

MICHIGAN STATE
UNIVERSITY

Beta Presentation

Medtronic Wellness Portal

[The Capstone Experience](#)

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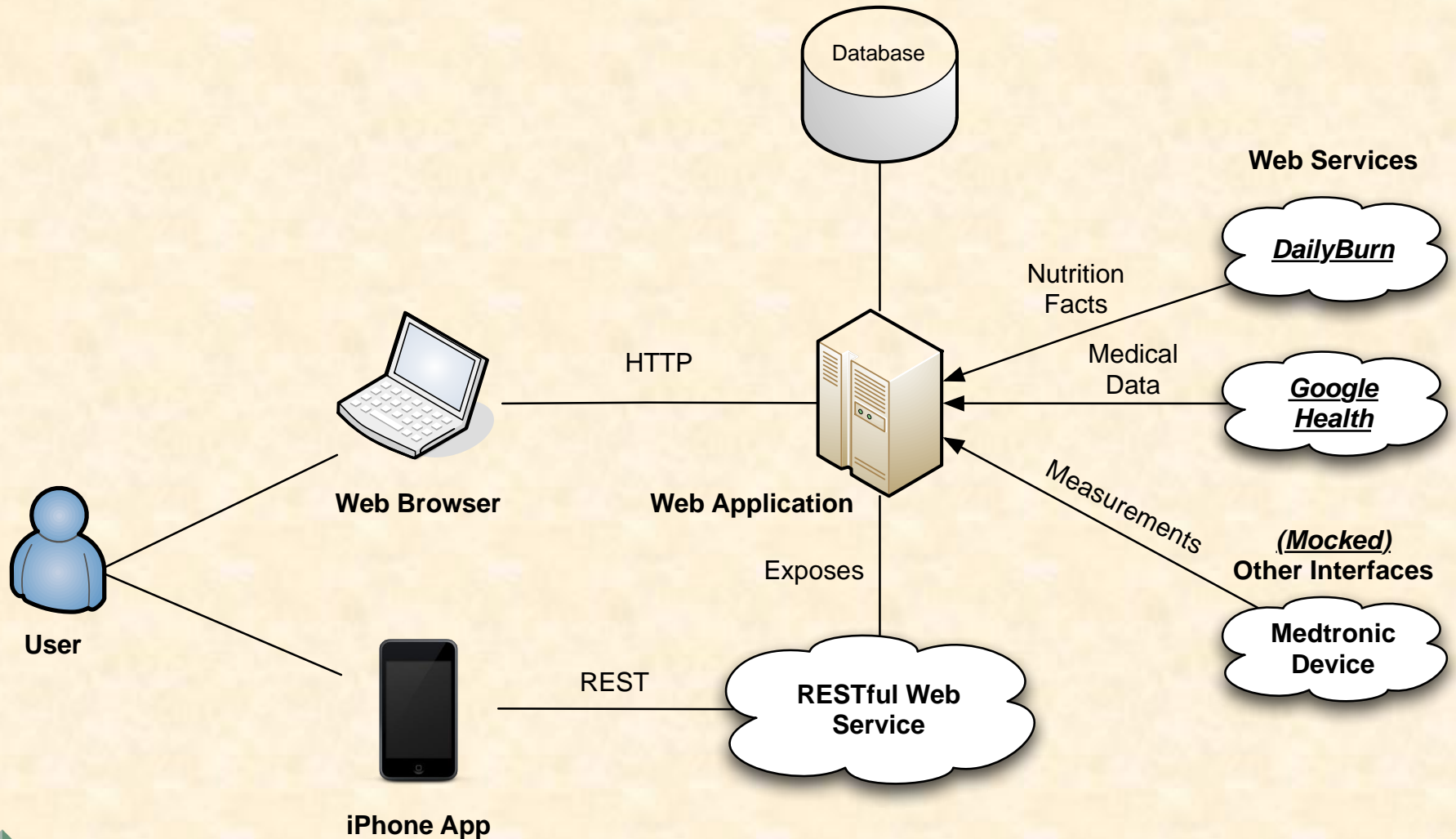
*From Students...
...to Professionals*

Project Overview

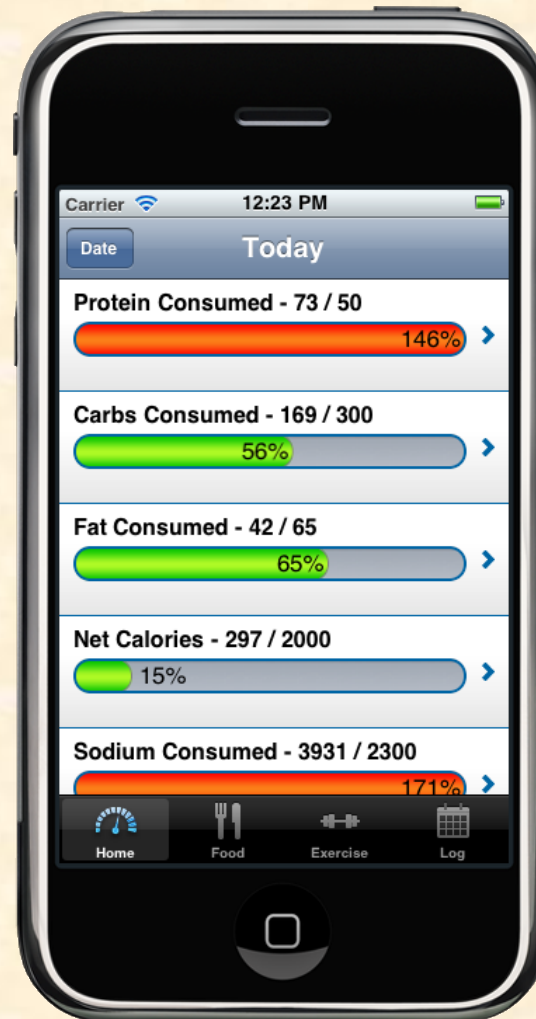
- Goal
 - Assist Medtronic patients manage health through objective measurements and displaying the effects of behaviors and choices
- Solution
 - Create a Web and iPhone application which track patient health data as automatically and seamlessly as possible, displays useful recommendations based on that data, and assists patients in tracking and achieving health-related goals



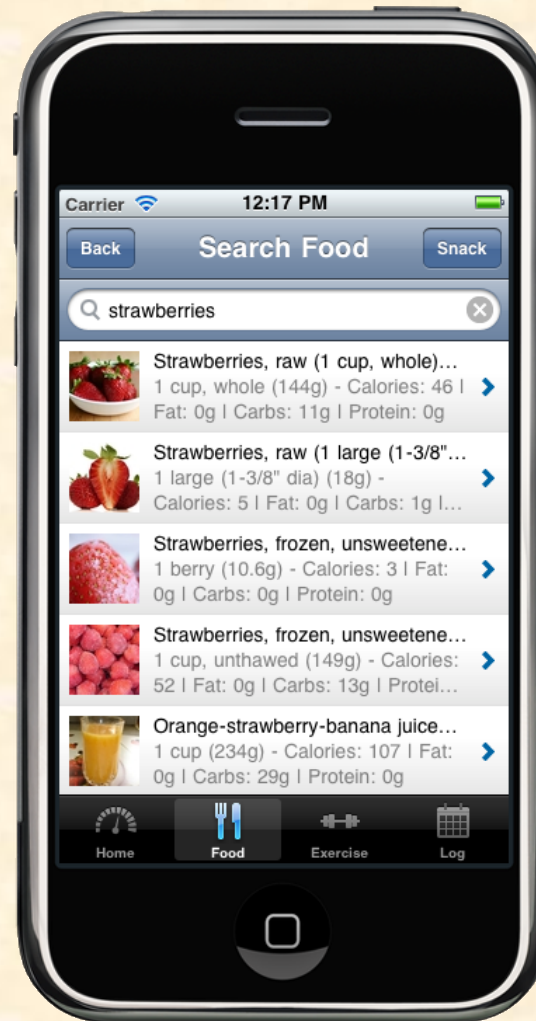
System Architecture



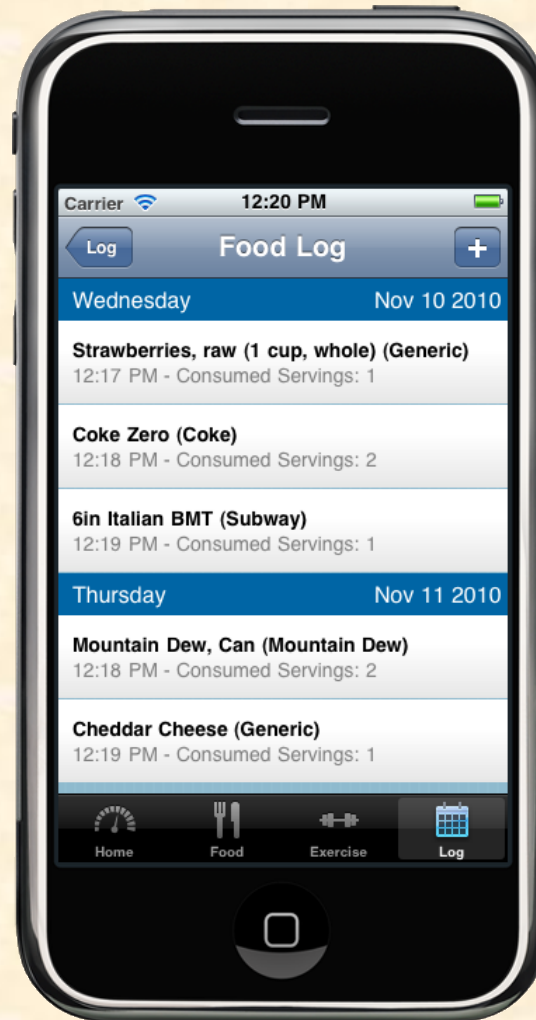
Goals Screenshot



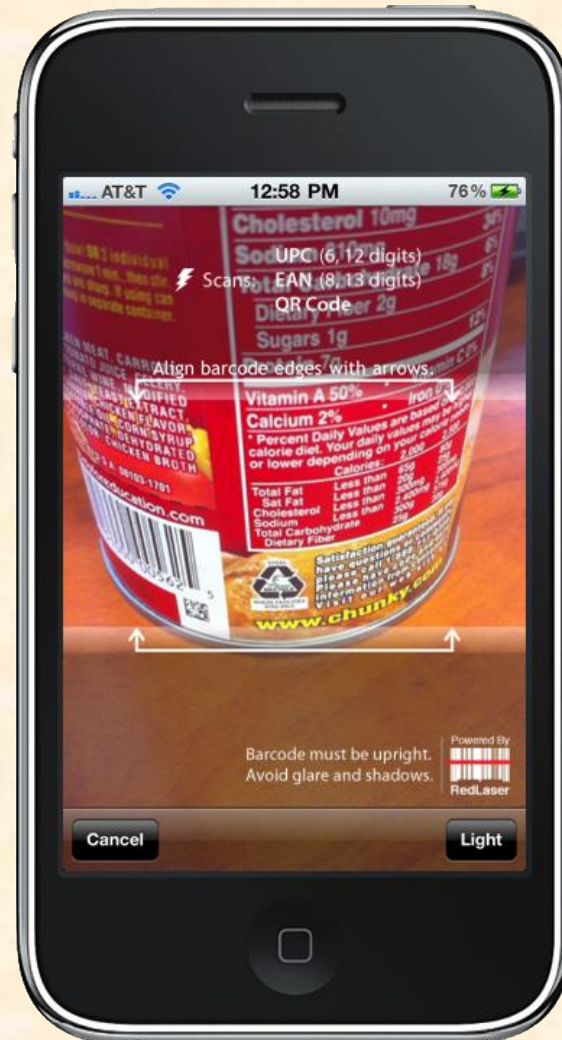
Search Screenshot



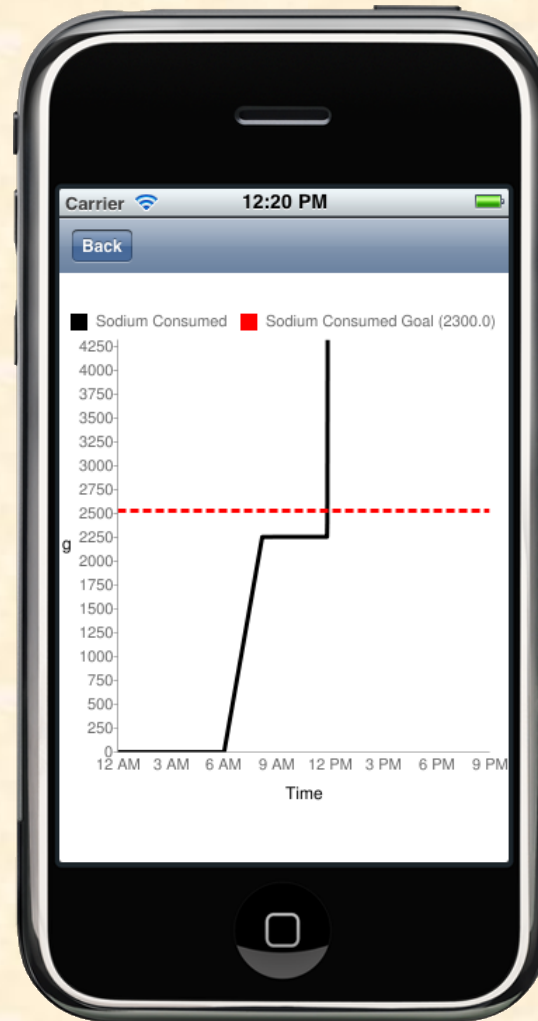
Food Log Screenshot



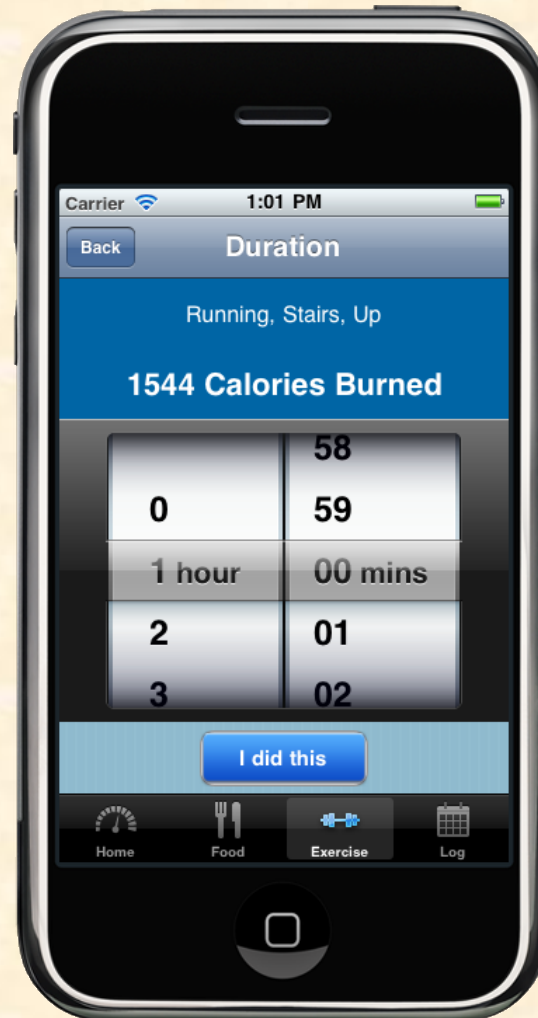
Scan Food Screenshot



Goal Graph Screenshot



Exercise Duration Screenshot



Data List Screenshot

Medtronic Search for food, exercises...

Welcome, bob | Edit Account Settings | Edit Medical Profile | Change Password | Log Out

Dashboard | Food | Exercises | Goals | Medical

Medical > Data List

[Add a Data Measurement](#)

Data List

Your Google Health Account is not integrated with the Wellness Portal. [Add your Google Health account now!](#)

id	User	Value	When was the measurement taken?	Measurement of	Recorded unit
31	bob	0	11/10/10 4:19 PM	Net Calories	Calories (Cal)
32	bob	0	11/10/10 4:19 PM	Calories Consumed	Calories (Cal)
33	bob	0	11/10/10 4:19 PM	Carbs Consumed	grams (g)
34	bob	0	11/10/10 4:19 PM	Fat Consumed	grams (g)
35	bob	0	11/10/10 4:19 PM	Protein Consumed	grams (g)
36	bob	0	11/10/10 4:19 PM	Sodium Consumed	grams (g)
1,203	bob	155	10/6/10 7:00 AM	Weight	pounds (lb)
1,204	bob	151	10/7/10 7:00 AM	Weight	pounds (lb)
1,205	bob	152	10/8/10 7:00 AM	Weight	pounds (lb)
1,206	bob	153	10/9/10 7:00 AM	Weight	pounds (lb)

1 | 2 | 3 | 4 | Next >

Upload Data in CSV Form: [Browse...](#) [Upload](#)

Activity

[More](#)

- Ate Pineapple, raw, all varieties (1 cup, diced) moments ago
- Ate Chicken Breast moments ago
- Ate Oatmeal moments ago
- Running (Taylor Code 200), PTS400S 12 minutes ago
- Set goal Protein Consumed below the goal value 50 every null (cumulative) 23 minutes ago

Goals

[Add a Goal](#)

Net Calories

7 hours from now

62% 1248 2000 Cal

Calories Consumed

7 hours from now

62% 1248 2000 Cal

Carbs Consumed

7 hours from now



Search Screenshot

The screenshot shows the Medtronic user interface. At the top left is the Medtronic logo. A search bar at the top right contains the text "Search for food, exercises...". Below the logo, a navigation bar includes "Dashboard", "Food", "Exercises", "Goals", and "Medical". A user profile section shows "Welcome, bob" with links for "Edit Account Settings", "Edit Medical Profile", "Change Password", and "Log Out".

The main content area is titled "Search Results for strawberries" and shows "10 matches". A search bar contains "strawberries" with a "within All" dropdown and a "Search" button. Below this is a "DailyBurn™ Foods" section. The first item is "Strawberries (Generic)" with a button "I Ate This" and a detailed view popup. The popup shows: "Strawberries (Generic)", "Serving Size: 1 cup", "Servings Consumed: 1", and "When?: 11/10/2010 4:40 PM". Below the popup are other food items: "Strawberries, frozen, unsweetened (1 cup, unfrozen) (Generic)", "Orange-strawberry-banana juice (1 cup) (Generic)", and "Strawberries, raw (1 extra large (1-5/8\" data-bbox="71 238 936 953"/>



Medical Measurement Screenshot

Medtronic Search for food, exercises...

Welcome, bob [Edit Account Settings](#) [Edit Medical Profile](#) [Change Password](#) [Log Out](#)

[Dashboard](#) [Food](#) [Exercises](#) [Goals](#) [Medical](#)

Medical > Add a Data Measurement

Add a Data Measurement

Measurement of:

Value: millimoles per liter (mmol/L)

When was the measurement taken? :

Duration:

Activity

- Ate Pineapple, raw, all varieties (1 cup, diced) moments ago
- Ate Chicken Breast moments ago
- Ate Oatmeal moments ago
- Running (Taylor Code 200), PTS400S 12 minutes ago
- Set goal Protein Consumed below the goal value 50 every null (cumulative) 23 minutes ago

Goals

Protein Consumed 7 hours from now
100%
122 50g

Calories Consumed 7 hours from now
62%
1248 2000 Cal

Sodium Consumed 7 hours from now
21%



Goal List Screenshot

The screenshot displays the Medtronic user interface for the 'Goal List' section. At the top, the Medtronic logo is on the left, and a search bar is on the right. Below the logo, the user is identified as 'Welcome, bob' with links for 'Edit Account Settings', 'Edit Medical Profile', 'Change Password', and 'Log Out'. A navigation bar contains 'Dashboard', 'Food', 'Exercises', 'Goals', and 'Medical'. The main content area is titled 'Goals > Goal List' and includes an 'Add a Goal' button. A 'Sort by' section offers options for 'Date Added', 'Goal Type', and 'Target Value'. The main list shows four goals: 'Protein Consumed' (100% complete, 122/50 g), 'Calories Consumed' (62% complete, 1248/2000 Cal), 'Fat Consumed' (54% complete, 35/65 g), and 'Carbs Consumed' (38% complete). Each goal has 'View', 'Edit', and 'Delete' buttons. On the right, an 'Activity' section lists recent activities like 'Ate Pineapple, raw, all varieties (1 cup, diced)', 'Ate Chicken Breast', 'Ate Oatmeal', and 'Running (Taylor Code 200), PTS400S'. Below that, a 'Goals' section shows smaller progress bars for 'Carbs Consumed' (38%), 'Calories Consumed' (62%), and 'Protein Consumed'.



Food Log Screenshot

The screenshot displays the Medtronic Food Log interface. At the top left is the Medtronic logo. A search bar at the top right contains the text "Search for food, exercises...". Below the logo, a navigation bar includes "Welcome, bob" and links for "Edit Account Settings", "Edit Medical Profile", "Change Password", and "Log Out". A secondary navigation bar contains "Dashboard", "Food", "Exercises", "Goals", and "Medical". The main content area is titled "Food Log" and includes a search bar with the placeholder "What did you eat?" and a "Search Foods" button. Below this is a section for "My Recent Foods" listing four items:

- Pineapple, raw, all varieties (1 cup, diced) (Generic)**: 1 cup, diced (155g) - Calories: 74 | Fat: 0g | Carbs: 19g | Protein: 0g. Ate 3.0 servings on Nov 10, 2010 4:41:00 PM.
- Oatmeal (The Quaker Oats, Co.)**: 1 cup - Calories: 102 | Fat: 1g | Carbs: 18g | Protein: 3g. Ate 3.0 servings on Nov 10, 2010 4:39:00 PM.
- Chicken Breast (Generic)**: 4 oz - Calories: 144 | Fat: 5g | Carbs: 0g | Protein: 21g. Ate 5.0 servings on Nov 10, 2010 4:39:00 PM.
- Cocoa mix, NESTLE, Rich Chocolate Hot Cocoa Mix (1 serving 1 envelope) (Nestle USA, Inc.)**: 1 serving 1 envelope (20g) - Calories: 80 | Fat: 3g | Carbs: 15g | Protein: 0g. Ate 2.0 servings on Nov 9, 2010 2:30:00 PM.

Each entry includes "Edit" and "Delete" icons and an "I Ate This" button. To the right, there are three summary panels:

- Activity**: Lists "Ate Pineapple, raw, all varieties (1 cup, diced)", "Ate Chicken Breast", and "Ate Oatmeal" (all moments ago), and "Running (Taylor Code 200), PT5400S" (12 minutes ago). It also shows a goal for "Protein Consumed below the goal value 50 every null (cumulative)" (22 minutes ago).
- Goals**: Shows "Protein Consumed" at 100% (122 50g) and "Fat Consumed" at 54% (35 65g) for a 7-hour period.
- Sodium Consumed**: Shows 21% consumption for a 7-hour period.



What's left to do?

- Minor bugs fixes
- Styling web-app layouts
- Recommendations for additional data types
- Interface polish
- iPhone app optimizations

