**MINISTRY OF EDUCATION AND TRAINING**



**FPT UNIVERSITY**

Capstone Project Document

**Health Support Tracking System**

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| **Group 2** | |
| **Group members** | Ha Kim Quy – QuyHKSE61160  Tran Dang Quan – QuanTDSE60878  Phan Nhat Anh – AnhPNSE90158  Man Huynh Khuong - KhuongMHSE61148  Nguyen Duy Khuong – Khuongnd60493 |
| **Supervisor** | Mr. Kieu Trong Khanh |
| **Ext. Supervisor** | N/A |
| **Capstone Project code** | HSTS |

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# Definitions, Acronyms, and Abbreviations

# Introduction

## Project Information

- Project name: **Health Support Tracking System**

- Project Code: **HSTS**

- Product Type: **Mobile Application, Website**

- Start Date: **September 07th, 2015**

- End Date: **December 12th, 2015**

## Introduction

* In modern society, the people worry about their health. The fat is the most important problems. The doctor diagnoses the patient with medicine and exercises. However, the patient uses medicine without exercises or forget use medicine that cause problem in effective treatment. Besides, some patient need to be followed and update treatment after a period. Patient need to consult in time to treatment.
* The smart activity wristband appear providing functional with tracking workouts, calories burned, steps. Besides, that device can synchronize bluetooth and automatically to the computer and over 150 leading smart phones.
* So, this system will help doctor tracking practice information of patient, then doctor will setup new treatment for patient. We will remind patient use medicine, do exercise. Doctor can require meet patient. Patients does not need waste time to meet doctor. Patient’s treatment will update day by day follow what they do.

## Current Situation

Some applications already on the market:

* Only support for one smartphone or one wristband.
* Does not have participation of doctor.
* Put out information but can not use.
* Only use to practise.

Process of fat medical examination at Ho Chi Minh Nutrition Center:

* Step 1: Buy health records and fill information about patient.
* Step 2: Before payment, casher will insert patient profile to system based on health records.
* Step 3: Patient goes to Nutrition department and is checked general examination by nurse to get information about blood pressure, weight, height.
* Step 4: Patient walks to Health Monitor and have prevention check about body structure, calculate lipid mass in body.
* Step 5: Patient moves to Menu Creation department and is asked about what patient ate in one day by doctor. Doctor will calculate calories and evaluation index, for example, protein, starch, lipid, and calcium … which patient get in one day.
* Step 6: Patient comes back to Nutrition department and meets doctor to make medical examination and make prescription.

Process of fat medical examination at Ho Chi Minh Traditional Medical Hospital:

* Step 1: Buy health records and fill information about patient.
* Step 2: Before payment, a nurse will ask patient about which illness patient want to examination and insert patient’s profile into system.
* Step 3: Patient goes to polyclinic department, nurse will get information about blood pressure, weight, height and had general examination by doctor.
* Step 4: If patient has illness, doctor will make prescription and patient move to nurse to make Surgical Examination Form
* Step 5: Patient buy medicines from medical store.

## Problem Definition

* Advantages.
  + Easy and fast tracking information like number of step, calories burned.
  + Have a group use that app to practise together.
* Disadvantages:
  + Does not have participation of doctor.
  + Only support for one smartphone or one wristband.
  + Cannot suggestion the treatment or exercies.
  + Cannot notify to doctor, patients.
  + Unusable regiment in treatment.
  + Put out information but can not use.

## Proposed Solution

The application uses a combination between a smart phone and a wristband device to gather the patient’s number of steps, calories burned, and others. Basing on the collected data, the doctor makes the treatment decision within system suggestion. The system will collect data from patient to propose the way to heal.

### Feature functions

* The nurse can input the basic information of patient.
* The doctor can agree to treat or not.
* When doctor agree the treatment, the system will allow the patient to access account from mobile device.
* The mobile application can collect patient’s data and send to server every day.
* The system compares it with standard regimen, then suggest for doctor.
* The doctor can view, edit and approve the regimen.
* The patient can receive treatment plan, notification from doctor.
* The system will remind the patient what he/she should do following treatment plan every day.
* The doctor can make the next appointment schedule.
* The patient can see current information of wristband, history and edit their information.

### Advantages and disadvantages

* Advantages:
  + The system provides for doctor pieces of tracking information to make treatment plan more effectively.
  + The patient will receive doctor’s treatment suggestions frequently.
  + The patient never forgets to use medicines or does others because this system will remind them.
* Disadvantages:
  + The doctor must have the personal computer and internet connection to access tracking information.
  + This system only used with people from 20 - 40 ages.
  + The patient also must have a suitable smartphone with wristband device and internet connection to send information as well as receive treatment plan.
  + The patient must always use mobile application and wristband in the right way. In some cases, the patient is unnecessary to use wristband (for example: the flu). If not the system will collect wrong data and the treatment may be worse..

## Functional Requirements

Function requirements of the system are listed as below:

### Create a patient profile in system.

* Nurse input information when patient meet doctor.
* Doctor will accept treatment to patient and provide account.

### Get information of wristband and save in smartphone.

* Application on smartphone can get information of wristband save in local.

### Android application send information of wristband to server.

* When patient’s smartphone have internet. Application will synchronize data from local to server.

### System suggest treatment for patient to doctor.

* When collect data of patient, system will compare with regimen and suggest treatment to doctor.

### System send treatment of doctor to patient.

* System send treatment of doctor to patient.

### Application support to remind use medicine, do exercise.

* Remind use medicine, do exercise.

### Manage regimen of disease.

* Doctor add new regimen and new disease.
* Doctor update regiment of disease.

### Manage nurse, doctor.

* Admin can insert new doctor, nurse.
* Delete a doctor, nurse.

## Role and Responsibility

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| --- | --- | --- | --- | --- |
| No | Full Name | Role | Position | Contact |
| 1 | Kieu Trong Khanh | Scrum owner | Instructor | khanhkt@fpt.edu.vn |
| 2 | Ha Kim Quy | Scrum master | Leader | quyhkse61160@fpt.edu.vn |
| 3 | Tran Dang Quan | Team member | Member | quantdse60878@fpt.edu.vn |
| 4 | Phan Nhat Anh | Team member | Member | anhpnse90158@fpt.edu.vn |
| 5 | Man Huynh Khuong | Team member | Member | khuongmhse61148@fpt.edu.vn |
| 6 | Nguyen Duy Khuong | Team member | Member | Khuongdk60493@fpt.edu.vn |

Table 1 Roles and Responsibility