FITNESS REPORT
DASHBOARD
A CASE STUDY

Blackcoffer
CONSULTING
DERIVING BEAUTIFUL INSIGHTS
Objective of Project:

Create a cloud dashboard for collection of user data for analytics and recommendation report.

Dashboard was made for healthcare and medical purpose to use IoT and fitness devices to collect data.

Project Design:

1. Dashboard is being made to collect user activity data from their fitness product/Devices to cloud.

2. The data driven dashboard will generate weekly and monthly report regarding user activity.

3. The report will contain detailed information related to stated parameters.

4. Dashboard will help in pushing notification to user suggesting what can be done to improve their health report.

5. App will also help user in knowing irregular pattern in health to avoid alarming situations.

6. The data is collected on cloud and personalized report are generated with trained ML and AI.
**Data Parameters:**

- Height / Weight ratio (BMI)
- Blood pressure
- Glucose
- Pulse, Normal and resting heart
- Cholesterol
- Body Temperature
- Physical Activities: running, walking, climbing, swimming, resting, exercising
- Sleep Pattern

**Methodology:**

1. The Dashboard was made using many software tools like javascript, D3.js, dashboard development tools, for development, and R/Python were used for analysis, data models, and data pipelines.

2. The approach was simple use of persona/DNA and recommendation.

3. In persona the data was collected by the product in set parameters and was sent to cloud and saved in a format.

4. After the data is saved it was analyzed in data driven dashboard creating health reports and results.

5. And personalized recommendation was sent to user along with the report. The recommendation factor was trained using ML and AI, to give different recommendation on the basis of result.
Data Visualization and Interpretation:

Data is collected from different parameters and visualized according to their category. The dashboard will show user data in the following way. From within the dashboard, a user can generate their report.
BMI (kg/m²)  
Last measured: 23.9 kg/m² - Normal - Wednesday

BMI

23.9 kg/m²

Normal

Super Obese: Greater than 40.0
Severely Obese: 35.0 to 40.0
Obese: 30.0 to 35.0
Overweight: 25.0 to 30.0
Normal: 18.5 to 25.0
Underweight: 16.5 to 18.5
Severely Underweight: Less than 16.5

Steps

328,000
296,000
195,000
136,000
65,000
0
Future Scope of Project:

Current feature of dashboard includes:

- Save report to dashboard
- Send report by email
- Update and generate PDF reports
- Automation to send monthly report

Current capabilities can record data of - Walking steps, Running distance, Calories burned, Types of exercises, Heart rate, Weight management, Sleep pattern.

In future it is estimated that app will be able to produce reports that is usable to doctors and medical treatment and following features will be added:

- Visualization of
  - Problems
  - Diagnosis
  - Medications
  - Procedure
  - Immunization
  - Allergies
  - Vitals
- Lab measures and recommendation

Total Cholesterol (mmol/L)
Last measured: 5.02 mmol/L - Normal - 04/05/14