Myovolt User Trial App

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ABSTRACT

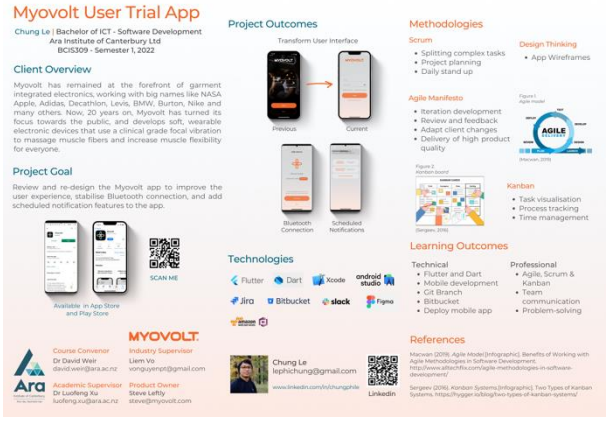
This paper describes the journey of building an app for Myovolt as my capstone project. Myovolt remained at the forefront of garment-integrated electronics, working with big names like NASA Apple, Adidas, Decathlon, Levis, BMW, Burton, Nike and many others. Now, 20 years on, Myovolt has turned its focus toward the public and develops soft, wearable electronic devices that use a clinical-grade focal vibration to massage muscle fibers and increase muscle flexibility for everyone (Myovolt, 2022). My capstone project has involved reviewing and improving the Myovolt app, through which I have gained mobile development knowledge and skills, including using Flutter, AWS, Bitbucket and SQLite. I used hybrid methodologies including Agile, Scrum and Kanban to manage the project.

Keywords: Mobile Development, Flutter, Bitbucket, Git Branch, Design Thinking, Agile, Kanban.

1. INTRODUCTION

Many people have started finding solutions to improve their movement and re-claiming their active lives. However, many problems could be the barriers to stopping them from being pain-free and doing some simple activities. Myovolt aims to develop wearable technology products to improve people's performance, health and well-being daily. The devices will help people to relieve soreness and stiffness anytime, anywhere. Myovolt also develops an app to control the devices. The app allows users to run different programmes to fit their references, monitoring the usage data and creating reminder notifications.

The Myovolt app is available for both IOS and Android phones, and it has a bright and clean theme which matches the Myovolt logo. The app provides the authentication features to store and secure your usage and programme data, so users need to sign up for the account and log in to use the app. The app has three main screens: Stats, Programmes, and Setting. The Start screen shows the usage data, including how long users have used Myovolt devices. The Programmes screen lists all available programmes (Warm Up, Recovery, Custom), and the Setting screen shows the list of setting options to connect Bluetooth. There is also a Notifications screen which allows users to create their scheduled notifications to remind them using Myovolt. Each running programme screen shows the counting down of the lock to report the remaining running time.



2. TECHNOLOGIES

Myovolt User Trial App is a cross-platform application. The app was built by Flutter and using Dart programming language. For authentication, the app uses AWS Cognito services; users will receive the activation code when signing up for a new account with their email and using email to log in. It uses SQLite for the database and stores data in the AWS S3 bucket. I use Android Studio for developing the app and storing source code in Bitbucket.

For testing, I used black-box and manual functional testing. I created a black-box template with a list of steps for users to go through and answer questions. The manual functional testing is the list of questions and steps for testing the Bluetooth connection; the testers will follow the action steps and record the result.

The app was published in App Store for IOS devices and the Play Store for Android devices.

3. PROCESS INVOLVED

Developing the app began by interviewing the Product Owner to understand Myovolt's current problems and requirements. After the interview with the Product Owner, I created a wireframe in Figma based on the

needs and sent it to the Product Owner to get feedback. After a few iterations of the wireframe, the Product Owner was satisfied with the final design, and I moved to the developing process. From the final version of the high-fidelity wireframe, I start developing the app, which transforms my design into an actual product. During the development, I applied several methodologies like Agile, Scrum and Kanban to make sure I would meet the deadline and all requirements. First, I use Scrum to plan all the steps and features I need to deliver for the app. After I have all the features, I will break them into smaller and achievable steps to track the performance, then group them into a two-week sprint and display the tasks on the Kanban board. I will active the Sprint and complete all the tasks in two weeks. I also follow standard requirements such as Git Branch and code review with the Industry Supervisor.

4. CONCLUSION

These Myovolt User Trial App planning and development assisted me in understanding the process and steps of creating the actual mobile app from beginning to end. I have learned how to interview clients and understand their problems. I also learned about how to be professional in the actual industry. During the planning activities and using the design thinking methodology, I have understood how to transform Product Owner requirements into a wireframe to present my ideas and assisted in explaining to the Product Owner the solution better. The application development and testing activities assisted me in reaching the goal of learning and practising “IT professional practices”. The Myovolt User Trial App published in App Store and Play Store is my most significant outcome that successfully meets the requirements given by Myovolt Limited.

REFERENCES

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