Vietnam National University, HCMC

**UNIVERSITY OF ECONOMICS AND LAW**

Faculty of Information Systems

**AN HOSPITAL SYSTEM**

**SPECIFICATION**

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*Môn học:* Thiết kế và lập trình web kinh doanh 1

*Giảng viên:* Th.S Trần Thị Ánh

*Nhóm:* DANT

*TP. Hồ Chí Minh, tháng 12 năm 2019.*

# Overview

Most of the hospital in cities are getting overloaded, which can be because of the slow and ineffective of the system as well as difficulties in interaction between humans. In the era of industry 4.0, we would like to make a revolutionary in hospital service by applying AI to all functions. This means people will find 90% of our workers are robots, along with that is a software system which is still being tested. Users will mostly experience their mobile phone app, and in many stations they also have to interact with our stations’ apps. In this specification, we focus on the mobile app, but let’s cover the whole system briefly.

The check-in app in the check-in station will check the user’s appointment if they have already had one and allow them to create if they haven’t. After that it will show what tests that user need to take and predict the disease based on tests’ results. Users will do necessary payments here, too, and cash is available.

In the test station, users should not step to “warning” room because the robots inside is currently not working. In each room, there will be a recognize sensor to recognize people and a screen to show what they need to do in the room. After that they can see the test result on the screen and also their mobile phone.

Patients after finishing test steps, they will come back to the check-in station to get the medical examination result. We will have a doctor here just to make sure the accuracy of the result. He/she will also the one who explain more about the result and answers any wonders from the patients. Receiving prescription, patients should pay for the medicine bill if they decide to get medicines from the pharmacy station. If not, they can still buy in other drug stores even it does not belongs to AN Hospital.

After corfirming the prescription, customers will wait in the waiting space until they receive a push notification from the application which says medicines are ready. After receiving medicines, they should sign in the pharmacy app or in their own app. If they do not receive medicines in 24 hours, order will be cancelled and payment will not be refund. In case there are people who want to buy medicines without using hospital examination service, they can still come to the station by fill in prescription ID, make payment and receive medicines.

In the mobile app, we provide several features. We call 5 main fragment in our app is “Daily”, “Consultancy”, “Booking”, “Pharmacy” and “Profile”. In the first one, we have pill reminder and health news. The second one providing health status and suggestions based on symptoms which are filled in by users. The third one simply book an appointment at the hospital. The information can be automatically filled in in some cases. The fourth one allows user to buy medicines, manage their orders and view history. The final one includes Anamnesis (history of consultancy and booking), family contact (save family’s information to use in emergency situation), drug allergy (know user’s allergy to avoid giving wrong drugs), master/visa card (save some vital information for payment), log out, support center and about us.

# System analysis

## DFD Context

This DFD show all the data stores and external entities that connect to the system.

A screenshot of a cell phone

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## DFD Mobile App

The DFD Mobile App shows actions, data stores and external entities in using mobile phone.

A screenshot of a computer screen

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# Details

## Mobile Application

### BPMN

### Description

### Validation

## Check-in station

### BPMN

### Validation

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### Description

### Validation

## Test and Examination Center

### BPMN

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### Description

### Validation

## Pharmacy Station

### BPMN

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### Description

### Validation