



Time to Move

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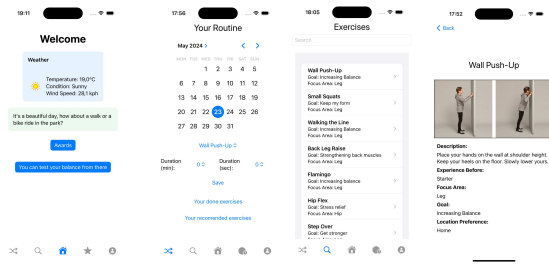
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Project Description / Objectives

- Time to Move is an IOS application focused on promoting healthy aging and fitness by providing personalized exercise recommendations, correct movement guidance, progress tracking, motivational features, and interactive coaching services, ultimately aiming to facilitate regular exercise routines for users of all ages and fitness levels.
- The expected outcomes of the project include the development of a dynamic and personalized exercise program tailored to users' individual data, aimed at promoting positive physical effects, alongside features that transform the health coach into a digital motivator, facilitating adherence to exercise routines for users facing difficulties in maintaining consistency.



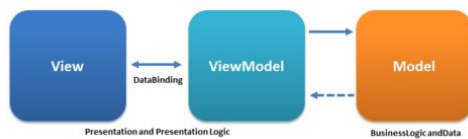
System Design

Swift is used as the core programming language, which is an essential component to develop an IOS application.

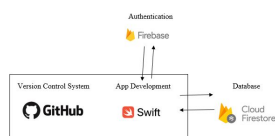
Firestore Console offers real-time database which syncs the data all over the users' devices.

The MVVM (Model-View-ViewModel) architectural pattern is used because it facilitates separating the development of the GUI, data logic and the connection between them which makes the code more maintainable.

XCode integrated development environment is used because of its vast tools for building, testing and debugging.








System Architecture



- Time to Move is developed using Swift. Data store is handled with Cloud Firestore which offers real-time database functionality. User authentication is handled by Firebase which secures identity verification. To facilitate group work, all progresses are committed and pushed to GitHub.



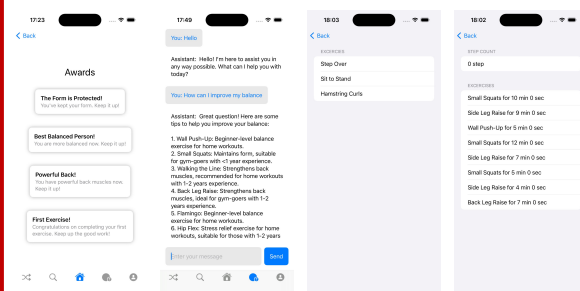
Methods

- IOS Development: Swift 
- User Authentication: Firebase Auth 
- User Information Management: Firestore Database 
- Chatbot: GPT4All with Python 
- Chatbot Integration into Swift: Flask Local Server 

Results

The aim of our project was to encourage people to move regularly and to increase their motivation in this way. Looking at the results, someone who started using the application

- Users can access all the exercises they wish to work on.
- They can save their purposes for starting to move in the profile preferences section and with their given preference information they can receive personalised exercise recommendations accordingly.
- They can easily save the exercises they have done and access information on the exercises they have done in the past through the calendar from the personalized routine page.
- They can get exercise suggestions according to the daily weather.
- They can earn rewards according to the exercises they do and save for increasing their motivation.
- The application can measure balance easily for people and quickly in the balance section for people who are interested in increasing their balance.
- And for all kinds of questions and guidings, they can contact our chatbot and find answers



Acknowledgement References

Pay Attention to use IEEE format for references: <https://iee-dataport.org/sites/default/files/analysis/27/IEEE%20Citation%20Guidelines.pdf>