage that allows users to design their own customised markup languages. On Android, you can utilise a coroutine, a concurrency design pattern, to make asynchronous function execution simpler. The coroutines feature in Kotlin was introduced in version 1.3 and is based on well-known ideas from other programming languages [6].

Coroutines on Android are used to manage lengthy processes that would otherwise snarl up the main thread and render your application unresponsive. Coroutines are used by more than 50% of professional developers, and they claim to increase productivity. This subject explains how Kotlin coroutines can be used to solve these issues, allowing you to create application code that is cleaner and shorter [7].

## **3. Flow-Chart/Data Flow, Algorithm / Diagram**

The data flow diagram or algorithm created for the development of the Android app for the health sector is presented in this section is developed. First, the following procedural aspects are carried out in order to strengthen and improve the app's usability. We first enter the product's expiration date, and then we enter the dosage instructions. Second, after the user enters the data, the programme will store it all. Thirdly, the app will remind users to take their medications as prescribed by sounding an alarm. This alarm will also show when a medication is about to expire or may be out of stock. The process is then stopped when we add the item to the shopping cart and discard the expired medication [1]. Robust is a strong and sound word. The Fig. 2 & 3 gives the features of the app that is being developed by the students [9].

#### 4. Conclusions & applications

The last, concluding observations on the work are offered in this part, along with the potential for further research in this fascinating area of app development. The application also offers us health information and advice for leading healthy lives. We want to incorporate alarm music as a notification feature. QR Code scan is shown in the Fig. 1.



Fig. 1 : QR Code scan for starting the game.

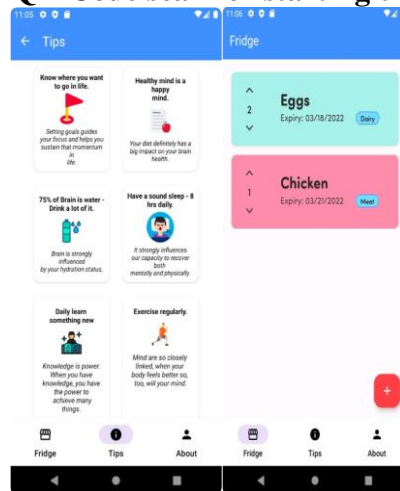


Fig. 2 : Features of the App

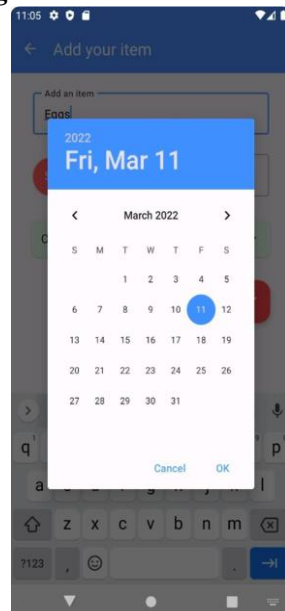


Fig. 3 : Start Screen for game by entering the date first & next other items

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