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| vietnam national university – ho chi minh city international university |
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| Web application development |
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# Introduction

## Motivation

It is a concern for every family and every person about their own health. Nowadays, it is not such an easy thing to get access to doctors and medical needs. Often it is the case that hospitals are situated far from one’s home, and they are often full, and queuing to meet with the doctor often takes a long time.

## Problems Statement

The purpose of our project is to design an interactive webpage for doctors and patients alike. We aim to provide a platform for doctors and patients to interact, make appointments, etc., and to be able purchase medicines and medical equipments. Such a platform can greatly increase communication efficiency of patients and doctors, reducing time consumed on medical needs, making medical care more accessible to people.

## Scope

Our system is intended to be a hybrid of the medical E-commerce system, and the doctors booking system. Our system allows patients to select doctors, and make appointments. We do not implement a feature for 1-on-1 chat, or doctor-patient communication from our system (but it can be done with third-party applications). Doctors can manage patients, and appointment schedules, but are not allowed to make purchases (unless they are also the patient). They are allowed to make and manage prescriptions, but the choice of purchasing is left for the patient.

# Literature Review

## Similar Applications/Systems

There are various similar systems and applications:

* UMC medpro: An online doctor booking platform by the university medical center HCMC.
* Medicare: An E-commerce platform focusing on medical products.
* Hello Doctor: A chain of clinics, which also offer a platform for doctor appointments.

There are also various other platforms for these purposes, most of them are for booking of doctors. Medical e-commerce systems are relatively uncommon.

## Platform and Tools Review

The UMC medpro system by the University Medical Center HCMC allows for easy appointment booking of doctors. However it is limited to appointment and scheduling only.

The medicare system is an e-commerce application focusing on medical products. However it lacks the interactive features of the umedpro system. It also does not allow access to experts for guidance on the medical matter.

There are various other online doctor appointment booking platforms or medical e-commerce platforms, but they all have these weaknesses.

# System Design

## System Requirement Specification

## System Design Specification

# System Implementation

# Conclusion and Discussion

## List of accomplished work

We managed to implement a complete system with the intended features, and a user-friendly interface. It is not without faults, however, but it is functional, and is easy to maintain and fix, should any issues arise.

## Strength and Weakness

Our strength:

* We had clear and concise planning before implementation.
* We applied the MVC framework to a complete project.
* We utilized many different technologies, including (but not limited to): Apache Maven, Javascript, Bootstrap, MySQL database system.
* We were able to effectively utilize Git for easy collaboration.

Our weaknesses:

* Our time management was not very good, so we were more fast-paced towards the end.
* Our project was not completely without errors. It was functional, but may require additional work towards the long run.
* We needed to simplify several functions from our initial plan, due to not having enough time, and not having the knowledge and experience to do all of them.

## Future Work

There are various room for improvement for our project:

* Our project is not error-proof.
* There are room for more features.
* We can improve our interfaces for better user experience.

# References