

Fitness Data Plattform

Students



Joel Suter



Lucas von Niederhäusern

Initial Situation: Today's world and day-to-day life are increasingly digitalized, with gadgets and devices that help with all kinds of tasks. This also includes the world of sports and health. The demand for trackers like smartwatches that monitor a person's vitals, fitness routine, and more shot up in the last few years. We envision massive potential in services and software in this domain. One of these potential services is a platform where users can synchronize multiple smartwatches or fitness trackers, view the data of these gadgets in a unified dashboard, and share their data with their fitness trainers, doctors, or friends.

Objective: With this project, we aim to build a basis for a platform of this type. The main goal is to create an extendable infrastructure and code that can be further expanded upon. That means we want to provide an initial platform that allows users to synchronize and save their data. The user should be able to view a dashboard where merged data of different trackers is displayed. He should be able to share it with the users he chooses. The platform must be structured to enable new features to be added easily in the future.

Conclusion: In this project, we created a prototype for a Fitness Data Platform by using Typescript, Node.js, React, and MongoDB. Our prototype is a web application divided into frontend, backend, and a Non-SQL database. This platform allows users to synchronize their Fitbit Connect and Garmin Connect accounts, view their weekly step count merged from multiple devices in a unified dashboard, and share these dashboards with other users by distributing their unique identification codes. Future implementations include additional support for other fitness tracking devices, more data on the dashboard, and being able to customize dashboards.

Advisor

Prof. Frank Koch

Subject Area

Internet Technologies and Applications, Software, Miscellaneous

Project Partner

AdaptIT GmbH, St. Gallen

MongoDB

<https://www.mongodb.com/brand-resources>



TypeScript

<https://commons.wikimedia.org>



Dashboard

Own presentment

