



# **CAPSTONE PROJECT REPORT**

**EasyDoctor - An e-health platform that connects  
patients and doctors**

**Report 1 – Project Introduction**

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### I. Record of Changes

| Date       | A*<br>M, D | In charge | Change Description |
|------------|------------|-----------|--------------------|
| 08/04/2022 |            |           |                    |
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\*A - Added M - Modified D - Deleted

## II. Project Introduction

### 1. Overview

Project name: **EasyDoctor - An e-health platform that connects patients and doctors**

Project code: EasyDoctor

Group name: IS1401\_40

Software type: Website

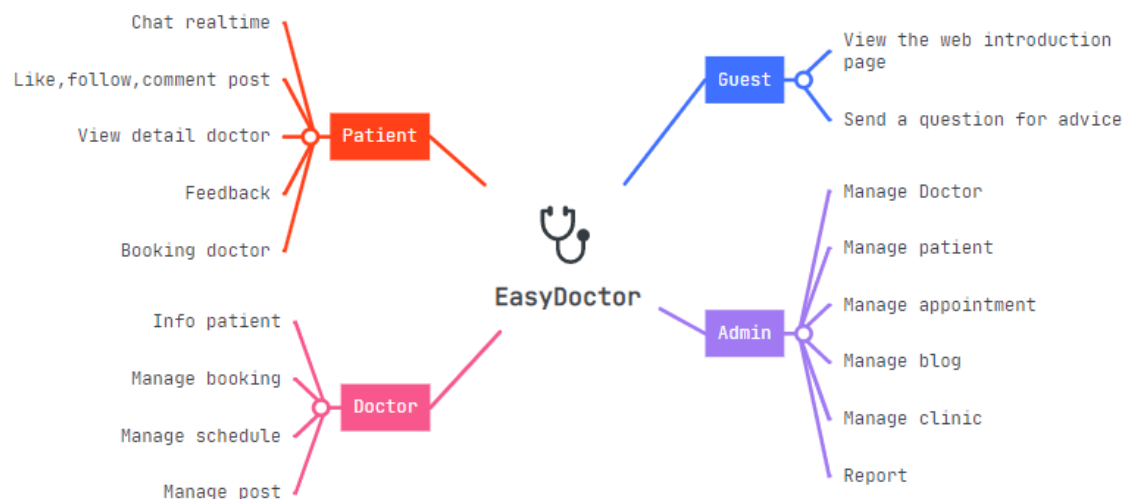
#### 1.1 Project Objective

With the desire to bring value to society, help patients save time in the booking appointment with doctors at clinics, and increase satisfaction during medical examination, in this project, our goal is creating a medical platform that connects patients and doctors.

**EasyDoctor** focuses on providing functions to patients to book appointments with doctors that they want or doctors around their residence by the website system. In addition, with our system patients send ratings and feedback about doctors, and read health information from an official document that is provided to doctors.

Besides that, we also tried to create a simple interface that focuses on the main tasks so that people without technology knowledge can use it easily.

Below are major features of EasyDoctor system:



**Figure 1: Major Feature**

There are 4 main roles in this system: guest, patient, doctor, admin. Guests can view the web introduction page and send a question to the admin. Patients can view detailed information about the doctor, book, cancel, and reject an appointment. Besides that, they can comment, follow, like posts on the blog. On the doctor's end, they may manage their appointments and schedule their examinations, and can post articles on the blog. Admin can manage doctors, patients, manage appointments, view reports about the system.

## 1.2 Project Team

| Full Name              | Role       | Email                       | Mobile     |
|------------------------|------------|-----------------------------|------------|
| Ha Thi Thao, M.Sc      | Supervisor | ThaoHT32@fe.edu.vn          | 0964638028 |
| Tổng Phước Gia Huy     | Leader     | huytpgde140306@fpt.edu.vn   | 0362529468 |
| Phan Huỳnh Chiến Thắng | Member     | thangphcde140130@fpt.edu.vn | 0355210079 |
| Lê Quang Long          | Member     | longlqde140106@fpt.edu.vn   | 0375038444 |
| Châu Thái Sơn          | Member     | sonctde130051@fpt.edu.vn    | 0343059474 |
| Trương Văn Huy         | Member     | huytvde140135@fpt.edu.vn    | 0334947474 |

## 2. Product Background

The Covid epidemic has broken out in the world since 2019 and until now has not stopped. According to the Ministry of Health, as of August 2022, Vietnam has [11,364,355 cases, with 43,097 deaths](#). It makes society and the economy affected by the pandemic. Control activities that have taken place include restrictions on freedom of movement.

This makes visiting hospitals and clinics difficult, time-consuming, and potentially infectious. Patients have to spend time waiting for medical orders with many complicated medical examination procedures, which increases the cost of medical examinations.

Understanding this problem, in this project, we propose a platform that connects doctors with patients. This makes it easy for anyone to book a quick appointment with a doctor and increases patient satisfaction, saves time and increases the selection of quality doctors. Healthcare providers are willing to pay for quality systems that can help manage their doctor appointments and other activities more efficiently.

Unlike current manual booking processes, patients using our appointment booking system will not have to go to the clinic to get their order number, as long as a computer is connected to the Internet, the patient can access it easily. In addition, patients can also choose a doctor according to their wishes, and send feedback, read health information from an official document source.

## 3. Existing Systems

According to our study, there are two notable apps in this application domain: AI Health and eDoctor.

### 3.1 AI Health

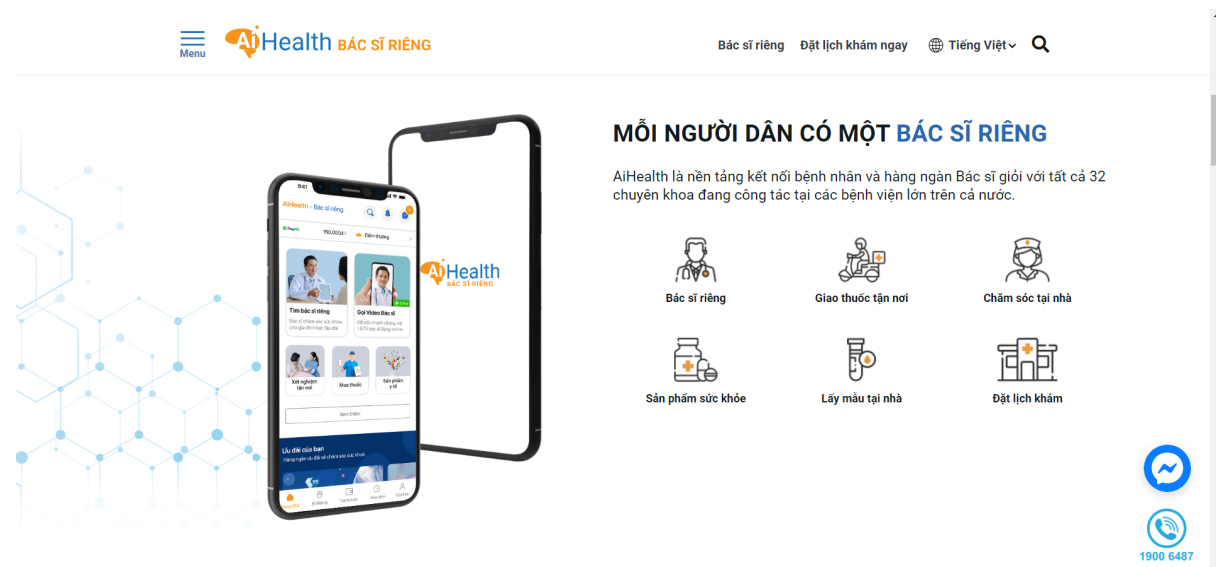


Figure 1: AI Health

AIHealth - Family doctor platform is used to integrate personal health management records to serve primary health care for people and for every home.

AIHealth is an online technology platform that provides users with one-touch healthcare services. Some outstanding features of that application are as below:

- Electronic health records
- Personal doctor
- Book an appointment
- Delivery of drugs to the place
- Care at home

According to our assessment, AIHealth has certain advantages and disadvantages.

#### Advantages:

- Quickly connect to a highly qualified doctor
- Easily detect basic diseases, usually through external manifestations
- Certified by Vietnam's Ministry of Health
- Large network of many doctors and many hospitals

#### Disadvantages:

- The consulting package is quite high when it comes to 450,000 VND per month, while now there are free consulting websites available.
- The popularity of the application is not widely available to everyone. Not covered in many provinces, when looking for a doctor, only in Ho Chi Minh.

### 3.2 eDoctor



**Figure 2: eDoctor**

eDoctor is a mobile application for health care and monitoring for all subjects. eDoctor supports users to book appointments at some clinics, request medical examinations and tests at home. This application is also programmed quite well when allowing users to create online medical records to track the progress of medical examination and treatment, medical history of themselves and their families.

This app includes some salient features shown as below:

- Health management
- Counselling for health promotion and disease prevention: counselling on nutrition, physical activity, risk factors affecting health, vaccination and prevention of non-communicable diseases.
- Screening, early detection of diseases
- Chat with doctors 24/24
- Electronic health records
- Personal doctor
- Book an appointment
- Delivery of drugs to the place

It has some advantages and disadvantages in our opinion:

**Advantages :**

- Quickly connect with a highly qualified doctor
- Easily detect underlying diseases, often through outward manifestations
- Quick lookup of health information
- Many useful health news
- Certified by Vietnam's Ministry of Health
- Store records online and absolutely PRIVACY personal information

**Disadvantages :**

- Only get 1 free time, the rest have to buy for 30,000 VND for a consultation.

**4. Business Opportunity**

As our surveys have shown in section 2, the appointment booking applications have appeared a lot in the Vietnamese market, but most of these applications integrate too many functions and costs for the application usage is high compared to the general income level of people in Vietnam. In addition, many patients want to book an appointment online with simple and easy-to-use operations that even the elderly can use. Our system is focused on solving the problem of appointment booking. With our system, patients will not have to wait long for each medical examination, saving travel costs and time. Patients can easily contact doctors. Doctors can view patient medical records, adjust schedules, and manage appointments.

With the above market potential and demand, the system can collect money from doctors who pay a part of their revenue as a commission for each appointment booked through the app. Paying doctors will appear at the top of the list, which will increase the number of patient appointments. Patients can pay through the platform during each clinic visit.

Our system focuses on solving the problem of booking an appointment in Da Nang, then expands the coverage nationwide and adds many other features.

**5. Software Product Vision**

For patients, who need to make an appointment with doctors at clinics. EasyDoctor is a medical platform that connects patients and doctors. This system aims to bring the best patient experience to help solve health problems, save time, choose their top doctor, simplify the doctor search process, optimise the booking process, and advance the medical knowledge delivered by our top doctors. Unlike the current manual processing booking, our product focuses on solving the problem of appointment booking to ensure that the appointment goes smoothly, the patient can cancel the appointment if needed, and the



doctor can also manage the appointment. Initially, we only focused on the Da Nang market, later we will apply and develop it for the whole of Vietnam so that everyone can access it more easily.

## **6. Project Scope & Limitations**

### **6.1 Major Features**

#### **6.1.1 Role *guest***

FE-01: Guests can view the web introduction page.

FE-02: Send a question for advice.

#### **6.1.2 Role *patient***

FE-01: Patients can book, cancel, reject an appointment.

FE-02: Comment, follow, like, share on the blog.

FE-03: View detailed information about the doctor.

#### **6.1.3 Role *doctor***

FE-01: The doctor can manage the appointment.

FE-02: The doctor can change the schedule information, examination package.

FE-03: Doctors can easily post articles on the blog.

FE-04: View the patient's medical history.

#### **6.1.4 Role *admin***

FE-01: Admin can manage doctors.

FE-02: Admin can manage patients.

FE-03: Admin can manage appointments.

FE-04: Admin can view reports about the system.

### **6.2 Limitations & Exclusions**

LI-1: The system is only limited to the management of patients and doctors in the clinic.

LI-2: System writes log each time user action updates or inserts.

LI-3: The system has a limited number of doctors in the Da Nang area.

LI-4: Haven't built a mobile app for patients yet.

LI-5: The system has not yet integrated online payment.