Vital

github.com/ethanAmitchell/sensor-clock

Vital exists to use long term trends to assess patient risk, perfect drug dosages, and analyze general patient health.

Using a blend of smart-watch data and self-reported data, Vital's algorithms assess a patient's risk potential for an impending heart attack, underlying undiagnosed issue, or drug imbalance. Vital serves geriatric physicians and palliative care doctors alike.

Vital collects and analyzes heart rate, oxygen saturation, body temperature, and activity data from a user's smart watch to develop a unique set of risk scores for a patient. Current scores and algorithms include the Heart Attack Risk Score, Depression Likeliness Score, Current Infection Likelihood, and Impending Illness Risk.

The patient portal provides doctors with beautiful reports with a patient's scores as well as recommended dosage adjustments and next appointment details. In-depth medication and vitals overlays create a revolution in dosage adjustment and pain-management.

Currently, traditional patients are required to hand-log their personal health data multiple times per day and bring logs to doctor's appointments. The burden of thinking about one's declining health multiple times per day and the delay of reporting to doctors only once per appointment cycle shows that this is an industry in clear need of an efficient, user-friendly solution. Vital's minimalist UI means that by simply checking the time, users are reporting critical, real-time data to doctors to both improve their quality of care and their quality of life.

With heart attack and fall-detection algorithms and alerts and our wear-and-forget user philosophy, Vital is perfect for patients who have traditionally had difficulty with the motor skills required to hand-report their own health data each day.

This project contains:
- FitBit OS Native App for Ionic smartwatch
- Companion App which runs within the FitBit app on both iOS and Android
- Node.js Web Dashboard with data visualizations and dosage recommendations
- mySQL Database for patient data

To test the web dashboard, download the sensor-clock-web directory, navigate to it in terminal, and run:
$npm run build
$npm run preview

Thank you for an amazing event!

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Dr. Kyle Roberts

Burt Kennedy

Patient Activity Level

+10%

Overall Health

-7%

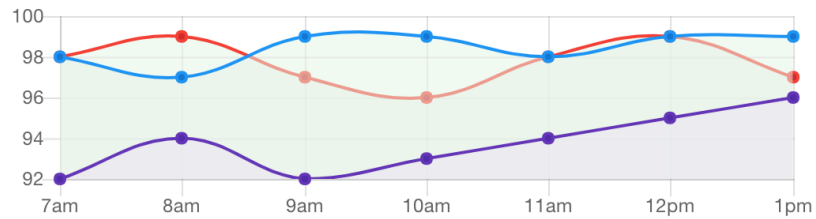
Patient Visits

-30%

Medication Adjustments

+33%

Vitals for Oct. 14th



0.04% Heart Rate

2% 02 Saturation

0.06% Temperature

Patient Information

Bert Kennedy

Age: 84 years

Weight: 168 lbs

Patient Since: January 2009

Next Appointment: October 22nd, 2018

Contact: +1 308 720 1949

Heart Attack Risk Score

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Dr. Kyle Roberts

Care for **Bert Kennedy**

- Review Burt's September report — 2 Days
- Discuss depression symptoms at appointment — 8 Days
- Bladder infection test — 8 days
- Recommend adjusting Prozac — 8 days

Heart Attack Risk Score

At risk for heart attack 20%

Depression Likeliness

At risk for depression 40%

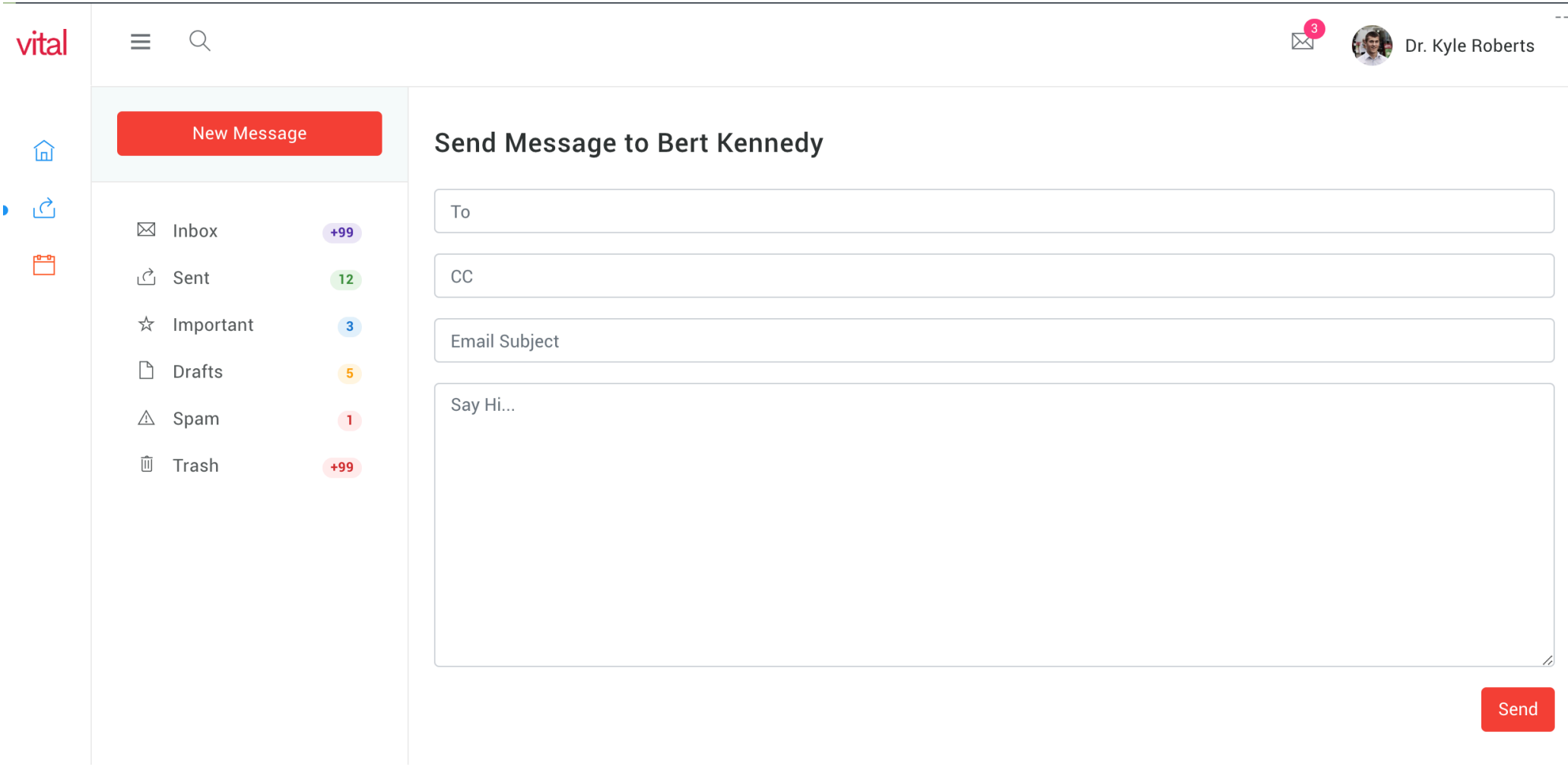
Sleep Score

Sleeping acceptable amount 75

Infection Susceptibility

At risk for infection and illness 60%

Heparin Dosage | Aspirin Dosage | Prozac Dosage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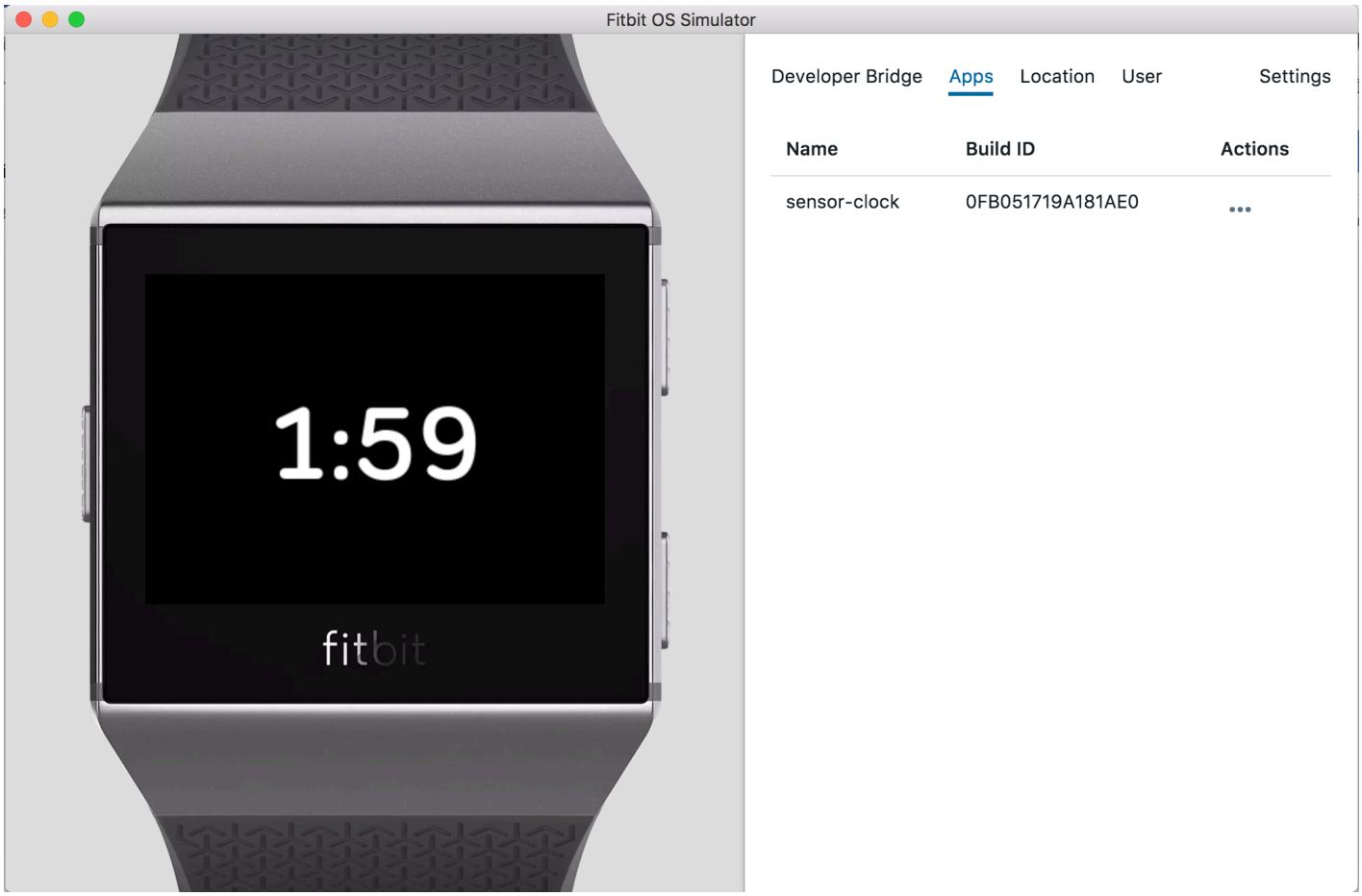
3
Dr. Kyle Roberts
New Message
Inbox +99
Sent 12
Important 3
Drafts 5
Spam 1
Trash +99
Send Message to Bert Kennedy
To
CC
Email Subject
Say Hi...
Send


Fitbit OS Simulator
1:59
fitbit
Developer Bridge
Apps
Location
User
Settings
Name
Build ID
Actions
sensor-clock
0FB051719A181AE0