SapoFitness: A Mobile Health Application for Dietary Evaluation

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Outline

- Introduction

- Motivation

- Application Construction

- Evaluation

- Conclusions and Future Work

Introduction

- One major problem in today's healthcare is the lack of availability from patient and doctor for frequently health monitoring.

- Patients that live in distant areas, that are also often physically inaccessible to health monitoring or treatment.

- Wireless and mobile networks
  - Accessible and affordable healthcare solutions

- Mobile health(M-Health)
  - smart mobile devices
  - deliver health-care anywhere and anytime

Motivation

- Develop an m-Health application

  ◦ Dietary assessment and evaluation

  ◦ Motivation tool for weight loss and to increase physical activity

- Basic function

  ◦ Daily records of user food intake and diary exercise

  ◦ Sends to the user alerts or messages for his or her diet program

  ◦ Share with social networks
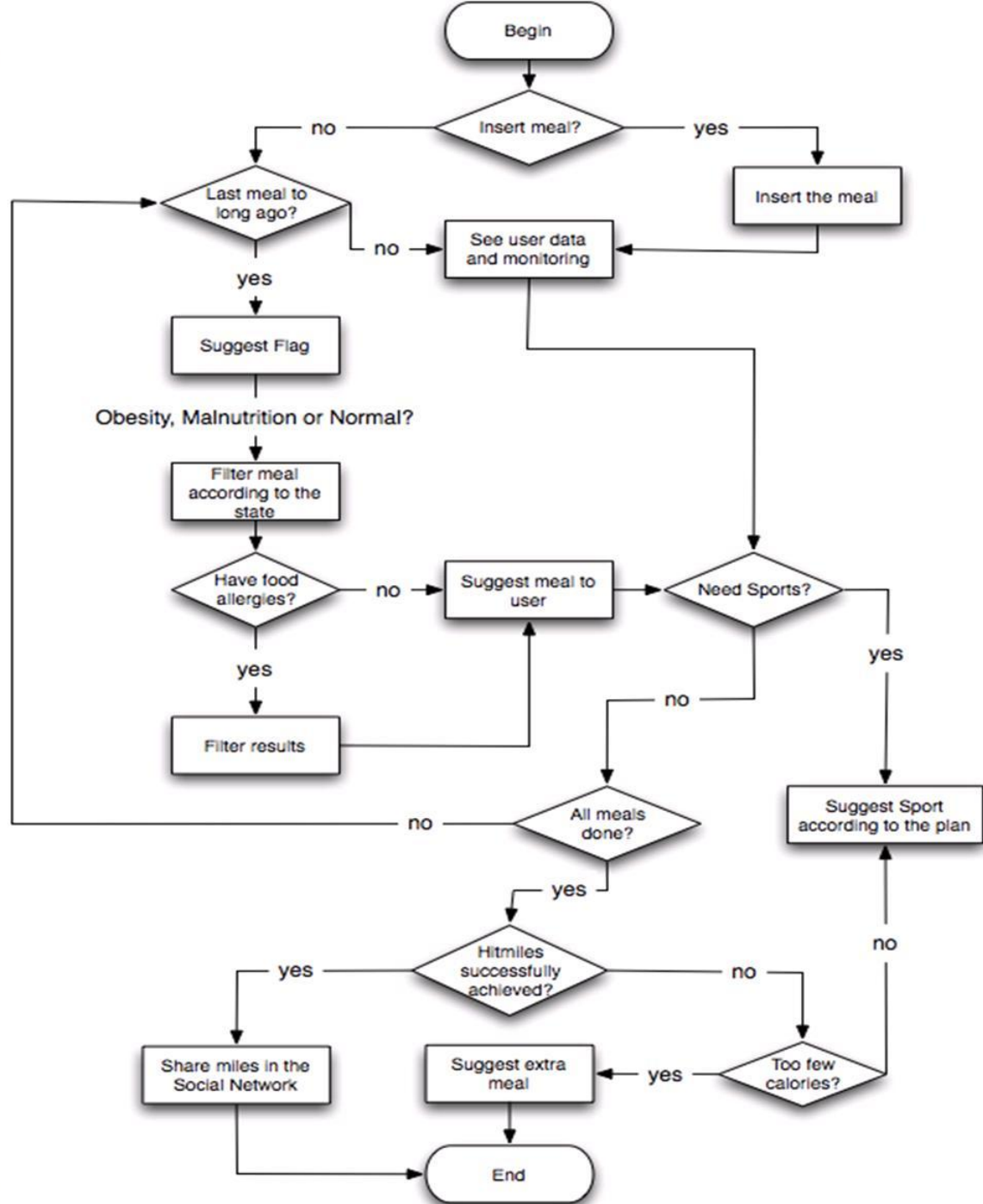
SapoFitness

- Android platform
  - Eclipse
  - Android SDK
- Simple User Interface
- Minimal input
- Easy to use

SapoFitness(cont.)

- User Profile customization
  - Weight ,height ,age and sex; physical activity
- Calculate
  - Body Mass Index
  - normal weight
  - diary caloric and energy need

SAPO FITNESS

175 Enter your height (cm)

200 Enter your weight

26 Enter your age

Sex

○ Male   ○ Female

Daily physical activity sports

Moderate

Save Profile

SAPO FITNESS

WARNING! Your weight puts you at the level III of obesity
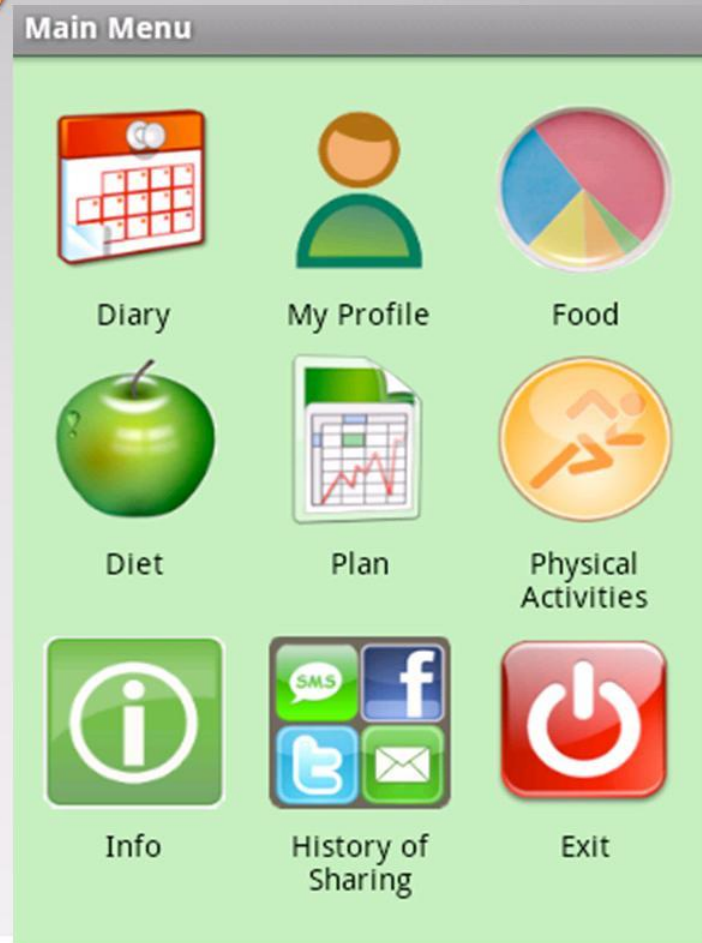Body mass index: 65

Ideal weight: 66 Kg

Energy needs 6655 Kcal

Learn more about your nutritional status
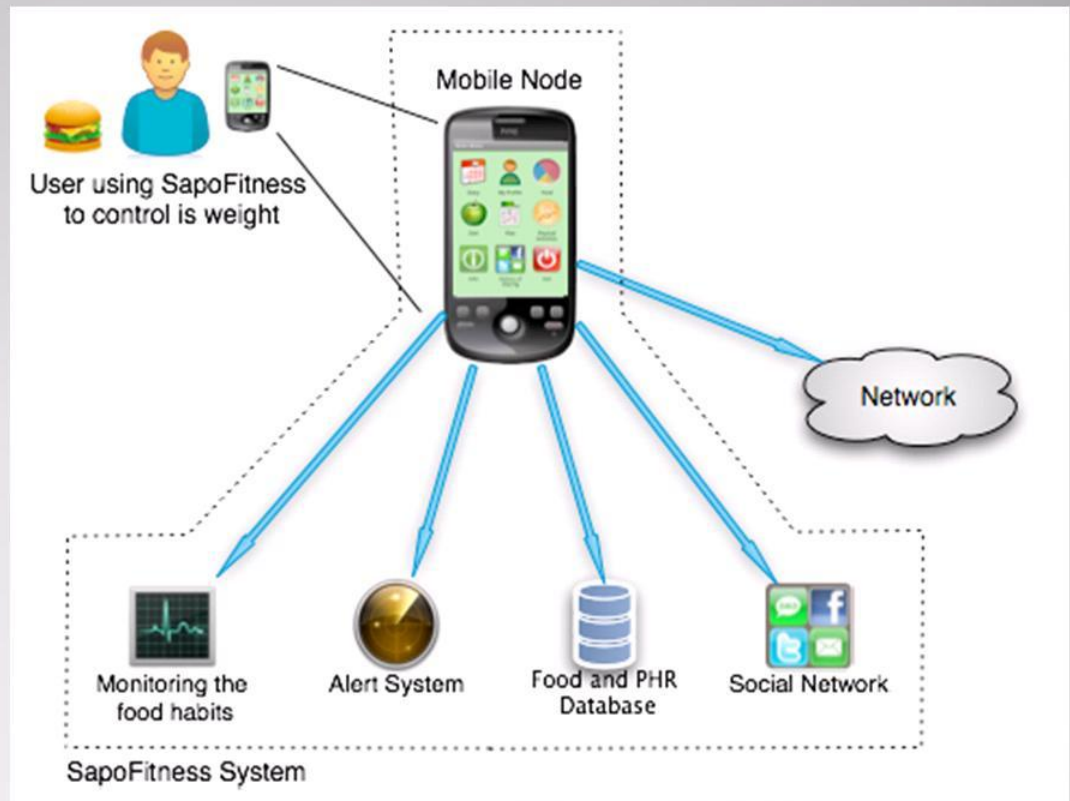
Suggested eating plans

Change profile data   Menu

SapoFitness(cont.)

- SapoFitness Main Menu

  ◦ Diary Food intake

  ◦ Food Search

  ◦ User Schedule and status

  ◦ Physical Activities

  ◦ History of sharing

System Architecture

- User-mobile device

- Monitoring food habits

- Alert System

- Food and PHR database

- Social network
  - Frequent connection to the Web

Validation

- Several real PDAs
- Three different screen sizes
  - Application interface behaviour was perfect.
- User experience and validation
  - Daily food
  - Physical activities
  - Profile changes
  - User motivation
- Day-by-day tests
  - Application has a motivation and fun tool

Conclusions

- mHealth application for dietary evaluation

- Motivation tool for weight loss and to increase physical activity

- Easy to use interface

- Deployable on any mobile device with any version of Android OS

- Promotes a healthier live style

Thank you