

Orbio Digital Biomarker Dashboard

Fundamentals of Web Engineering - Milestone 1

Helena Kaikkonen, Jianing Xu Wang, Benjamin Biberstein and Nikita Zubairov

The Use Case

A long time ago



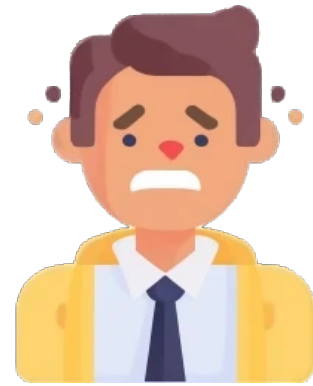
The Use Case

A long time ago



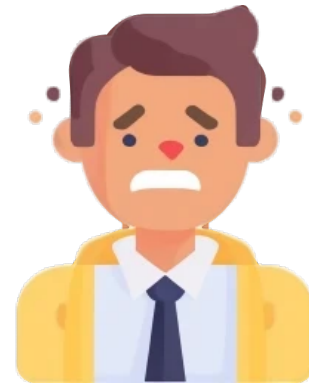
The Use Case

A long time ago



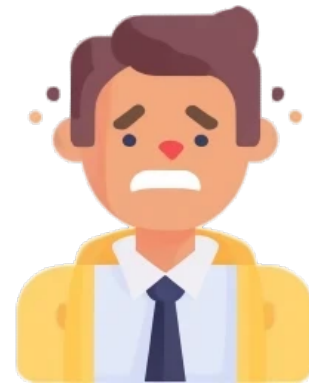
The Use Case

A long time ago



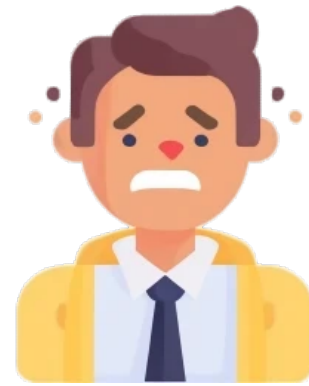
The Use Case

A long time ago



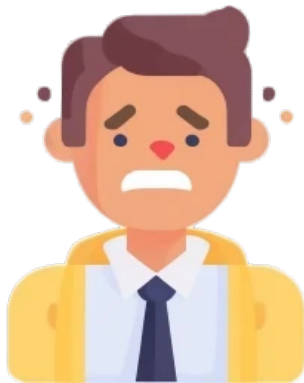
The Use Case

A long time ago



The Use Case

A long time ago

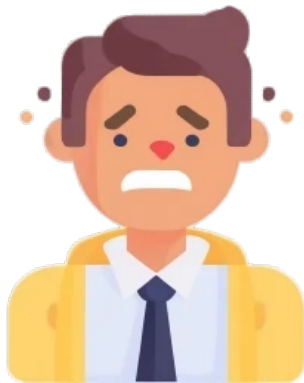


Nowadays



The Use Case

A long time ago

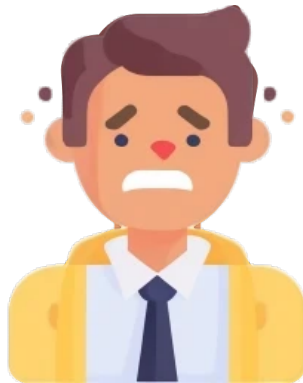


Nowadays

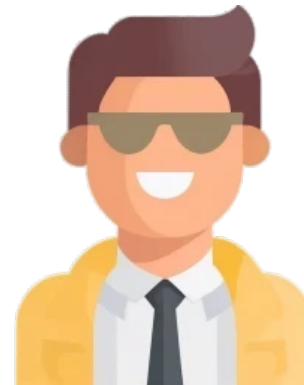
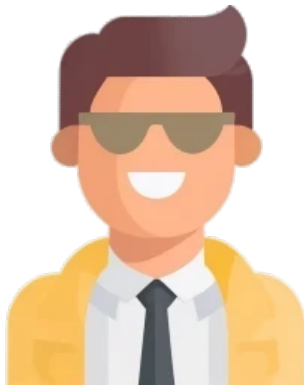


The Use Case

A long time ago

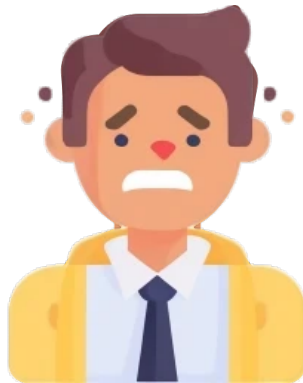


Nowadays

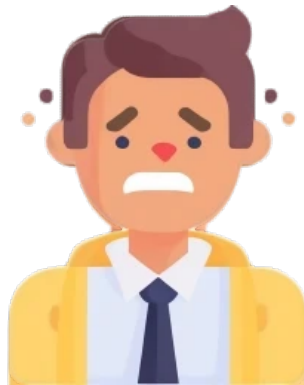
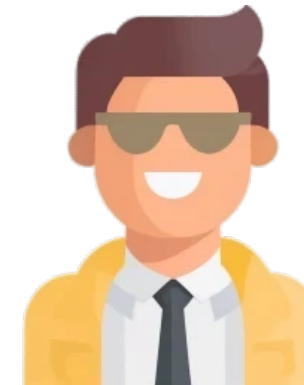
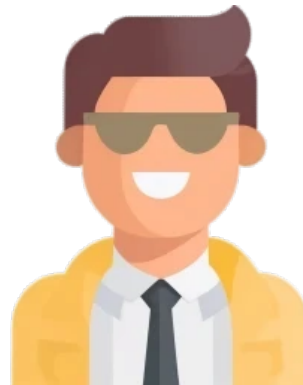
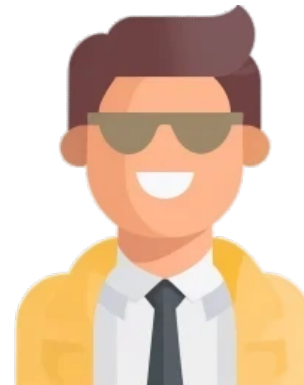


The Use Case

A long time ago

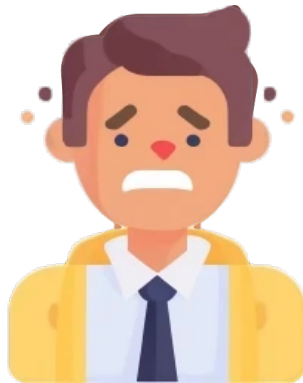
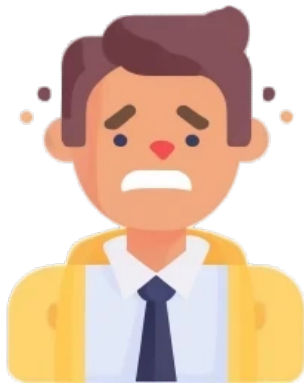


Nowadays

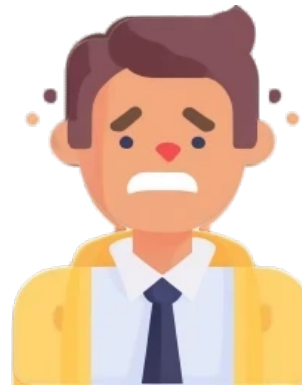
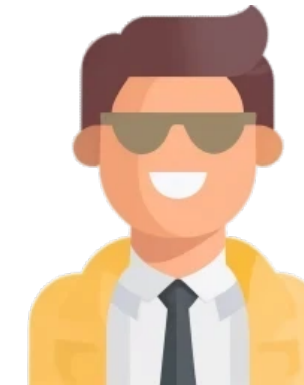
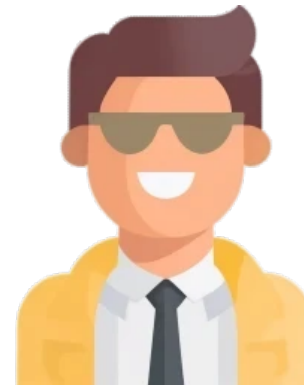
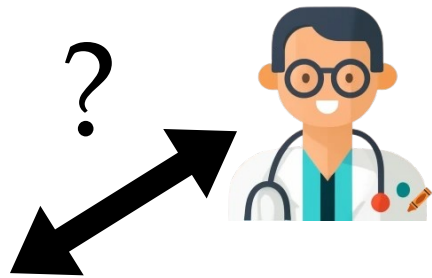


The Use Case

A long time ago

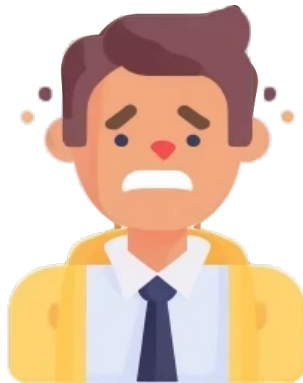


Nowadays

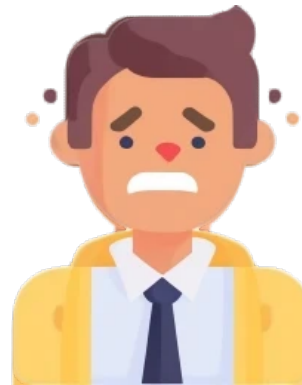
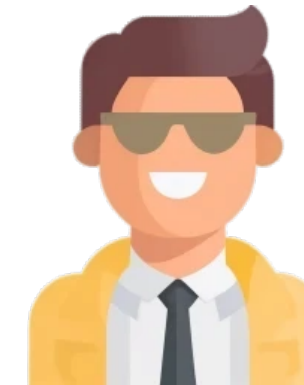
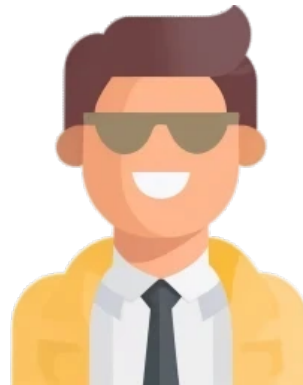
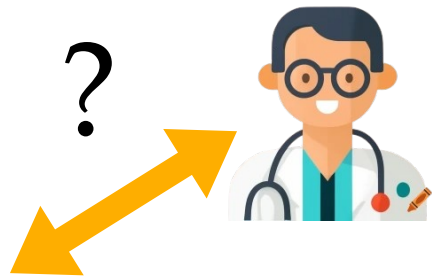


The Use Case

A long time ago



Nowadays



Custom Canvas

Problem Definition

Make Digital Biomarker data accessible to experienced and unexperienced users and their physicians and principal investigators

Stakeholders

- Smartwatch users
- Physicians
- Principal Investigator

Stakeholder Needs

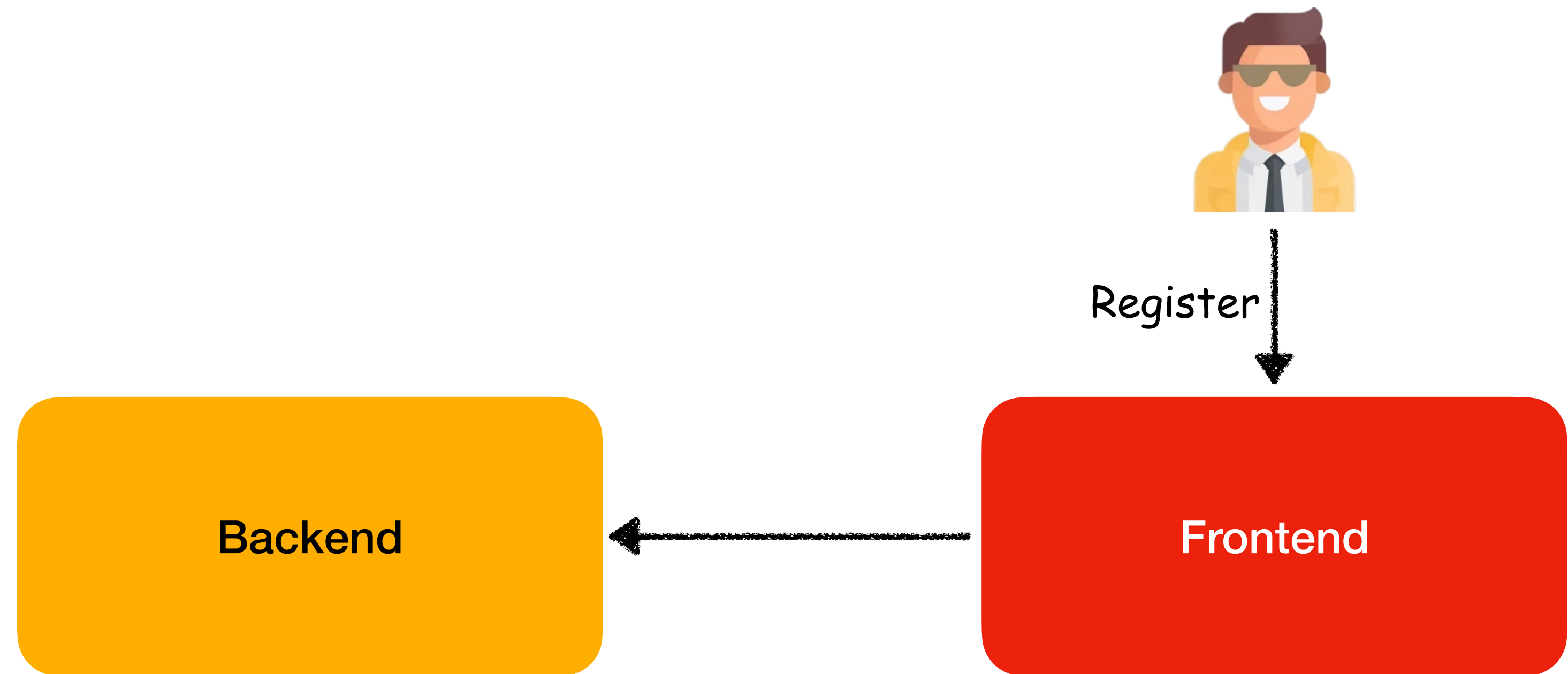
- As a unexperienced smartwatch user I want an easily integrable web dashboard that shows understandable summaries beyond my average health app to give me a deeper insight in my current health status
- As an experienced smartwatch user I want an advanced web dashboard that displays state-of-the-art health metrics and provides access to my biomarker data to pursue my own projects
- As a Physician I want to easily access my patients biomarker data and summary statistics to derive conclusions for the patient's diagnosis

„As a PI, I want to easily configure study apps for data collection, visualize participant adherence and data coverage, and deploy novel digital biomarker models for validation in real-world settings.“

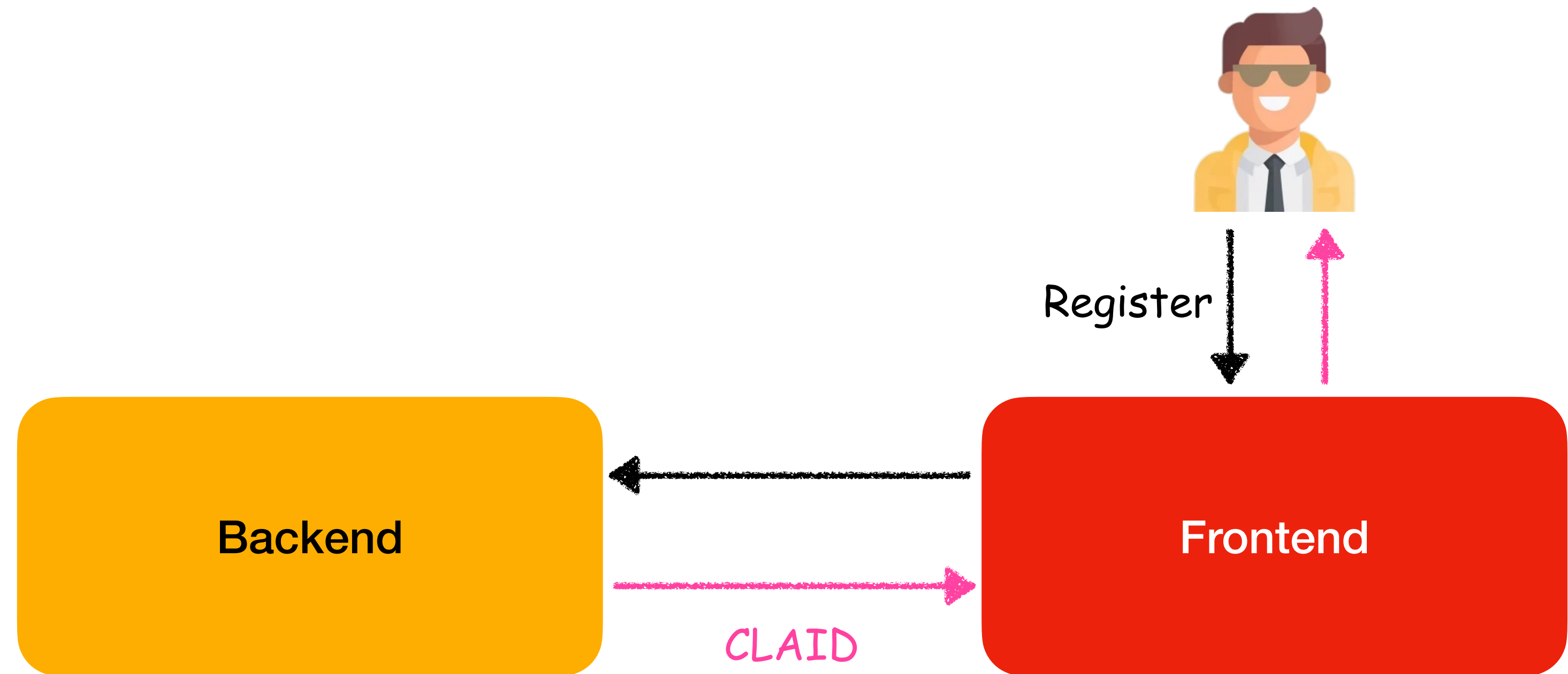
Patrick Langer - Researcher at Center for Digital Health Interventions @ ETH Zurich

Our Solution - Setup

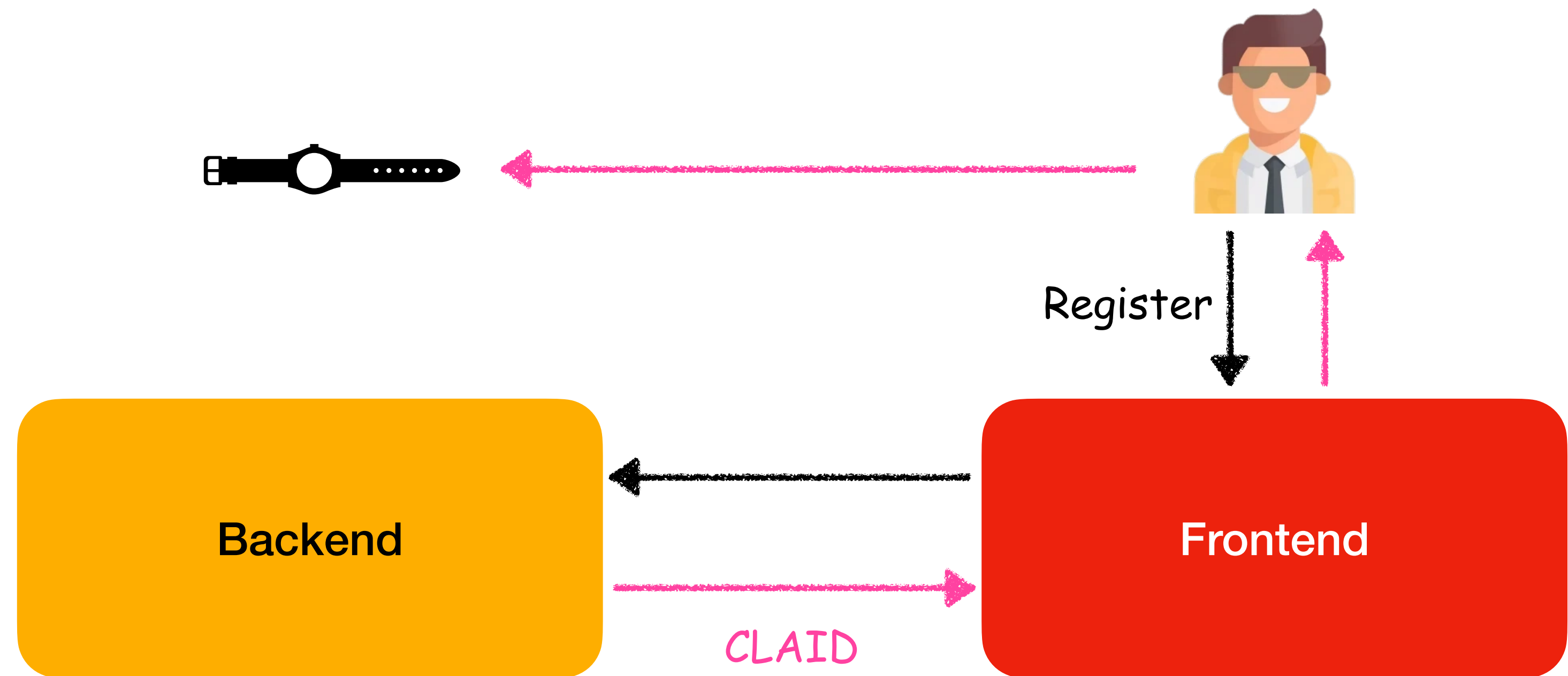
Our Solution - Setup



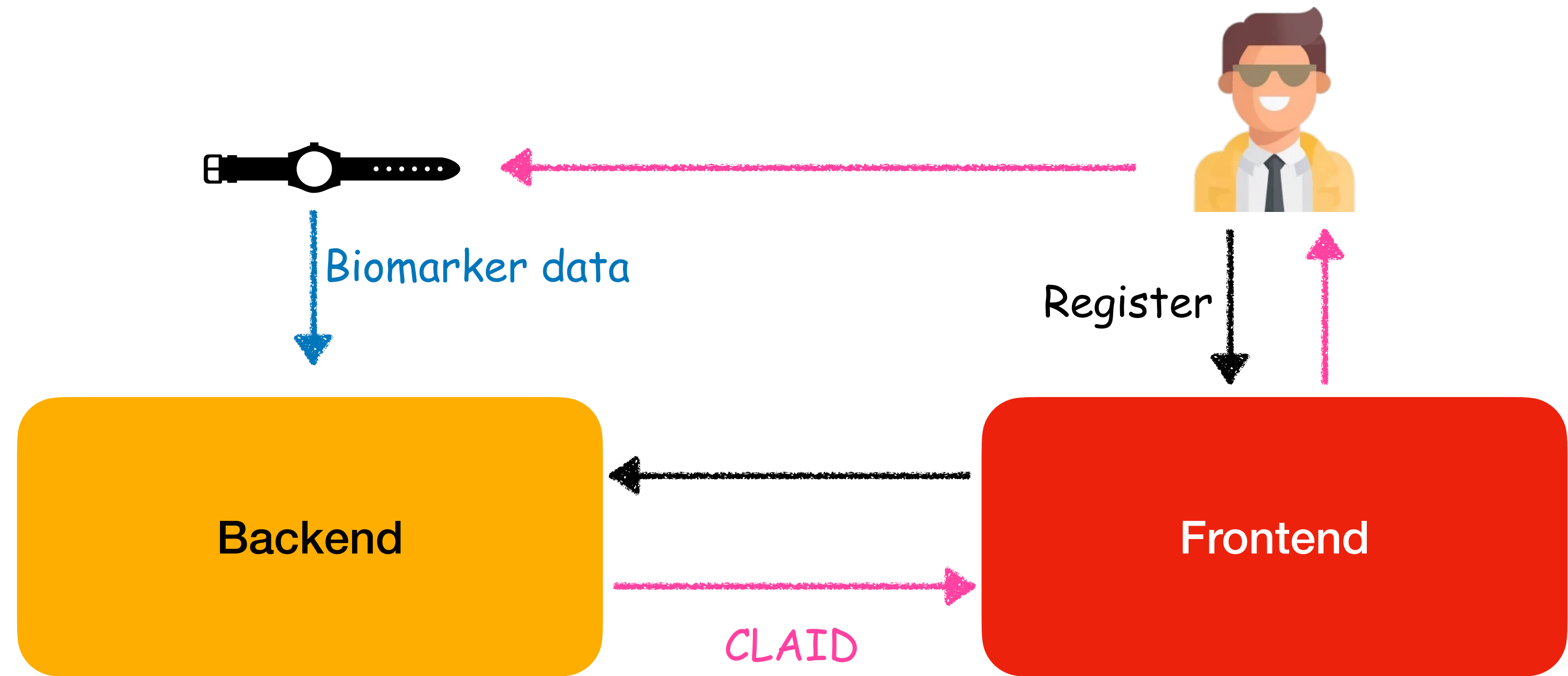
Our Solution - Setup



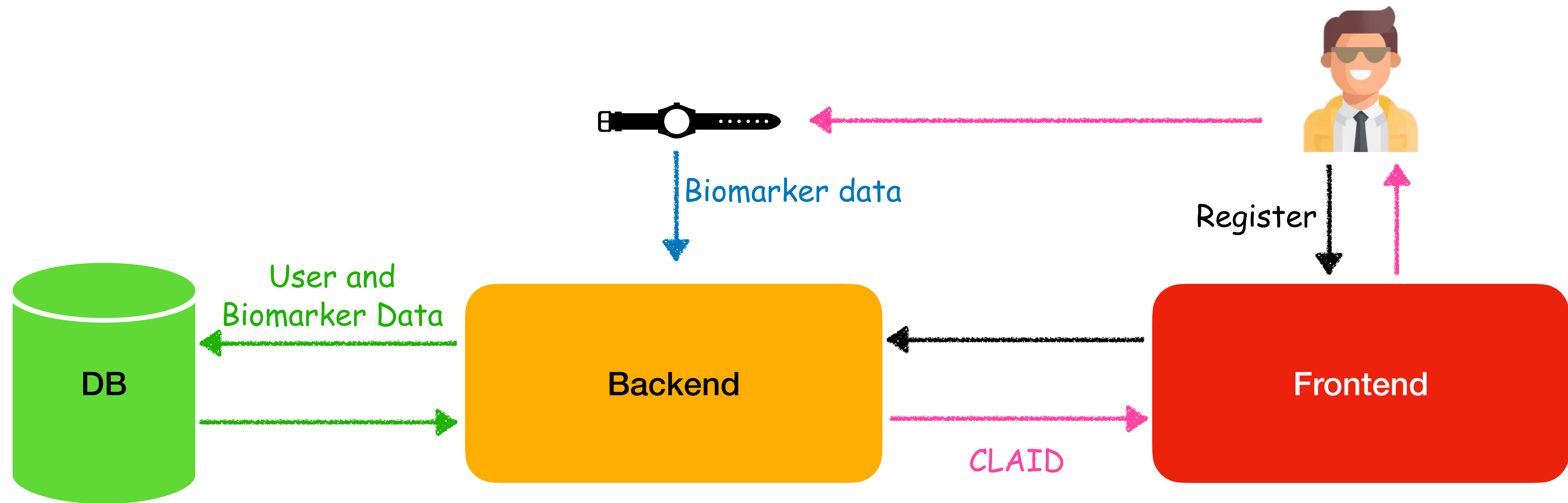
Our Solution - Setup



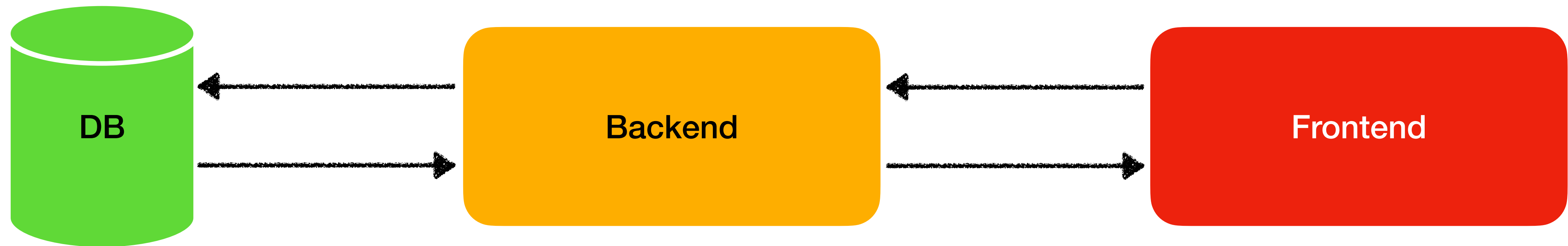
Our Solution - Setup



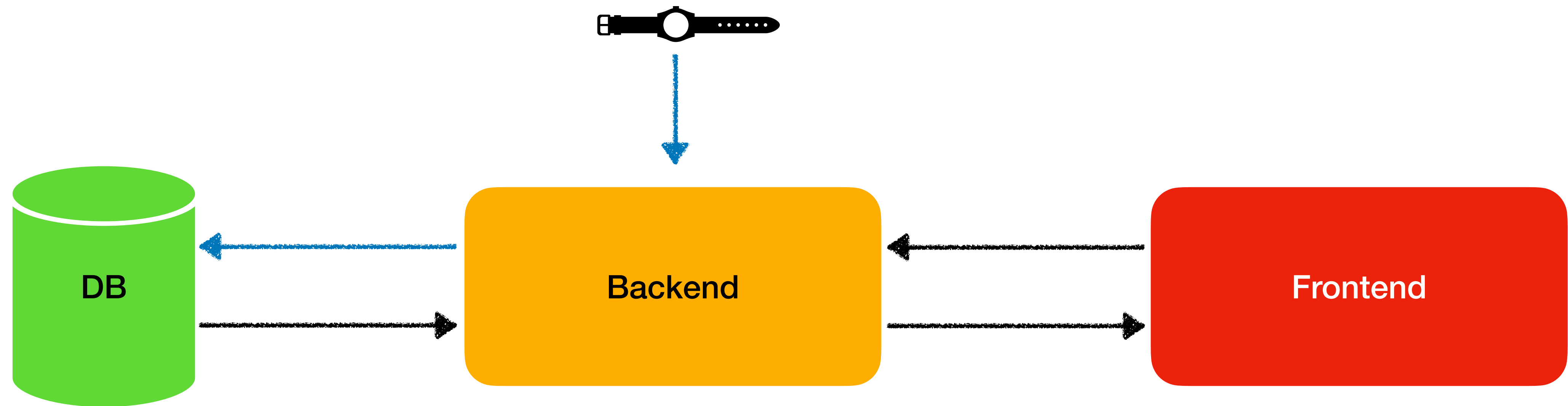
Our Solution - Setup



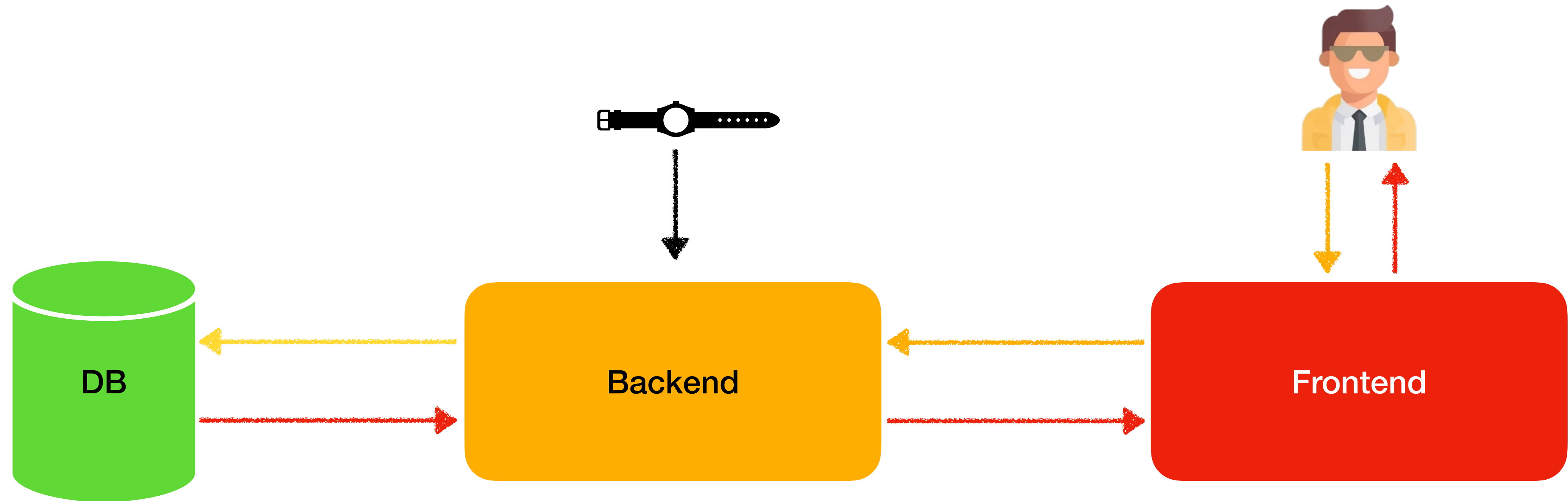
Our Solution - Usage



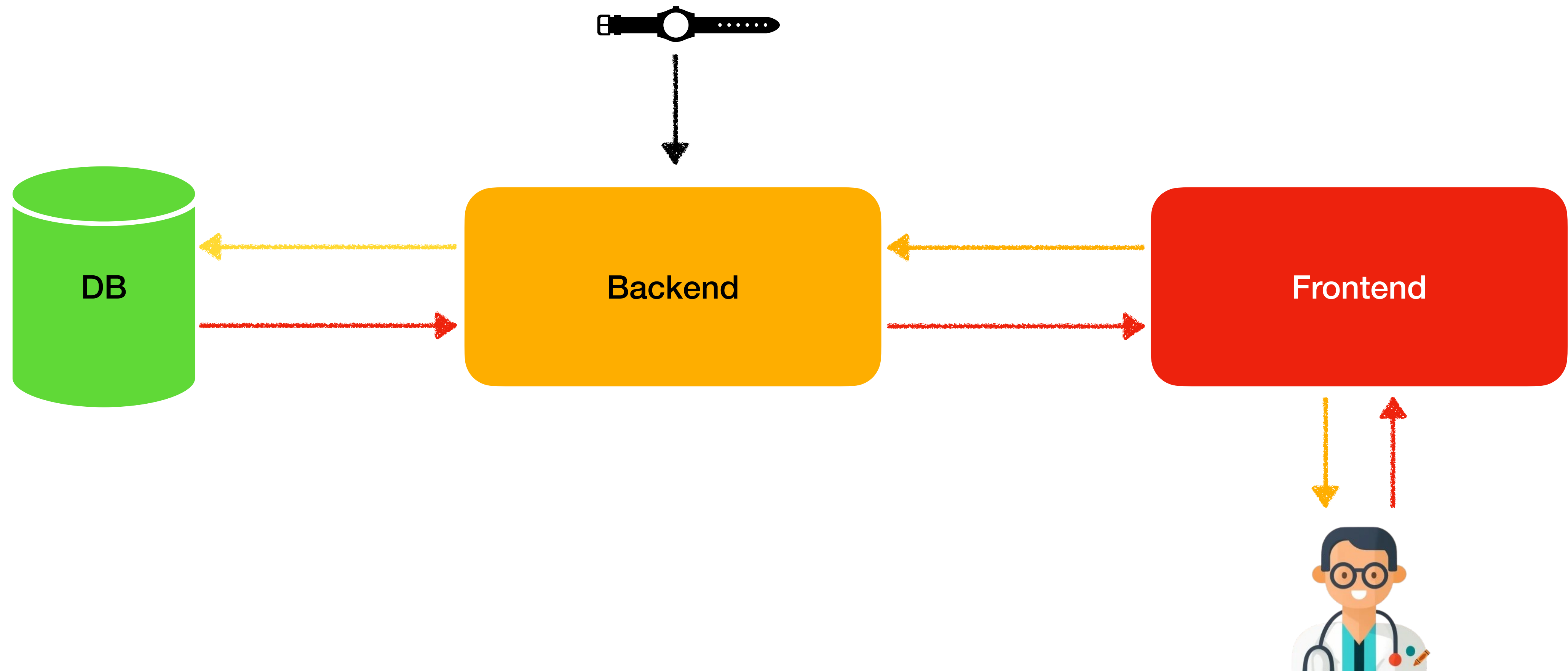
Our Solution - Usage



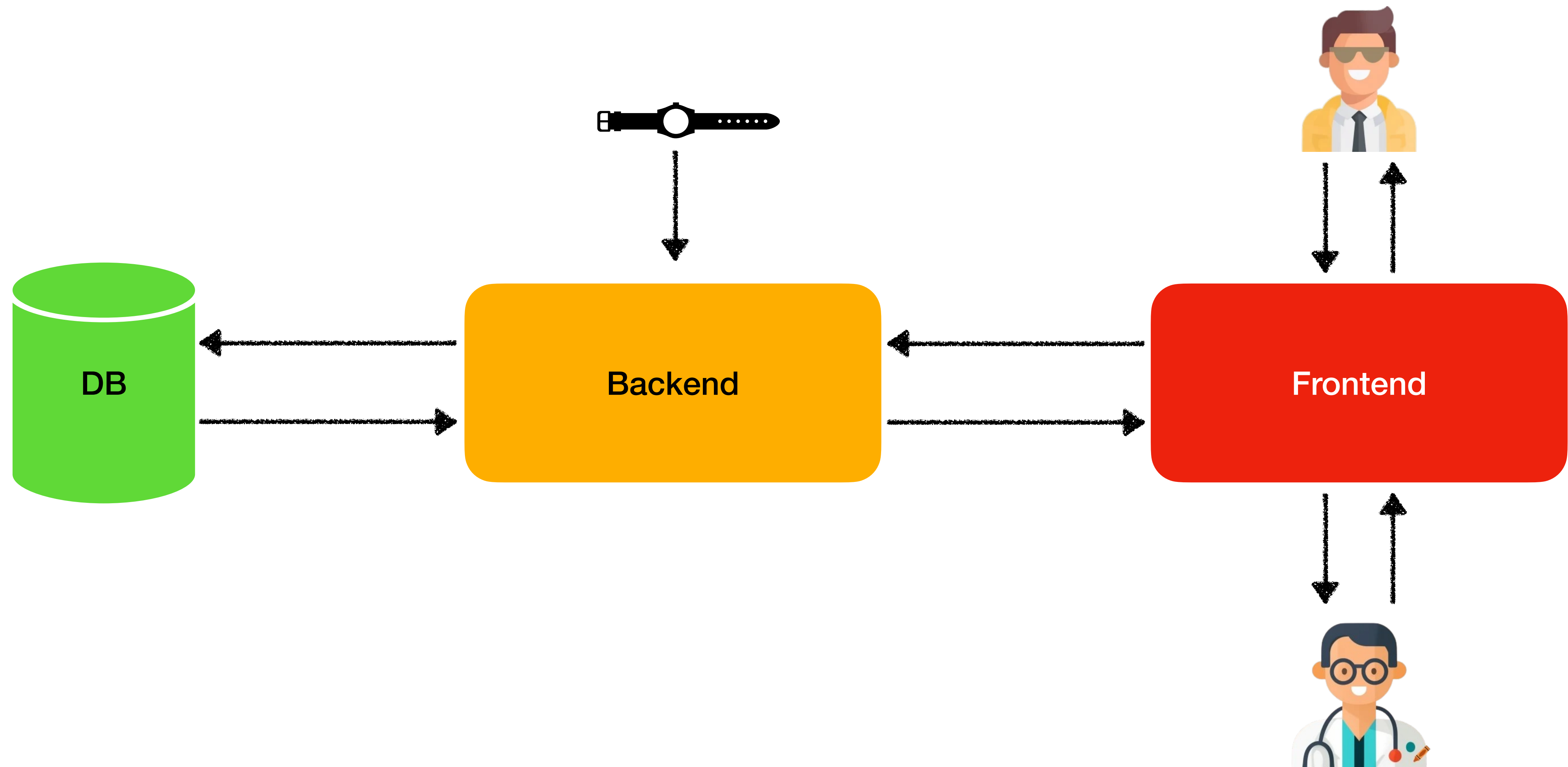
Our Solution - Usage



Our Solution - Usage



Our Solution - Architecture



Figma

Accessibility

- WCAG standard
- For visualizations:
 - Use legends and labels
 - Present data in multiple formats
- Alternative text
 - Use a charting library that can generate descriptions
OR
Algorithmically create a description that includes key points
 - Prefer multiple simpler visualizations
 - Manual testing

