Brosvike Fitness-Wellness App

# Problem

Brosvike has developed line of wearable technology products intended to assist individuals in becoming healthier and happier.

# Need

Information system (app) to collect and track information about activities, the physiology of individuals and share this data through cloud service on a daily basis.

# Subsystems

1. Registration subsystem
2. Client settings subsystem
3. Daily Fitness Tracking (DAT) subsystem
4. Daily Nutrition Tracking subsystem
5. Fitness Activities Tracking (FAT) subsystem
6. Achievement subsystem?
7. Social subsystem—management (add/remove)
8. Sharing subsystem
9. Intelligent Feedback Subsystem
10. Report subsystem
    * Client (cumulative statistics-fitness, food intake, etc.)
    * Admin (client-base reports, network traffic)

Brosvike Fitness (Fitness and Wellness App)

Group Members: Bryan Maravilla, Kevin Ma, Ostap Hamarnyk, Vinood Persad

# Problem Description

Wearable technology is becoming more popular and the market for it holds great potential. Brosvike, a new start up, has researched about this field of technology and has decided to get in on this new trend. They developed a line of fitness products including: smart watches, shoes, googles, and contact lens. The intended target audience for their technology ranges from sedentary people who need motivation to exercise, all the way to competitive athletes who require an app which can track their daily progress. It is important for Brosvike to provide a reliable application which can cater to all of their clients’ needs and keep everyone happy. Although their technology is top of the line and can accurately measure statistics with great precision, they lack a team of dedicated developers to design, develop and maintain a system for their equipment.

Brosvike currently has a app application which manages the client’s personal statistics. The data is stored locally on the client’s phone. However, Brosvike would like to have a more flexible system that would connect clients and form a fitness community, as well as moving the data storage to the cloud. This system should be deployed as a app application.

# System Capabilities

The new system will enable clients to:

* Collect, store and view information pertaining to their physiology (height, weight, age, activity level, etc.)
* Collect, store and view information for their daily nutrition intake (calories, protein, fat, etc.)
* Collect, store and view information pertaining to their daily fitness (heart rate, calories, steps, amount of sleep, etc.)
* Collect, store and view information pertaining to fitness activities they participated in (running, soccer, basketball, gym workout, etc.)
* Receive achievement awards in the application as a means to be more motivated to becoming healthier
* Connect to like-minded individuals who share similar fitness interests
* Add friends to their fitness community circles
* Remove individuals from their fitness community circles
* Share their statistics and achievements with their fitness community circles
* Receive feedback and tips from the app to improve their health: e.g. The app will recommend clients to consume more/less of calories, fats, water, etc. depending on their height, weight, age, and daily activities
* Connect via Wi-Fi/app data (Internet) and transmit data to the system (databases in the cloud)
* Connect via Bluetooth to sync data to mobile app
* Clients view weekly reports pertaining to:
  + Physiology changes
  + Fitness statistics—heart rate, steps walked, calories burned, sleep obtained
  + Activity statistics—e.g. basketball three times this week for x hours, etc.
  + Nutrition statistics—total consumption of carbs, protein,
  + Achievements
* Admin/Owner view monthly reports pertaining to:
  + Registration statistics
  + Client activity statistics—amount of time using app
  + Client location usage statistics
  + Fitness Activity Statistics—used for research, developing and advertising new devices

# Business Benefits

It is anticipated that the deployment of this new system will provide the following business benefits to Brosvike:

* Increase client satisfaction and thereby client usage of the equipment and app
* Maintain correct and current statistics pertaining to the client’s daily activities
* Increase client user base by allowing clients to network with each other and getting their acquaintances to join them in using the app
* Opportunity to expand in this competitive market

1. Registration subsystem
   1. Client requests registration
   2. App provides registration page
   3. Client enters in registration details
   4. System validates details
      1. If the details are invalid, prompt client for details again and proceed to 1.3; if not proceed 1.5.
   5. App prompts client to connect account to device
      1. If client declines, proceed 1.10; if client accept then proceed to 1.6.
   6. App prompts client for device ID
   7. Client enters device ID
   8. System validates device ID
      1. If the device ID is invalid, proceed to 1.6; if not proceed to 1.10.
   9. Device is paired to the app via Bluetooth
   10. System sends welcome email with account credentials and beginner tips to using the application.

PICTURE GOES HERE

1. Client settings subsystem
   1. App requests user settings from system
   2. System provides user settings to app
   3. Client requests to either view or update client settings
      1. If client requests to view settings, proceed to 2.4, if not proceed to 2.5
   4. App provides client settings to the client, proceed to 2.9
   5. App prompts client for updated client settings
   6. Client provides updated client settings or chooses to cancel updating settings
      1. If client chooses to cancel, proceed to 2.9; if not proceed to 2.7
   7. System validates provided information
      1. If provided information is invalid, proceed to 2.5; if not proceed to 2.8
   8. System sends confirmation that settings have been updated
   9. App brings client to home view

PICTURE GOES HERE

1. Daily Fitness Tracking (DAT) subsystem-steps, calories, sleep obtained
   1. Device collects info from the client automatically throughout the day
   2. Client requests to sync data to app from device
      1. If device is not connected to app via Bluetooth, then proceed to 3.3, if not proceed to 3.5
   3. Client requests to connect device to app using Bluetooth connection
      1. If device fails to connect to app, then proceed to 3.3; if not proceed to 3.4
   4. Device connects to app through Bluetooth connection
   5. Client requests device to sync data to the app
   6. Device syncs data to the app
      1. If the app is not connected to the internet (wi-fi/mobile data) proceed to 3.8; if not proceed to 3.7
   7. The app pushes the newly synced data to the system
   8. The app brings client back to the home view

4.0 Daily Nutrition Tracking subsystem

5.0 Fitness Activities Tracking (FAT) subsystem

6.0 Achievement subsystem!!!!

7.0 Social subsystem—management (add/remove)

8.0 Sharing subsystem

9.0 Intelligent Feedback Subsystem

10.0 Report subsystem

10.1 Client (cumulative statistics-fitness, food intake, etc.)

10.2 Admin (client-base reports, network traffic)