## 1. Project Information

* Project name: **Dental Clinic System**
* Product Type: **Web Application, Mobile Application.**

## 2. Introduction

We would like to introduce about our project, which will be close to the patients of dental clinics. Nowadays, it is difficult to book appointment with dental clinics or dental clinics is difficult to manage the appointment of patients. Besides that, Dental clinics save their data on paper, it is difficult to manually manage data. The patients can’t not handle their medical history or follow their current treatment. There are the big problems with both patients and dental clinics.

Build the web application and mobile application that allow patients and dental clinics can resolve the above mentioned things. With the web application, dental clinics can marketing for them, manage appointment, manage basic data of clinics. With the mobile application, patients can book appointment on this, check their medical history and current treatment. Dentists can view profile of patients who been examined by them, the scheduler of their work. Patient can payment their bill online.

We hope this application will affect positively on the dental industry as well as. In future, we intend to extend the system to connect every dental clinic. They can share the medical history of patients if these patients change to other dental clinics.

## 3. Current Situation

Nowadays, we have many dental clinics in Viet Nam. Many people suffer from dental problems, not just tooth extraction. They want to clean their teeth, make it beautiful. So, many people will go to dental clinic. The more people who come to the clinics, the harder it is to manage large amounts of information from patients. The online market has a lot of dental management software. Most of them are just offline management software that only interact with patients through the website. Nowadays mobile phones are growing, people use phones everywhere. Creating a mobile application to create interaction between the dental clinics and the patients is great and convenient. It saves both patients and clinics time. On the other hand, it facilitates the monitoring of medical records without having to visit the clinic. We will create a mobile application and website application for both patients and dental clinics, it will make the treatment process become more convenient.

## 4. Problem Definition

**Advantage of current system:**

* Cheaper.
* No mobile application required for booking.
* Data is saved by paper, so it’s difficult to lose the data.
* Easy usage because less function.

**Below are disadvantages of current situation:**

* Difficult to manage data.
* Reception must be answered patients phone call for booking appointment.
* Not easy to manage booking appointment scheduler.
* Some patients will wait very much in the first time go to dental clinics without booking appointment.
* Patient can’t not follow their treatment.
* Current application is limited the number of computer for used
* Difficult to manage clinic remote

## 5. Proposed Solution

Our proposed solution is to build a system can handle the dental clinic automatically and modernization by website and mobile application.

DCS includes a mobile application and web application with following features:

## 6. Role and Responsibility

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Full Name** | **Role** | **Position** | **Contact** |
| 1 |  |  |  |  |
| 2 |  |  |  |  |
| 3 |  |  |  |  |
| 4 |  |  |  |  |
| 5 |  |  |  |  |

**Table 1 Roles and Responsibilities**

---------------------------------------------oOo----------------------------------------------------------------

1. Theory and practice (document):

* Student should apply the software development process and the UML
* Software artifacts include User Requirement, Software Requirement Specification, Architecture Design, Detail Design, System Implementation and Testing Document, Installation Guide, sources code, and deployable software packages
* 3 tiers should be applied
* Server side technique:
  + Database design, OOA, OOD, OOP, MVC, .Net , Java technology and so on
* Client side technique
  + HTML5, CSS, JavaScript, JQuery, Ajax, Angular, React Native, Ionic and so on
* Communication technique
  + Exchange information and transfer data effective in multiple application by web services and notify based on cloud computing
* Research
  + Algorithms, frameworks and cloud computing

1. Program:

* Mobile application functions for patient
* Patient register on mobile application with business information (full name, position, main phone, other-info**)**
* Registered information is written to database server from mobile application via web service
* Patient can book schedule appointment , view booking list, … via mobile /web application
* Receive and manage feedbacks from patient
* Receive inform messages from clinic.
* Web application functions
* Booking
* Clinic management
* Send inform messages for patient
* Report
* Data service application
* Provide data services for mobile application and web application
* Perform data security .