

# **City University of Hong Kong Department of Computer Science**

## BSCCS Final Year Project 2014-2015 Project Plan

(14C5079)

Chinese Medicine Clinical Management System

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#### **Background Information**

In Hong Kong, the majority of Chinese Medicine Doctors are still using handwritten prescriptions and health records. However, it may be troublesome to manage and find records when their business have been run for years. Also, storage may be a problem. As we all know, places for business are usually not large in Hong Kong. When the records become more with time, it will not be an easy task for storing these records in hard-copy format. Thus, this raises the need of a computer system which helps those doctors to manage patients' health records.

#### **Motivation**

In the market, there may not have many systems which can be chosen and also they are usually expensive. This will make Chinese Medicine clinics hesitate to adopt the existing information technology solutions. More than that, as told by some Chinese Medicine practitioners and students, features, functions and business rules implemented in the existing systems may not be useful or may even even hinder their work. Sometimes, those systems may provide too much information which will distract the users and divert users' train of though. Thus, the doctors may make suboptimal decisions or incorrect judgments for cases. More than that, there is no standard in the industry for the jargon used, and practices for different doctors may vary. This causes inconvenience to users for changing their daily routine and mindset if the system used does not provide flexibility to do a certain degree of customization. Therefore, a system which incorporates more knowledge of the business domain and can run is acceptable cost is need.

#### **Problem Statement**

Existing systems needs a high cost and/or they implemented functions, features and business rules which are not useful.

#### **Project Objectives**

As mentioned in previous two parts, existing systems may not fit the real practices in the industry. Therefore, the objective of this project is to develop a system that can help user with their daily jobs. The system will implement business rules that suits the real working situations and, for some rules, allow the user to exercise their professional judgments to override the rules. Also, some features will be added according to some potential users, like Chinese Medicine doctors and students, in order to fits their business.

#### Scope

This project is going to develop a clinical management system for Chinese Medicine practices which will be used on Windows and supported by a database on a server. The system can cooperate with the system or system prototype produced from AU-YEUNG Wing Shing's final year project (Project Code: 14CS078) to provide value-added functions like stock reservation.

- The scope of this project is defined as follows:
  - Explore the functions and features which are needed by Chinese Medicine Doctors
  - Construct a system which suit different scales of business, include but not limited to:
    - Doctor works in his own clinic (single user)

- Clinic with multiple doctors, they work in shift or simultaneously
- A doctor works in more than one clinics
- Receive opinions and suggestions from potential users to develop a system which can suits the real situation
- Internet security concerns will not be addressed in the system

## **Major Technical Components**

#### Agile-like Development Method

In this project, working software is important. During the development, I may need to response to change quickly since the prototype may be tried by some potential users. Agile development methods are suitable for this project as it emphasizes on fast response to change and working software. Since the project is going to develop a system mainly by myself, I only can follow some agile principles, i.e. I only can use agile-like approach.

#### Reporting Tools

Documents, like prescriptions and certificates, will be generated and printed from the system. A reporting tool allow developers to design the layout template(s) for the documents and it can handle the final printing layout automatically.

#### Barcode

Barcode may be printed on the print-out documents for easy referencing and searching in the system by scanning it using a barcode scanner.

## **Expected Results & Deliverables**

- Clinical Management System for Chinese Practices
- Interim Report I
- Interim Report II
- Final Report

## **Project Schedule**

22 September 2014 Submission of Project Plan

23 September 2014 Start Literature Review and writing Interim Report I

October 2014 Development Environment Setup

Familiarize with the tools and technologies to be used

System development starts

3 November 2014 Submission of Interim Report I

9 February 2015 Submission of Interim Report II

13 March 2015 System development ends

13 April 2015 Submission of required documents