



[DrDentAssist](#)

**Project documentation submitted to the
Faculty of the School of Computing and Information Technology of
Asia Pacific College**

**In partial fulfillment of the requirements for the subject
Applied Projects 2 of CSPROJ**

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Vision and Scope Document

For

DRDENTASSIST

Version 1.0 approved

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June 14, 2017

Revision History

Name	Date	Reason For Changes	Version
<ul style="list-style-type: none">▪ Maria Kristina Punla▪ Reimarie Princess Quirante▪ Chloe Tanada	June 16, 2017	First Draft	1
Maria Kristina Punla	June 26, 2017	Removed all documentations about patient's record.	2
Maria Kristina Punla	June 26, 2017	Update Background.	3

Executive Summary

DrDentAssist has been created and developed by a group of BSIT Students in Asia Pacific College under CSPROJ2 Class SY: 2017-2018 Term 1 for Happy Clinique Dental services. Happy Clinique caters to both dental, dermatology and diagnostic services. They still use the traditional way of maintaining records for their services to their clients. To be at par with competitors, Happy Clinique needs to adapt to current trends in technology by providing a website that will showcase their services and interact with customers.

The team decided to create and develop an online booking system for Happy Clinique. Aside from the online booking system the team will also create a system that will contain the patients' record.

Patients will now have a website to visit to book or make appointment with the clinic for their dental or dermatology services. Employees of the clinic will now have a user-friendly system to assist their patients with reservations, assist doctors with their appointments and pull up patient information.

Project Context

This project will be used by Happy Clinique for their dental and dermatology service reservations, as well as managing their patient records. This paper is written for the purpose of showing how the DrDentAssist works.

Purpose and Description

The team aims to provide Happy Clinique an efficient and reliable booking system. The project also aims to assist Happy Clinique in efficiently managing patient records.

Objectives

General Objectives

Major goal of the system is to replace the manual appointment system of the clinic and to make their patient record, paperless. As a goal, the clinic is expected to have more customers as they have the convenience to check the availability of their Doctor rather than wasting fare money and time to go to the clinic. It also aims to increase productivity in the clinic.

Specific Objectives

- to provide Happy Clinique an efficient website with online booking system; and
- To completely transition patients' record from paper to paperless.

Business Requirements

Background

This paper will site the creation of DrDentAssist. Base on the research and observation of the project team. The clinic still practice the walk in appointment method, their patient record is still the traditional index cards filed in big bulky cabinets. Aside from a copy of the payment receipts of patients they do not have any other way of tracking or recording the payments that they received.

The proposed system will resolve all issues and problems of Happy Clinique and will let them achieve their goal of providing a quality care of service to their patients.

There are many reasons or factors that affects patient satisfaction and one of it is, "wait time." Based on study, "After 20 minutes of waiting, patients think their time is being wasted." (Preece, D.).

The aggregate of time patients devoted in waiting, in an office or clinic may appear to be a small aspect when it comes to patient satisfaction. But it can actually have a big effect. A recent Software Advice survey found a staggering 97% of patients were frustrated by wait times (Lafolla, T. (2017).Infographic: How to reduce wait times).

"Patient satisfaction is considered as an important indicator of quality care provided in emergency departments" (Yarnold PR, Michelson EA, Thompson DA, Adams SL (1998) Predicting patient satisfaction: a study of two emergency departments. J Behav Med 21: 545-563).

To be at par with competitors, Happy Clinique needs to adapt to current trends in technology. They are on social media right now and they do have an outdated static website. Happy Clinique needs to revamp their outdated site in order to provide an efficient system for their staff to use and for their prospective clients or patients to visit so it would increase their client demographics.

With the online booking system feature of the website we are expecting a significant change with their patients' appointment that will totally minimize patients wait time. That will increased patients' satisfaction.

Aside from the online booking system, the project team have added a feature in the system that will records patient information. The team realizes the importance of a database management system.

According to Scott Knickelbine, having your information in a database, instead of paper or in spreadsheets, not only saves you time and preserves vital information, it allows you to see patterns in operations that are visible in no other way.

The system-generated reports will assist business owner to project their revenue and make plans for a foreseeable growth. In addition, the proposed system will have a feature of recording payment received. In relation to keeping their patients record online. Recording payments received will help them track their revenue.

Business Opportunity

An online booking system for the clinic is efficient, accurate and effective for both parties because it will save them time, money and effort. Patients do not need to wait in line for a dental or derma service. No more missed appointments or over acceptance of patients.

The internet is a proven avenue for improving a business in all other aspects like marketing.

The team believes that by converting the traditional method of booking and patient's record to online will provide more revenue to the owner and quality service to the patients.

Business Objectives and Success Criteria

Major goal of the system is to replace the manual appointment system of the dental Clinique. As a goal the clinic is expected to have more customers as they have the convenience to check the availability of their Doctor rather than wasting fare money and time to go to the clinic.

Customer or Market Needs

- Efficiency of the booking system.
- User friendly system.
- 24/7 availability.

Business Risks

The approach for managing risks for the DrDentAssist Project includes a methodical process by which the project team identifies, scores, and ranks the various risks. Every effort will be made to proactively identify risks ahead of time in order to implement a mitigation strategy from the project's onset. The most likely and highest impact risks were added to the project schedule to ensure that the assigned risk managers take the necessary steps to implement the mitigation response at the appropriate time during the schedule. Risk managers will provide status updates on their assigned risks in the bi-weekly project team meetings, but only when the meetings include their risk's planned timeframe.

Upon the completion of the project, during the closing process, the project manager will analyze each risk as well as the risk management process. Based on this analysis, the project manager will identify any improvements that can be made to the risk management process for future projects. These improvements will be captured as part of the lessons learned knowledge base.

Vision of the Solution

Happy Clinique has opened under new management last December 12, 2016 and have acquired many patients throughout time. The proposed system will provide a faster and easy way of booking an appointment to get a dental or derma service. The site will definitely increase their patients as they do not need to try their luck, waste time and money to get a service.

Vision Statement

This projects' vision is to provide our patient's dental and derma needs with the highest level of care, skill, judgment and comfort. We aim to adapt and grow to the new technologies that will grow in our society.

Major Features

User Login

The website will have a login and sign up features for the patient's side, dentist/doctors side and the admin side. Patients are required to sign up in order to book, so that the Clinique will be able to get important details.

Calendar

The website will have a calendar to show which day and time is open for reservation.

Design

The design of the system will be similar to the old site of Happy Clinique but will be more interactive.

Assumptions and Dependencies

The website will be available on Pc's and laptops and it will be mobile responsive. It will be hosted initially on a free DNS service. The Client can have the option to purchase a web domain. Server can initially run on the clinic's existing desktop but the team will be assisting the client in case of a future migration to upgrade platform.

Scope and Limitations

Scope of Initial Releases

Happy Clinique currently uses the traditional method of accepting appointment or reservations to their patients. In making an appointment, their patients has to walk in to their Clinique and book an appointment to avail the clinic's services. The site has a function of online booking

system and a feature of recording patient's information online, this will definitely revamp the clinics day to day operation.

Happy Clinique will have a website that will contain their products and services and will give their patients an option to book appointment online. The major feature of the site is the online booking system. Patients can now book online, anytime and anywhere they want.

The website will require patients to sign up which will register patients contact information to the system.

The project team will also add a feature in the website where admins of the site can record patient's payment.

Scope of Subsequent Releases

The scope of subsequent release for DrDentAssist are as follows.

- Mobile Application for both IOS and Android.
- Send to SMS confirmation of booking.

Limitations and Exclusions

The project range will focused on the booking/appointment features of the clinic website and will be limited to transitioning their manual records of patient to online records.

- The DrDentAssist website will only be web-based.
- No mobile app but will be mobile responsive.
- The DrDentAssist will service the Happy Clinique only.
- The DrDentAssist will only be available for dental and derma appointments.

Business Context

Stakeholder Profiles

Stakeholder	Major Value	Attitudes	Major Interests	Constraints
Leticia Aspiras (Owner)	Increased revenue	Sees the system as avenue to 35% increase of revenue and patients.	Increase in revenue and increase in new patients.	Budget and Time.
Doctors/Dentists	Efficient and accurate appointments with patients	Expects an organized scheduling of patients	Efficient scheduling of patients.	Adaptability to the new system
Receptionist	Quick access to patient's scheduled appointment	Flexibility in adapting to the new system.	Ability to cope up with the new online system.	Adaptability to the new system.

Project Priorities

Dimension	Driver (state objective)	Constraint (state limits)	Degree of Freedom (state allowable range)
Schedule	Release 1.0 to be available at the mid of the course	Time Constraint	90% -100% of the main functions and features must be done.
Features	The system must be running.	Budget and Time.	70-80% of high priority features must be included in release 1.0
Quality	Provides a user friendly booking/appointment website for Happy Clinique.	Errors in the system.	90-95% of user acceptance tests must pass for release 1.0, 95-98% for release 1.1
Staff	The team is determined to and goal oriented to complete the project on time.	Time and schedule conflict.	85% -100 % of the time committed for the project should be achieve for release 1.0
Cost	The overall expense should not exceed the allotted budget for creating the system.	Maximum Budget	Exceeding the budget of 10 to 15% is still acceptable.

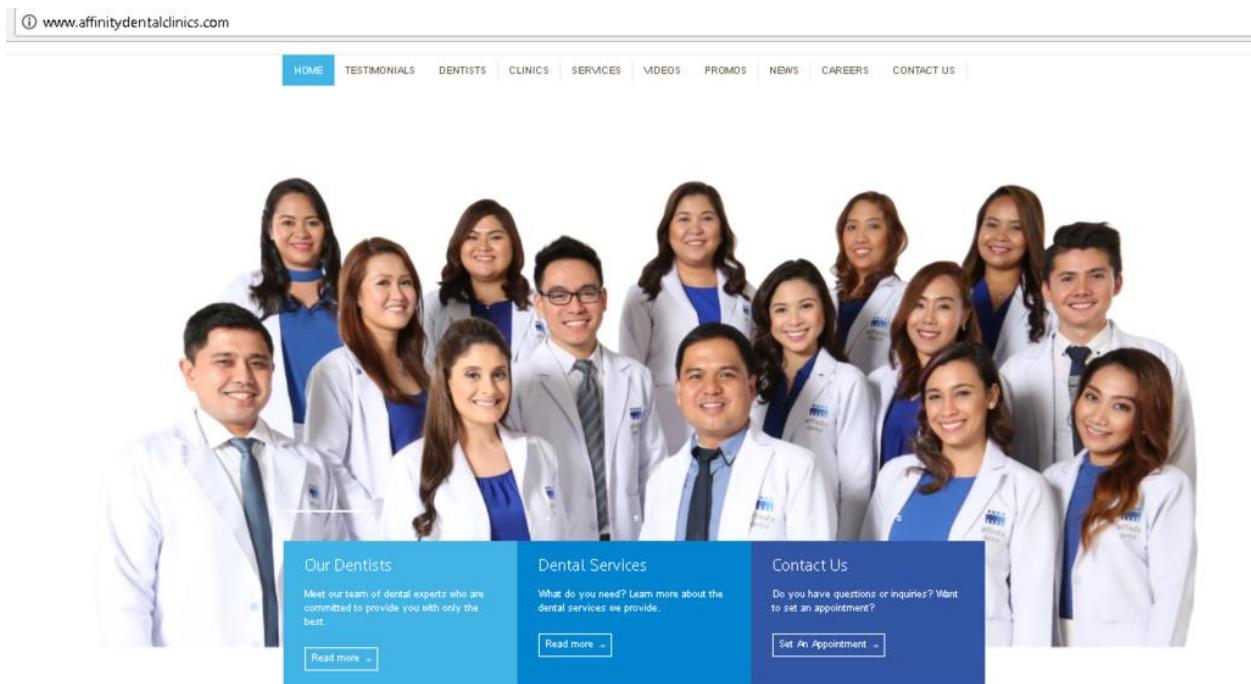
Operating Environment

The new and improved Happy Clinique website will be replacing their manual booking/appointment system. The system will be created via Laravel Framework. The user of the systems will be the receptionists, the dentists and the patients who manages their appointment for dental service. System will provide a 'no service interruptions' or continuous access to the system. The system will have a username and password feature for security reasons on both the clinic side and patients.

Review of Related Works

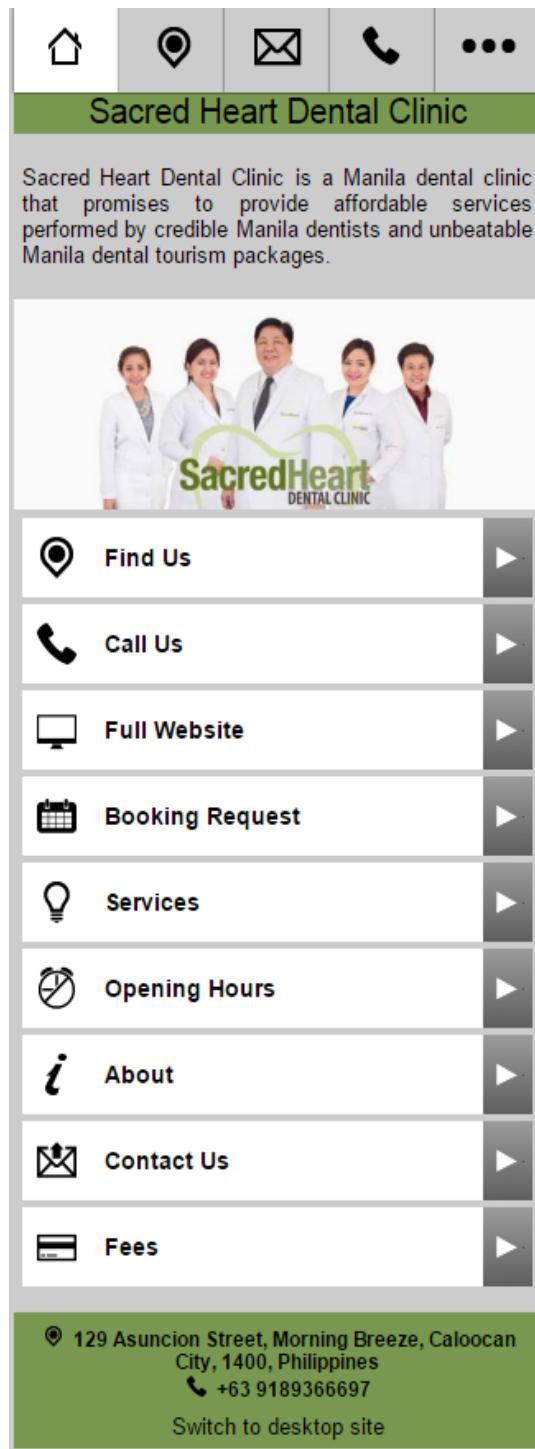
A. Affinity Clinic (<http://www.affinitydentalclinics.com/home/about-affinity-dental/>)

Affinity Dental is committed to operate the best chain of dental clinics that delivers the highest quality dental care at the most affordable cost.



B. Sacred Heart Dental Clinic (<http://filipinodentist.com/>)

Sacred Heart Dental Clinic is one of the best Manila dental clinic that specializes in dental tourism.



The image shows a mobile screenshot of the Sacred Heart Dental Clinic website. At the top, there is a navigation bar with icons for Home, Location, Email, Phone, and More. Below this is a green header bar with the text "Sacred Heart Dental Clinic". The main content area features a photograph of five dental professionals (four women and one man) standing together, with the "SacredHeart DENTAL CLINIC" logo overlaid. Below the photo is a vertical list of links: "Find Us", "Call Us", "Full Website", "Booking Request", "Services", "Opening Hours", "About", "Contact Us", and "Fees". Each link is accompanied by a small icon. At the bottom of the page is a green footer bar containing the address "129 Asuncion Street, Morning Breeze, Caloocan City, 1400, Philippines", the phone number "+63 9189366697", and a link to "Switch to desktop site".

Technical Background

"Laravel is a web application framework with expressive, elegant syntax. We believe development must be an enjoyable, creative experience to be truly fulfilling. Laravel attempts to take the pain out of development by easing common tasks used in the majority of web projects, such as authentication, routing, sessions, and caching.

Laravel aims to make the development process a pleasing one for the developer without sacrificing application functionality.

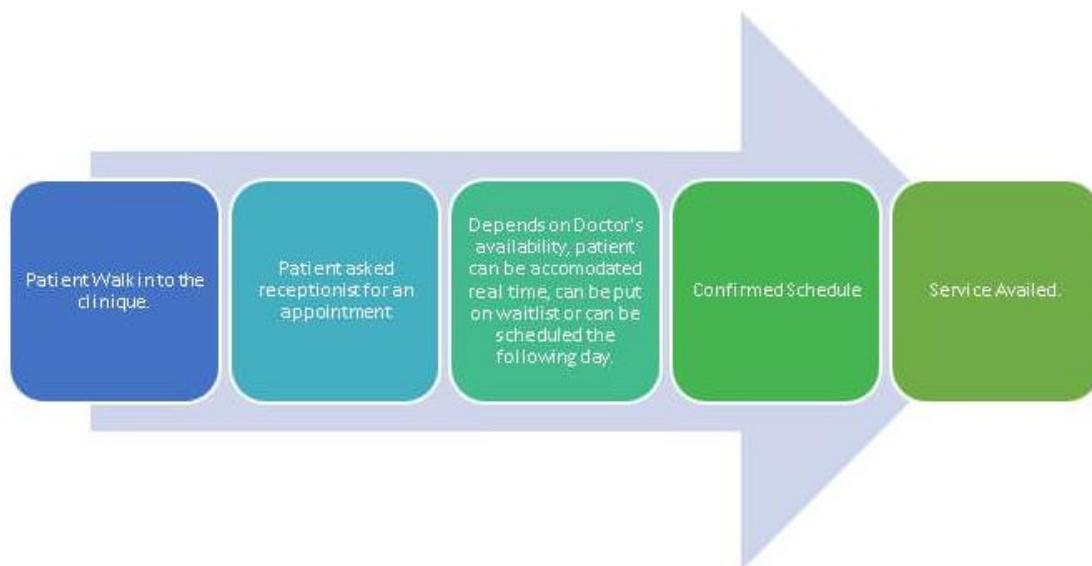
Laravel is accessible, yet powerful, providing powerful tools needed for large, robust applications. A superb inversion of control container, expressive migration system, and tightly integrated unit testing support give you the tools you need to build any application with which you are tasked." (<https://laravel.com/docs/4.2/introduction>)

Methodology, Results and Discussion

Requirements Analysis

Happy Clinique has been with the business with quite a while but has been under new management since December 12, 2016, and they have been acquiring new patients as well as introducing new services such as dermatology services. They need a website that will be used by the clinic and their clients for reservations. The management of Happy Clinique would also like to completely transition their patients' record online. The team also decided to add a payment feature in the website that will records patients' payment for recording purposes.

Below is a diagram of the Clinic's current process.



Requirement Documentation

- Patient must sign up to have an account.
- Only patients with account can request for an appointment.
- Doctors and Reception Admin can manage appointment schedule of patient.
- Therapist can only view patients appointment schedule
- Doctors can manage patients' record.
- Reception Admin to manage payments
- Reception Admin to manage Doctors Schedule.

Gap Analysis

Gap Analysis		
Current Process	Future Process	Action/Proposal
Patient walks-in to the clinique for reservation	Patient can access the website for appointment request.	The website will have a booking option for patient to send their request for appointment.
Patient can not be accomodated for the day.	Patient will know through email confirmation if appointment request has been approved.	The website will send an email confirmation to user about patients reservation.
Doctors extend hours to service all who walked in for the day	The system will show how many patients are book for the day giving the Doctors idea on how more or less can they accommodate.	The website will show Doctors availability. Patient will have the options of what schedule would they like to reserve.
Patient records are all in papers and filed in a big cabinet.	Patient records will be paperless.	Patient record will be save to a database and only admins has access to it.

Design of Software, Systems, Product, and/or Processes

System is developed with Laravel framework. For each table in the database are generated with create, read, update, and delete feature depending on the needs of the system. To accomplish the main function of the prototype, the model, view and controller of the framework are revised including the database model.

Development and Testing

The team uses agile methodology. Business needs to cope up with the fast paced business environment. Using Agile will allow the team to do changes and iterations to the system to improve it.

Description of Prototype

The DrDentAssist is an online booking system that is web based. It will be mobile responsive in order for users to have ease of access when using a mobile phone when accessing the website. The front end contains the Welcome page. On the upper right of the page, it will include login button and the register or sign up button. At the lower left hand side will consist of the "Book" button which will let the users request for an appointment.

The backend differs from the front end where admins of the website have more permission than the regular users. The backend will consist of the Doctors schedule that can be updated or modified. It will also provide the Doctors and the reception admin to accept or reject a requested appointment. Furthermore this will hold the payment page where the reception admin records the patients' payment.

Implementation Plan (Infrastructure/Deployment)

Once the system deploys to the clinic, it will be then administered by the clinic staff, providing admin access to Doctors and Reception admin but still differs on permission depending on their role. Patients can access the website but permission is restricted. While Admins would have the capability to manage appointments, patient record and schedules.

Conclusions and Recommendation

Throughout the course of our project, we came up with three general conclusions:

- There is a potential growth in business if you will take it online.
- There will always be limitations when creating the project like time constraint and cost.
- Overall teamwork plays a big role in completing the project.

Statement of Work

For

DRDENTASSIST

Version 1.0 approved

Prepared by:
Maria Kristina Punla
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Asia Pacific College

June 14, 2017

Introduction/Background

Happy Clinique has recently approved the DrDentAssist in support of its strategic plan to enhance marketing and customer service. To provide more timely feedback to improved customer interaction, the DrDentAssist will focus on building a content rich website which provides a simplified and more user-friendly approach for existing and potential customers. It is imperative that Happy Clinique utilizes its web site as a platform for communicating new services, recent news, and other health information. Happy Clinique also realizes the importance of working with customers to develop tailored consulting solutions which the new web site will allow the ability to do. In order to accomplish this, Happy Clinique seeks to outsource the design, testing, implementation, and training for the new website. Happy Clinique anticipates that its new website will move the company forward in its multi-tiered approach to winning new clients and capturing additional market share.

Scope of Work

The scope of work for the DrDentAssist includes all planning, execution, implementation, and training for a new public-facing internet site for Happy Clinique. The selected project developers will be responsible for the design of the new website based on feedback to be provided by Happy Clinique. Each stage of the project will require approval from Happy Clinique management before moving on to the next stage. The selected project developers must ensure it has adequate resources for designing, building, testing, and implementing the new web site and is staffed for the training of Happy Clinique personnel as well. Specific deliverables and milestones will be listed in the Work Requirements and Schedules and Milestones sections of this SOW.

Period of Performance

The period of performance for the DrDentAssist is less than 2 months (54 days) beginning on 7 June 2017 through 1 August 2017. All work must be scheduled to be completed within this timeframe. Any modifications or extensions will be requested through Happy Clinique and CSPROJ2 professor for review and discussion.

Place of Performance

The project developers for the DrDentAssist will perform a majority of the work at its own facility. The developers will be required to meet at Asia Pacific College facility once per week (every Saturday at 11:30 A.M) for a weekly status meeting with the project adviser. Additionally, all project gate reviews will be held at Asia Pacific College facility and attended by the developers. Once the project reaches the training phase, all training will be conducted at Happy Clinique's facility.

Work Requirements

As part of the DrDentAssist the developers will be responsible for performing tasks throughout various stages of this project. The following is a list of these tasks which will result in the successful completion of this project:

Kickoff:

- Project developers will create and present detailed project plan including schedule, Work breakdown structure, testing plan, implementation plan, training plan, and transition plan
- Project developers will present project plan to Happy Clinique for review and approval

Design Phase:

- Work with Happy Clinique to gather requirements and establish metrics
- Create site design based on collected requirements
- Develop site design proposal for Happy Clinique review and approval
- Present written status at weekly meeting

Build Phase:

- Project developers will complete all coding for approved site design
- Project developers will include all content provided by Happy Clinique on redesigned web site
- Project developers will resolve any coding and site issues identified in testing
- Project developers will compile a testing report to present to Happy Clinique for review/approval
- Present written status at weekly meeting

Implementation Phase:

- Project developers will implement the newly redesigned web site on Happy Clinique servers
- Present written status at weekly meeting

Training Phase:

- Project developers will provide training in accordance with approved training plan provided in the kickoff
- Present written status at weekly meeting

Project Handoff/Closure:

- Project developers will provide Happy Clinique with all documentation in accordance with the approved project plan
- Project developers will present project closure report to Happy Clinique for review and approval
- Project developers will complete the project requirements checklist showing that all project tasks have been completed
- Present written status at weekly meeting

Schedule/Milestones

The below list consists of the initial milestones identified for the DrDentAssist:

RFP/SOW Release	June 21, 2017
Project developers Selection Review	June 7-13, 2017
Project developers Selection	June 14, 2017
Period of Performance Begins	June 23, 2017
Website Design Review	June 29, 2017
Website Implementation Review	July 27, 2017
Implementation Complete	August 1, 2017
Project Completion Review	August 2, 2017
Project Closure/Archives Complete	August 23, 2017

Acceptance Criteria

For the DrDentAssist the acceptance of all deliverables will reside with Happy Clinique's owner. The owner will maintain a small team of three advisors in order to ensure the completeness of each stage of the project and that the scope of work has been met. Once a project phase is completed and the project developers provides their report/presentation for review and approval, the owner either sign off on the approval for the next phase to begin, or reply to the developers, in writing, advising what tasks must still be accomplished.

Once all project tasks have been completed, the project will enter the handoff/closure stage. During this stage of the project, the developers will provide their project closure report and project task checklist to Happy Clinique's owner. The acceptance of this documentation by Happy Clinique's owner will acknowledge acceptance of all project deliverables and that the project developers have met all assigned tasks.

Any discrepancies involving completion of project tasks or disagreement between Happy Clinique and the chosen project developers will be referred to both organizations' contracting offices for review and discussion.

Other Requirements

All DrDentAssist project team members will submit security forms to Happy Clinique for clearance and access badges to the facility. All programmers and quality control team members will be granted access to Happy Clinique servers and all necessary IT functions. They will also be given temporary Happy Clinique accounts which are to be used only for work pertaining to the DrDentAssist. Upon completion of the project these accounts will be closed.

Software Requirements Specification

For

DRDENTASSIST

Version 1.0 approved

Prepared by:
Maria Kristina Punla
Chloe Tañada
Reimarie Princess Quirante

Asia Pacific College

June 14, 2017

Revision History

Name	Date	Reason for Changes	Version
Chloe Tañada	July 11, 2017	First Draft	1
Chloe Tañada	July 15, 2017	Second Draft	2

Introduction

Purpose

The purpose of Software Requirements Specification (SRS) is to provide a detailed explanation about the technical prerequisite of DrDentAssist. The requirements specified are implemented by the developers before the end of term. After the implementation, this will give the assigned administrator in Happy Clinique a documented guideline of the technical requirements and objectives of the system.

Document Conventions

This document was created in Microsoft Office 2016, with font sizes (12 – content, 14 – section, 18 – subtitles, 32 – title) and a standard font (Times New Roman). Typographical conventions are:

Typeface or Symbol	Meaning	Example
AaBbCc123	Bold font style was used on highlighted topics.	<ul style="list-style-type: none">1.3 Purpose1.4 Product Functions
AaBbCc123	Italicized fonts were used to emphasize a specific word.	Major functions the product must perform:

Intended Audience and Reading Suggestions

- Developers – The developers are those who manage the entire system. This document is used by developers as a guideline to create the functionalities required for the completion of the project.

- Technical Writers – The technical writers are the people assigned to prepare the user manuals and other requisite documents of the project.
- Testers/Users – The testers/user can examine and estimate the performance outcome of the system 'DrDentAssist and to be able to check the technical necessities whether the requirements had been accurately implemented.

For the full content of Project Product Scope

Please see Vision and Scope document.

Overall Description

Product Perspective

DrDentAssist is a new production for Happy Clinique. It is a replacement for the organization's traditional method in accumulating loads of patient records. For the organization to become flexible in their services and can cope up with the fast pacing technology world, the team developed a system (DrDentAssist) that can benefit both the customers and the company itself.

Product Functions

Major functions the product must perform:

- Online booking system
- Online documentation of the patient's dental and derma information
- Revamp the clinics day-to-day operation

Major functions the user must perform:

- Management
- Book appointment
- Cancel appointment
- View appointment history

User Classes and Characteristics

There are four types of users of DrDentAssist:

User	Activities
Administrator	<ul style="list-style-type: none">▪ Manage doctor's schedule▪ Manage payments▪ Manage appointment schedule▪ Re-schedule appointment
Doctor	<ul style="list-style-type: none">▪ View appointment schedule▪ Manage appointment schedule▪ Manage patient record
Therapist	<ul style="list-style-type: none">▪ View patient's appointment schedule
Patient	<ul style="list-style-type: none">▪ Create an account▪ Book an appointment▪ Cancel appointment▪ View appointment history

Operating Environment

- Digital Ocean Cloud (cloud-based)
- CentOS 7 (server-based)
- Windows 8 (minimum of 32-bit RAM)

Design and Implementation Constraints

- DrDentAssist design must meet the standards given by the client.
- DrDentAssist must perform validation check in user's input.
- The system uses phpmyadmin MySQL for the database.
- The system uses Laravel as the framework.
- PHP, CSS, HTML and JavaScript are being combined in creating the system interfaces.

User Documentation

A printed manual has been published to provide instruction on how to use DrDentAssist. The user manual contains written guidelines and has nontechnical terminologies so that the readers will have a better understanding about the given instructions. The user manual includes step-by-step procedures.

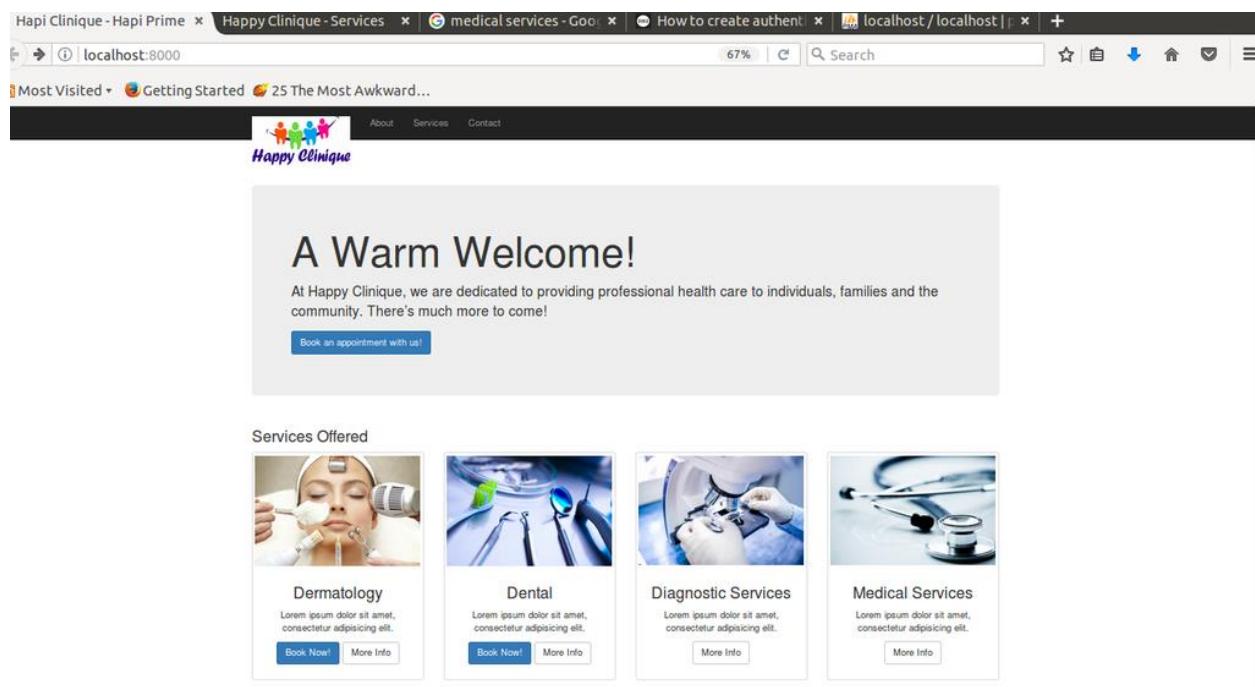
Assumptions and Dependencies

The website will be accessible on desktops and laptops and it will be mobile responsive. It will be hosted initially on a free DNS service. Client can have the option to purchase a web domain. Server can initially run on the clinic's existing desktop but the team will be assisting the client in case of a future migration to upgrade platform.

External Interface Requirements

User Interfaces

Screenshots of the system's user interface.





Happy Clinique

About Contact Register Log In

Services Offered



Dermatology

Lorem ipsum dolor sit amet, consectetur adipisicing elit.

[Book Now!](#)[More Info](#)

Dental

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[Book Now!](#)[More Info](#)

Diagnostic Services

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[More Info](#)

Medical Services

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[More Info](#)

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Happy Clinique

About Contact Register Log In

Register

Happy Clinique is dedicated to providing individuals, families, and communities with the best healthcare services available. We believe that everyone deserves access to high-quality medical care, no matter their background or circumstances. Our team of experienced professionals is committed to delivering compassionate, personalized care that meets the unique needs of each patient. We offer a wide range of services, from routine check-ups and vaccinations to specialized treatments and procedures. We also provide access to state-of-the-art medical equipment and technology, ensuring that our patients receive the most advanced care possible. We are always looking for ways to improve and expand our services, and we welcome feedback from our patients and the community to help us do so. Thank you for choosing Happy Clinique for your healthcare needs. We look forward to serving you!

First Name

Last Name

Username

Email Address

Password

Confirm Password

[Register Now](#)

[Book Now!](#)

Services Offered



localhost:8080/Booking_Management_System/#

The screenshot shows a website for "Happy Clinique". At the top right, there are "Register" and "Log In" buttons. Below them is a "Log In" form with fields for "Username" (containing "cotanada") and "Password" (containing "*****"). There are "Remember Me" and "Log In" checkboxes. A "Forgot Password?" link is also present. To the left of the form is a large, smiling family of four (two adults and two children) in a park setting.

Services Offered

Below the family photo, there are four thumbnail images representing different services: facial treatment, dental tools, surgery, and a medical professional with a stethoscope.

At the bottom of the main content area, there is a navigation bar with links for "About", "Services", "Contact", and "Logout".

Welcome to Happy Clinique!

Appointments

Lorem ipsum dolor sit amet, consectetur adipisicing elit. Saepe rem nisi accusamus error velit animi non ipsa placeat. Recusandae, suscipit, soluta quibusdam accusamus a veniam querat eveniet eligendi dolor consectetur.

[More Info](#)

History

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[More Info](#)

Survey

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[More Info](#)

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Dermatology
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Dental
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Diagnostic Services
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Medical Services
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[Book Now!](#) [More Info](#)

[Book Now!](#) [More Info](#)

[More Info](#)

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Book an Appointment

Preferred Date

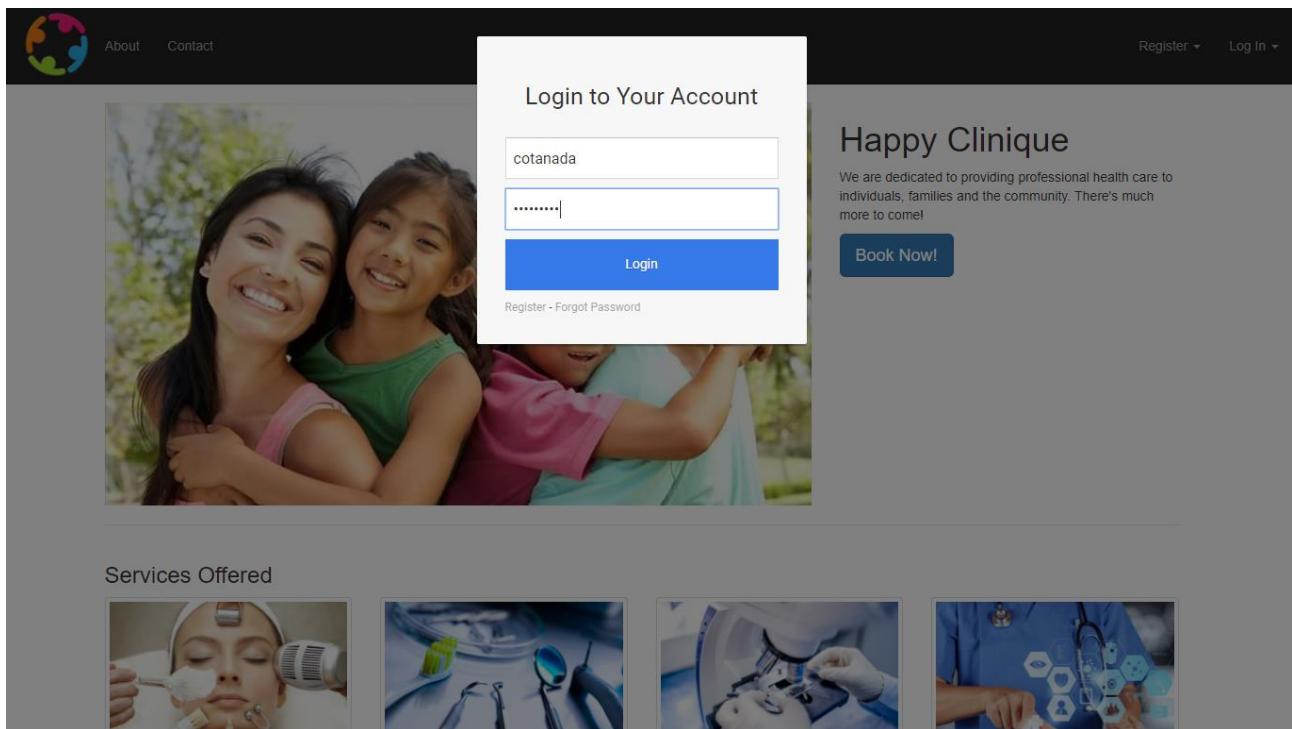
[Make an appointment](#)

Why Appointment with Us

24/7 Hours Available
Integer nec nisi sed mi hendrerit mattis. Vestibulum mi nunc, ultricies quis vehicula et, iaculis in magna estibulum.

Experienced Staff Available
Aliquam sit amet mi eu libero fermentum bibendum pulvinar a turpis. Vestibulum quis feugiat risus.

Easy To Use
Praesent eu sollicitudin nunc. Cras malesuada vel nisi consequat pretium. Integer auctor elementum nulla suscipit in.



Hardware Interfaces

- Hardware: Minimum System Requirement
- Processor: 2.4 GHZ processor speed
- Memory: 1GB RAM (2 GB recommended)
- Screen resolution: 800 x 600 colors or above

Software Interfaces

- Windows, Linux, iOS and Android operating system environment
- The user interface and other parts of DrDentAssist system were created using Laravel advanced framework, including HTML, CSS, PHP 5.4, Bootstrap.
- Browsers like Google Chrome, Microsoft Edge, Firefox, etc. is used for the viewing of the system.
- MySQL and PHP My Admin for the database.

Communications Interfaces

The patient will interact with the system through a web browser and can be accessible to the patient's computer and network; while from the admin side the system can be accessed using intranet. Any browser may use the system, from Google Chrome, Microsoft Edge and Firefox.

System Features

User Registration

A user is required to have an account to be able to manage the reservation online.

Description/Priority (User)

Users can create an account by completing the online registration and it is a high priority.

Stimulus/Response Sequences

Stimulus: A user creates an account by completing the registration form.

Response: The system will verify if the required information is valid i.e. username, password, email address and contact number. The system will store the information in the database and redirect the user to the login page.

Access, View, and Manage

Users can access, view and manage the necessary requirements accessible based on its user privilege (Receptionist, Doctor, Therapist, or Patient) upon logging in.

Description/Priority

User can manage his/her account upon logging in.

Stimulus/Response Sequences (Admin/Receptionist)

Stimulus: The admin manages patient appointments / doctor schedule upon logging in.

Response: The system will display all pending reservation or doctor schedule.

Stimulus: The admin approves/cancel the reservation in the calendar and/or edit doctor schedule.

Response: The system updates the information in the calendar. If the reservation is cancelled upon reason, the admin will select other available slot for reservation for the patient.

Stimulus/Response Sequences (Doctor)

Stimulus: Doctor views request appointments.

Response: The system will display the calendar.

Stimulus: Doctor either accept or cancel the appointment.

Response: If the selected date is cancelled, the system will notify the following users (Receptionist and Patient) and proceed to the reservation page to allow the user to file another reservation or not. If the date selected is accepted, the system will save the appointment schedule.

Stimulus/Response Sequences (Patient)

Stimulus: Patient views available schedule.

Response: The system will display the calendar.

Stimulus: Patient booked and send the requested appointment.

Response: Receptionist/Doctor will be notified.

Stimulus: Receptionist/Doctor will accept, cancel or edit the schedule.

Response: The patient will be notified.

Stimulus: If the approved appointment is cancelled by the patient, the system will notify the following users (Receptionist and Doctor) and proceed to the reservation page to allow the patient to file another reservation or not. While, if the approved appointment is confirmed by the patient, the system will save the appointment schedule.

Stimulus/Response Sequences (Therapist)

Stimulus: Therapist views scheduled appointments.

Response: The system will display the appointments.

Stimulus: Therapist confirms.

Response: Therapist will assist on the procedure of the service chosen by the patient.

Functional Requirements

- **REQ-1:** The admin/doctor/patient/therapist should have an account
- **REQ-2:** The admin/doctor/patient/therapist should be connected to the internet

Other Nonfunctional Requirements

Performance Requirements

- The responsiveness of the system depends on the speed of its internet connection of the user.
- The system should provide real-time information about the doctor's available schedule.
- Pending approval should be managed by the admin in order in which the reservation was received.

Safety Requirements

A patient can access certain features based on its user privilege. The system will secure all outlets of transaction that includes any confidential patient records. The system will automatically log out users after a certain period of inactivity.

Security Requirements

The system must maintain separate levels of security for users and the system administrator as well as for doctors and therapists. All users are required to have an account to be able to access DrDentAssist website. Users can access certain functionalities depending on their role.

Software Quality Attributes

Security

- DrDentAssist will support different privileges for users such as patient, receptionist, doctor and therapist. The user upon logged in with the given role should only be allowed to access functionalities based on its privilege.
- In HTTPS, it enables web application to securely access confidential information like patient records.
- The patient's personal information is protected.

Reliability

- DrDentAssist service descriptions and doctor description are clear and understandable.

Scalability

- DrDentAssist must be scalable to many users for all the patients to have better user experience.

Availability

- DrDentAssist is available 24/7

Business Rules

- Each patient can select one or more service/s. Each service can be provided to one or more patient.
- Each patient can request for one appointment. Each appointment can be associated with one patient only.
- Each patient can make one payment only. Each payment is associated to one patient.
- Each patient has one patient record. Each patient record is associated to one patient.
- Each patient record can consist of dental or derma record. Each dental or derma record is associated to one patient record.
- Each employee can provide one or more service/s. Each service is provided by one or more employee.
- All employee is consisting of doctor, reception admin and therapists.
- All doctors are consisting of dentist or dermatologists.
- Each reception admin manages patients' schedule.

Appendix B: Analysis Models

Figure 1. Data Flow Diagram Level 0

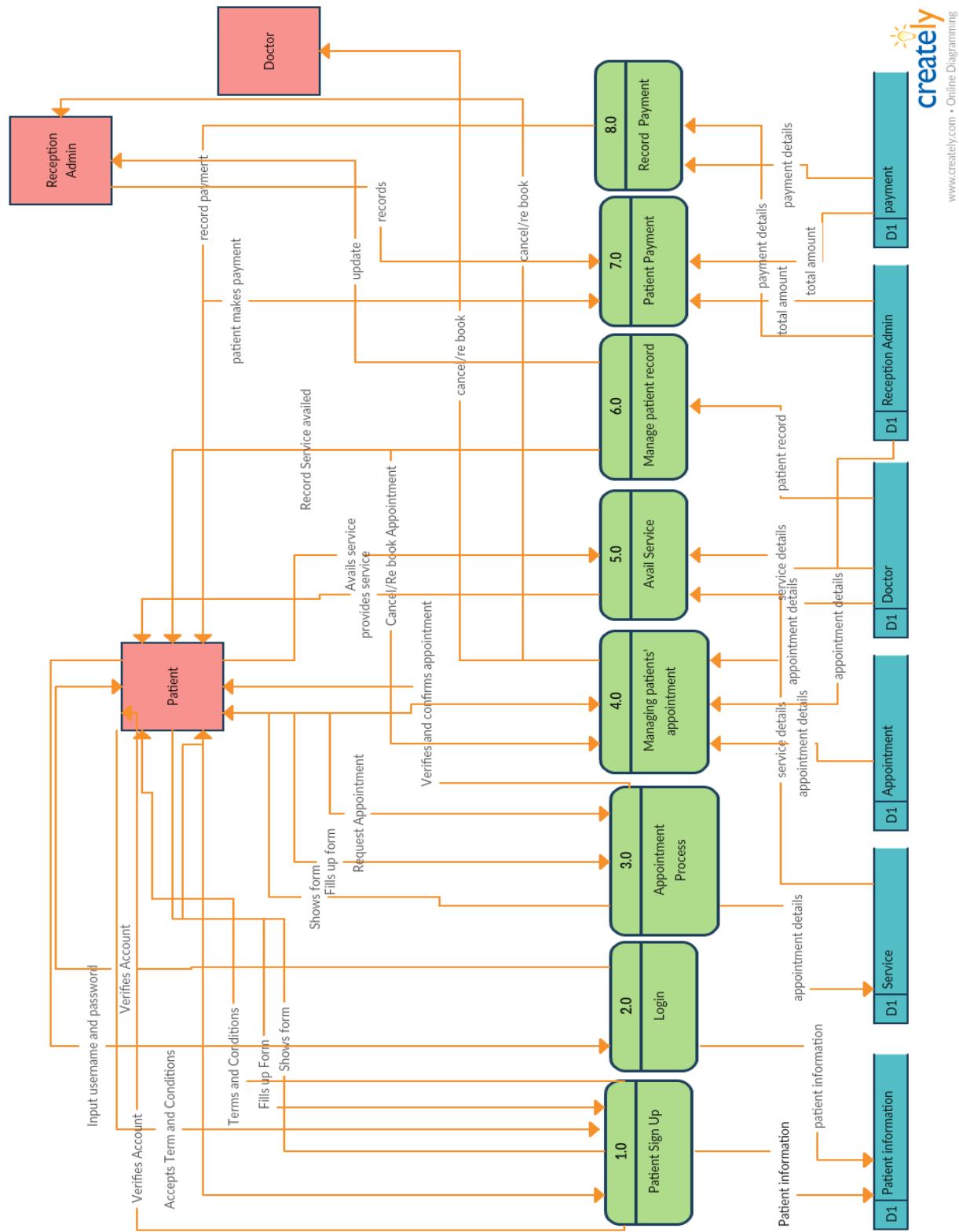


Figure 2. Data Flow Diagram Level 1

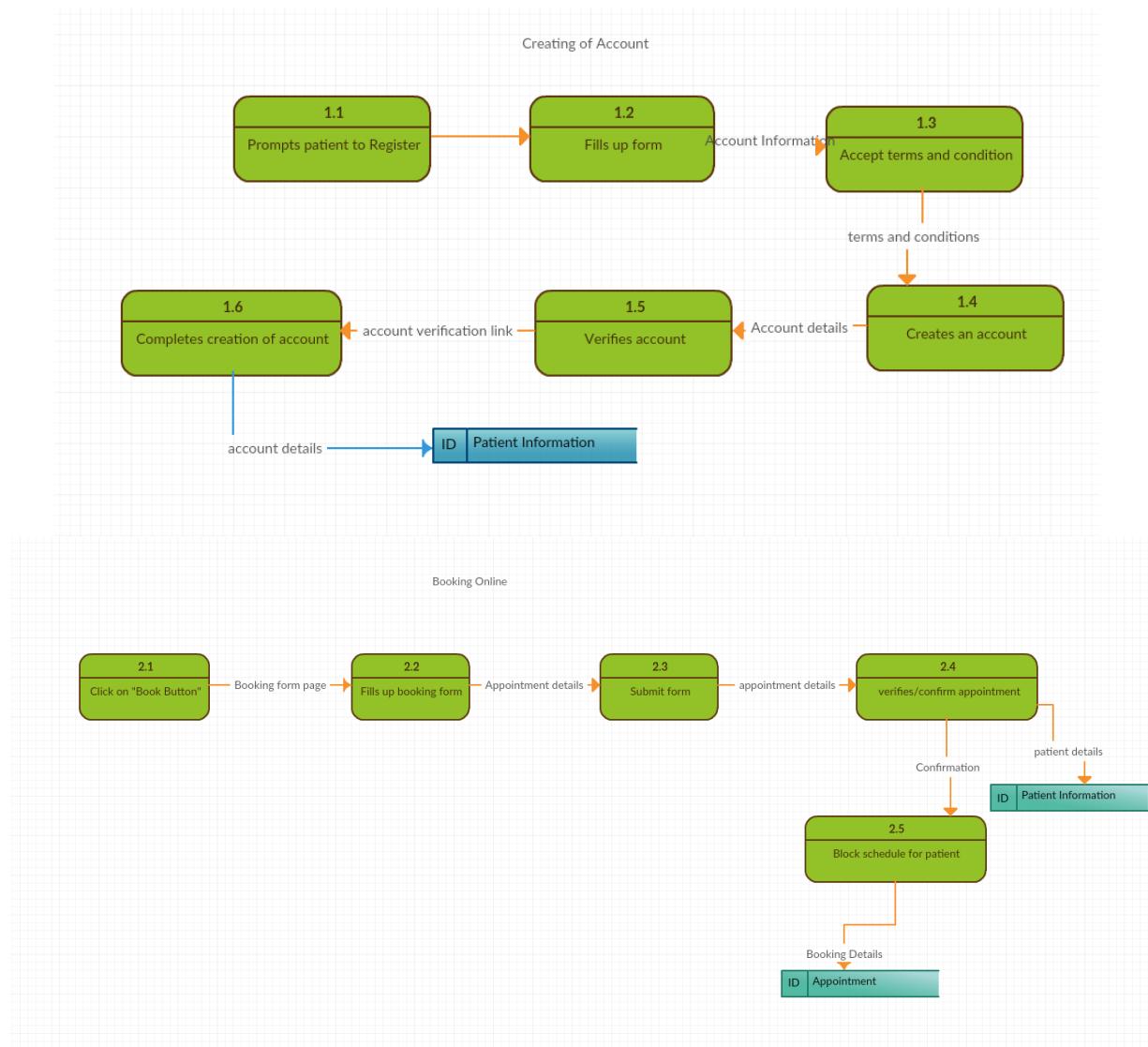


Figure 3. Class Diagram:

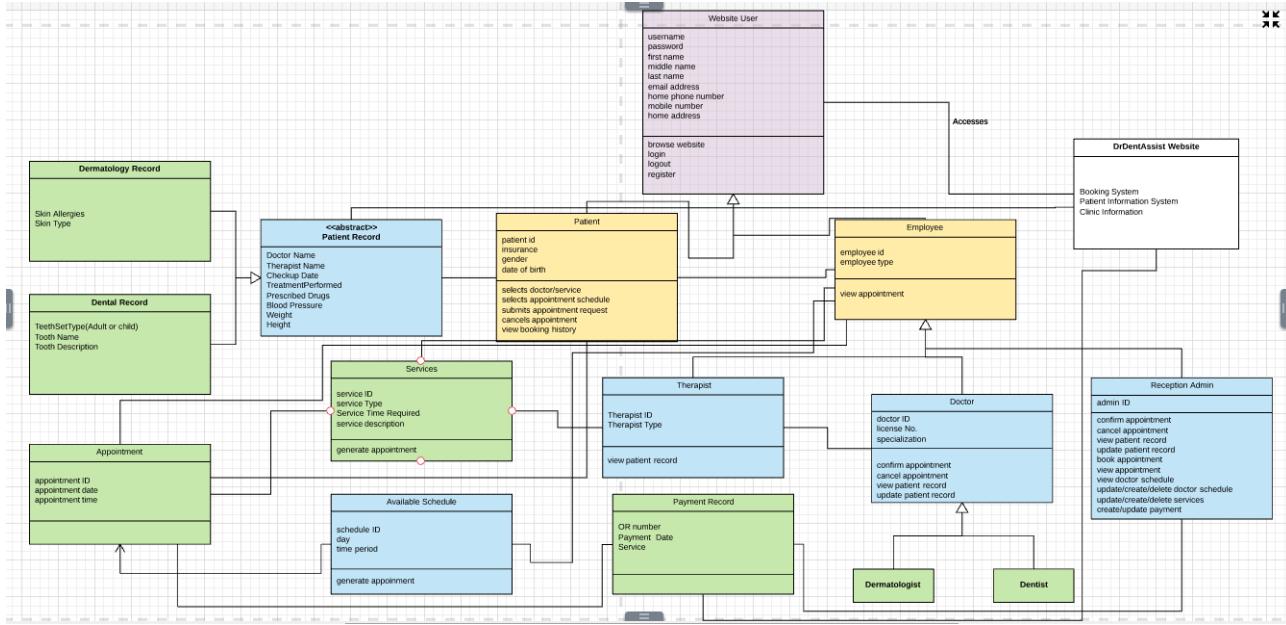


Figure 4. State Transition Diagram:

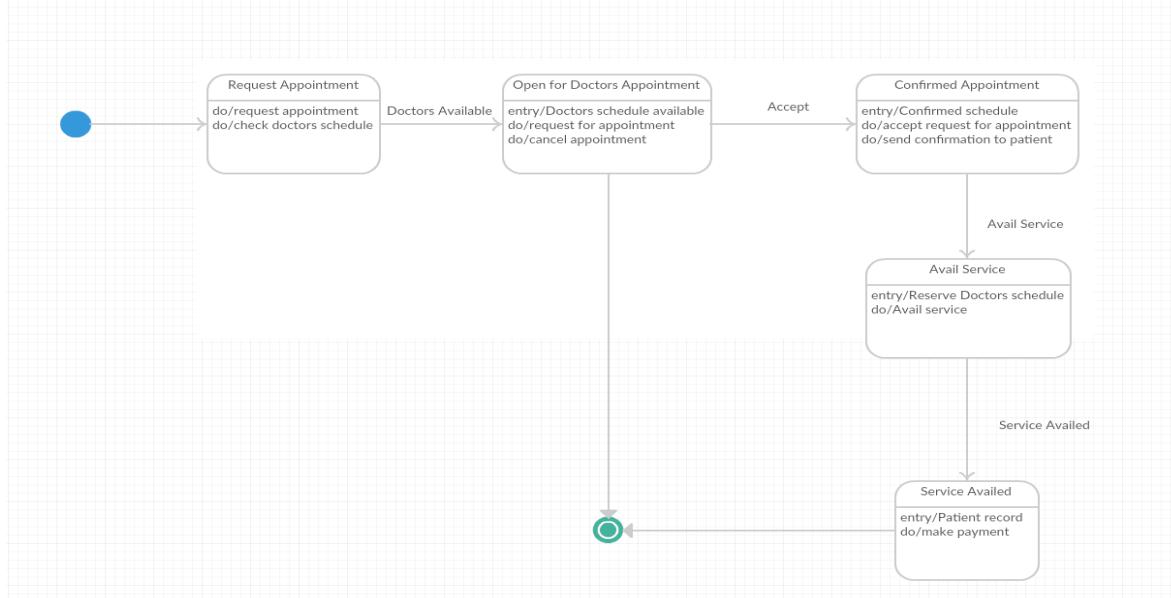
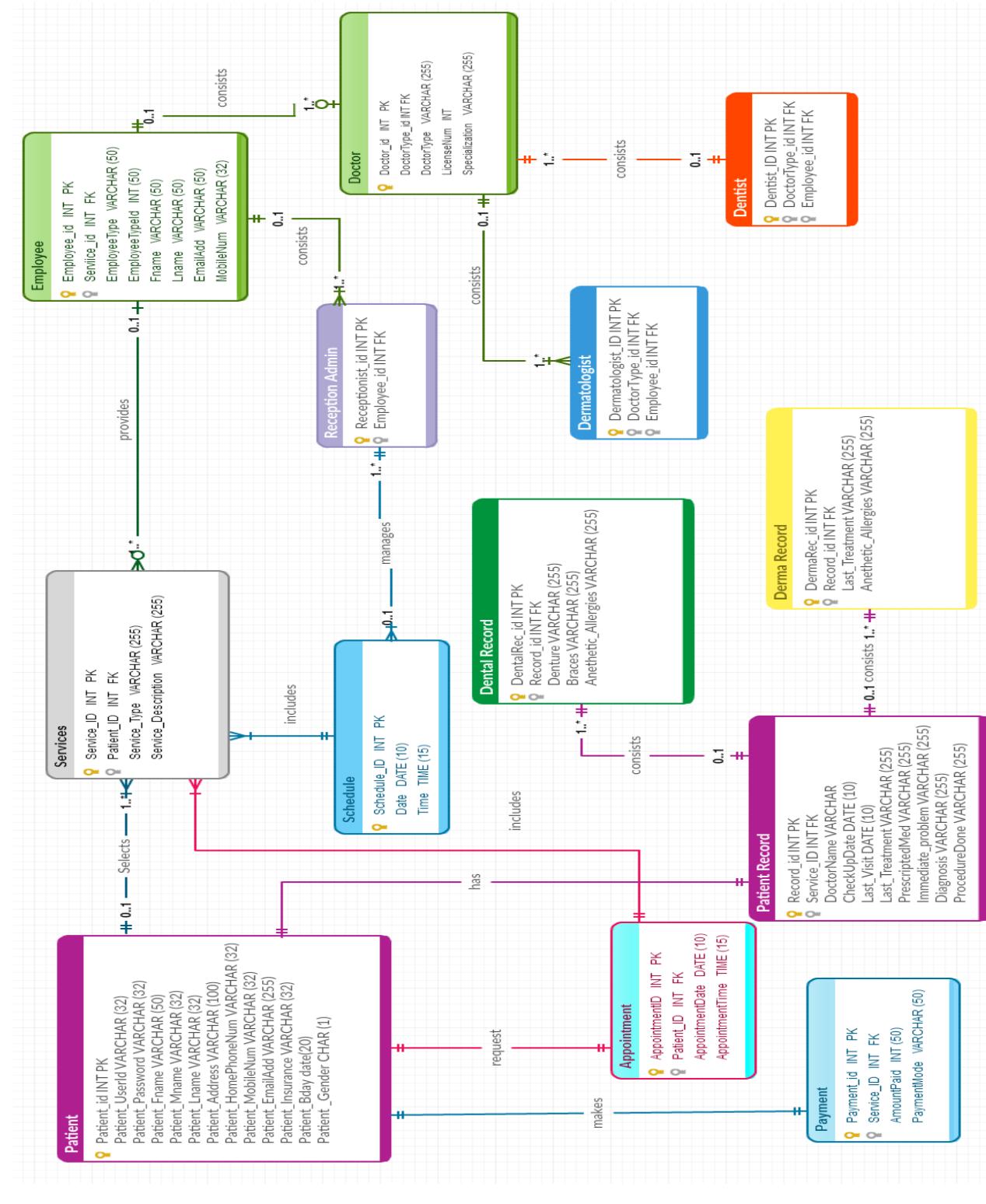


Figure 5. Entity Relationship Diagram (ERD)



Quality Plan

For

DRDENTASSIST

Version 1.0 approved

Prepared by:
Maria Kristina Punla
Chloe Tañada
Reimarie Princess Quirante

Asia Pacific College

June 14, 2017

Introduction

This document, together with other referenced documents, defines the responsibilities and procedures to be adopted to ensure that the data and information produced as part of Project 001 are reliable, fit for purpose and consistent with documented objectives and deliverables. It summarizes the system of internal management that governs the decisions and instructions concerning project quality assurance.

Project Contractual Information

Project:	Booking Online System and Patients Record System
Project Number:	001
Programme Co-ordinator:	Leticia Aspiras
	Nancy Calimag
Principal Investigators(s):	Coney Dela Pena
	Richelle Ravago
	Welthea Ea
	Marjorie Celis
	Lala Marquez
	Mary Jane Santos
	Charizza Jinayon

Scope of Work and Quality Objectives

Scope of work:

The scope of DrDentAssist

- Patient can view the website
- Patient can request appointment online.
- Patient can cancel appointment.
- Admins can manage patient appointments.
- Admin can manage Doctors Schedule.
- Admin can manage patients' record.
- Admin can manage payment.

DrDentAssist will focus on the dental and derma services of Happy Clinique. The project team will also create a patient record system for the Clinique.

Quality Objectives:

- To provide Happy Clinique a website with an online booking function.
- For Happy Clinique to have a better monitoring of their accepted appointments.
- Provide patients a quick and easy way of requesting for an appointment.
- To completely transitions patients records from paper to paperless.
- To add a feature in the website to record patient's payment.

QA Requirement:

QA Requirement		
Factor	Description	Rank
Accessibility	Admins will be given different permissions. The Admins (Doctors and Reception Admin) can manage patients appointment. While patients would only have permission to manage their own appointment.	
Correctness	The correctness of the system will be determined if the patient was able to submit an appointment request online .	
Efficiency	The system aims to increase patients and increase productivity of employees.	
Expandability	Adding functionality to the system will always be taken into consideration. The system uses Laravel framework which do have a lot of resource or open source.	
Integrity	Doctors are the only one who can make changes on patients record in regards to updating their medical records. Admins like Reception Admin will have access to managing patients appointment.	
Interoperability	The system will engage with different mailing platform. The system will be sending confirmation emails to the patients regarding their registration to the site and appointment request.	
Maintainability	Happy Clinique will be up and running as long as the business is ongoing.	
Portability	The system will soon have a mobile app.	
Presentability	The design of the website is minimalistic. It will contain information about the clinique. It will also show clinique's services offered and the availability of the Doctors.	
Reliability	The system will accept bookings as long as the server is running.	
Reusability	Login and Booking modules can be used in other applications.	
Usability	The system will be designed in a friendly user manner.	

Project Organization

Project Manager(s): Reimarie Princess Quirante

Task Manager(s): Maria Kristina Punla

Quality Assurance: Chloe Tanada

User Community: Lala Marquez

Mary Jane Santos

Charizza Jinayon

Technical Reviews: Leticia Aspiras

Project Duration and Scheduling

Start Date:

June 7,2017

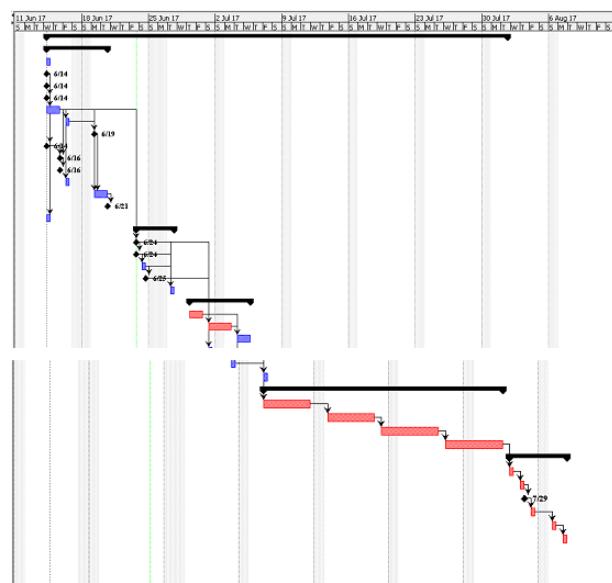
Completion Date:

August 23, 2017

Scheduling of Activities:

Gantt Chart:

		Name	Duration	Start	Finish	Predecessors
1	El Work Breakdown Schedule		40 days	6/14/17 8:00 AM	6/24/17 5:00 PM	
2	El Planning		5 days	6/14/17 8:00 AM	6/20/17 5:00 PM	
3	Initial meeting		1 day	6/14/17 8:00 AM	6/14/17 5:00 PM	
4	Create Project Plan		1 day	6/14/17 8:00 AM	6/14/17 5:00 PM	
5	Brainstorming for prototyposystem to develop		0 days	6/14/17 8:00 AM	6/14/17 8:00 AM	
6	Realistic timeline project to propose		0 days	6/14/17 8:00 AM	6/14/17 8:00 AM	5
7	Choose a project site		2 days	6/14/17 8:00 AM	6/16/17 5:00 PM	6
8	Create a proposal document		1 day	6/16/17 8:00 AM	6/16/17 5:00 PM	7
9	Submit Proposal Document		0 days	6/19/17 8:00 AM	6/19/17 8:00 AM	8
10	Delegation of Tasks/roles		0 days	6/19/17 8:00 AM	6/19/17 8:00 AM	4
11	Seek for an adviser		0 days	6/20/17 5:00 PM	6/20/17 5:00 PM	10;7
12	Schedule appointments for adviser consultation		0 days	6/20/17 5:00 PM	6/20/17 5:00 PM	11
13	Set goals and objectives		1 day	6/21/17 8:00 AM	6/21/17 5:00 PM	7
14	Create Vision and Scope of the Project		2 days	6/21/17 8:00 AM	6/23/17 5:00 PM	7;9
15	Perform a phase review		0 days	6/23/17 5:00 PM	6/23/17 5:00 PM	14
16	Create & Communications Plan		1 day	6/24/17 8:00 AM	6/24/17 5:00 PM	4
17	El Analysis		2 days	6/25/17 8:00 AM	6/27/17 5:00 PM	
18	Identify the end user requirements.		0 days	6/25/17 8:00 AM	6/25/17 8:00 AM	7
19	Perform a gap analysis.		0 days	6/25/17 8:00 AM	6/25/17 8:00 AM	10
20	Identify quality requirements		1 day	6/25/17 8:00 AM	6/25/17 5:00 PM	19
21	Conduct requirements analysis.		0 days	6/25/17 8:00 AM	6/25/17 8:00 AM	20
22	Create Process Model		1 day	6/27/17 8:00 AM	6/27/17 5:00 PM	18;21;24
23	El Design		0 days	6/29/17 8:00 AM	6/29/17 8:00 AM	
24	Create Architecture document of the project		2 days	6/29/17 8:00 AM	6/30/17 5:00 PM	
25	Create Implementation Plan		2 days	7/1/17 8:00 AM	7/1/17 5:00 PM	24
26	Create Test Plan		2 days	7/1/17 8:00 AM	7/1/17 5:00 PM	25
27	Define the general features of the system		1 day	7/1/17 8:00 AM	7/1/17 5:00 PM	18;21;24
28	Create a Contingency/Disaster Recovery Plan		1 day	7/1/17 8:00 AM	7/1/17 5:00 PM	24;25
29	El Development		20 days	7/4/17 8:00 AM	7/26/17 5:00 PM	
30	Developing the solution components		5 days	7/4/17 8:00 AM	7/9/17 5:00 PM	24;25;27
31	Developing the testing code and tests		5 days	7/4/17 8:00 AM	7/9/17 5:00 PM	30
32	Develop specific standards and methods of the system		5 days	7/4/17 8:00 AM	7/9/17 5:00 PM	31
33	Develop tools, actions and responsibility		5 days	7/4/17 8:00 AM	7/9/17 5:00 PM	32
34	El Testing		5 days	7/29/17 8:00 AM	8/1/17 5:00 PM	
35	Implementation of User Acceptance Test		1 day	7/29/17 8:00 AM	7/29/17 5:00 PM	33
36	Identifies test procedures creation		1 day	7/30/17 8:00 AM	7/30/17 5:00 PM	35
37	Document results of test		0 days	7/30/17 8:00 AM	7/30/17 5:00 PM	36
38	Test Procedure Definition		1 day	7/30/17 8:00 AM	7/30/17 5:00 PM	37
39	Create Test Problem results		1 day	7/31/17 8:00 AM	7/31/17 5:00 PM	38
40	Create Kindness		1 day	7/31/17 8:00 AM	7/31/17 5:00 PM	39



Activity list

Activity #	Activity Name	Activity Name Description	# of Days	Start Date	Dependency	Milestone
1	Planning	Planning on Project Development	1	06/07/17		Final decision of the project
2	Analysis	Project Requirements Analysis	1	06/07/17	SS	Final analysis
2.1	Analysis Documentation	WBS/ Gantt Chart/ Activity List	1	6/21/17	1FS + 5 day lag	
2.2	Analysis	Project Documents	13	06/14/17	5 day lag	Final documents
3	Design	System Architecture	5	06/14/17	FS	Detailed design
4	Development	System Development	20	06/14/17	lag	Software code
4.1	GUI	Develop GUI	10	06/14/17	5 day lag	
4.2	Code	Code subroutine	20	06/14/17	lag	Prototype
4.3	Functions	System Functions Development	25		5 day lag	Final working prototype

5	Online requirements	Wiki	2	06/14/17	3 day lag	Final Online Documents
5.1	Online requirements	Microsoft Planner	2	06/14/17	3 day lag	Final Online Documents
5.2	Online requirements	GitHub	0	06/14/17	1 day lag	Final Online Documents

Legend:

- FS = The specific task must finish prior to starting the identified task
- SS = Two identified tasks start at the same time, but are not linked to finish at the same time.
- FF = Two identified tasks finish at the same time, but are not linked to start at the same time.
- Blank = Task has no dependency
- Lag = Additional days can be added for reserve to ensure project stays on schedule.

Deliverables

Deliverables specified for the project include:

- (i) Quality Plan
- (ii) Project Progress Report
- (iii) Project Vision and Scope
- (iv) Software Requirements Documentation
- (v) Project Statement at Work
- (vi) Change Management Plan
- (vii) Risk Management Plan

All project deliverables (the Quality Plan itself, interim reports, progress reports, final reports, publications, maps, data, etc.) should be listed here (and numbered appropriately).

Review of Quality Plan

The quality plan will be reviewed every week and will be updated as needed.

Document and Record Control

Project documents, records and data will be controlled and stored in GitHub (www.GitHub.com), Planner and Projects Wiki (www.projects2.apc.edu.ph/wiki). All completed documents relating to the project will be book bound at the end of this course. A compact disc will contain a soft copy of all the documentation.

The Quality Plan, Change Management Plan, Vision and Scope Document, Software Requirement Specification, Statement of Work will be issued to all members of the project team.

Project Progress Reports will be issued to the following:

Prof. Manual Sebastian Sanchez

Prof. Jacob Catayoc

Documented Procedures

All documentation created for this project is recorded in GitHub (www.github.com), Planner (Onenote.com), Trello (www.trello.com) and Projects Wiki (www.projects2.apc.edu.ph/wiki). All data gathered for this project came from internet and from interviews and survey made with the client. Other documentations are also from our project advisers, project consultant and class adviser. All pertinent documentation are reviewed every week by the professors.

Change Management Plan

For

DRDENTASSIST

Version 1.0 approved

Prepared by:
Maria Kristina Punla
Chloe Tañada
Reimarie Princess Quirante

Asia Pacific College

July 11, 2017

Change Management Plan

Introduction

Change Management Plan is created for DrDentAssist System in order to define activities and roles to manage and control change during the execution and control stage of the project. The client should comply with the change management plan for all requests and changes in the system.

Change Management Approach

The Change Management approach for DrDentAssist System will make sure that plan or proposed changes are clear, studied, documented and approved to avoid problems with the implementation. The strategy is to make sure that only approved changes will be implemented.

The Change Management approach consists of three areas:

- Changes should be within scope and valuable to the project
- Implementation of the approved change must be well defined.
- Be able to implement the change.

The purpose of Change Management process is to make sure that this approach is charted for all changes. Through this methodology, the developers will avoid unplanned and unnecessary change from occurring.

Definitions of Change

There are several types of changes that can be requested and considered for the project. Depending on the size and type of the proposed changes, changes the project documentation, and these changes are then included into the project plan and ensured that all the project stakeholders are aware and notified.

Types of changes includes:

Scheduling Changes:

Change that will affect the approved project schedule.

Budget Changes:

Practically for each situation, change implies more prominent cost. It is uncommon to have change lessen cost. Change management includes sponsors of the project - those paying for it - comprehend the effect of changes on the financial plan. Where changes can be controlled, for example, budget impacts, are part of the change analysis and may result in a decision to forego or defer the changes. The project team, led by the project manager, should also be prepared to brainstorm on ways to hold to the budget despite the impact of changes.

Scope Changes:

Changes which are necessary and impact the projects scope which may be the result of unforeseen requirements which were not initially planned for. These changes may also impact budget and schedule. These changes may require revision to WBS, project scope statement, and other project documentation as necessary.

The project manager must ensure that any approved changes are communicated to the project stakeholders. Additionally, as changes are approved, the project manager must ensure that the changes are captured in the project documentation where necessary. These document updates must then be communicated to the project team and stakeholders as well.

Change Control Board

A Change Control Board (CCB) or Software Change Control Board (SCCB) is a team that makes decisions regarding whether proposed changes to a software project is to be executed. The change control board is composed of project stakeholders.

Table below consist the list of the CCB members for the Project:

Name	Position	CCB Role
Leticia Aspiras	Project Sponsor	CCB Chair
Reimarie Princess Quirante	Project Manager	CCB Member
Maria Kristina Punla	Project Team Member	CCB Member
Chloe Tanada	Project Team Member	CCB Member

Once the Project Team sends change requests to the Project Manager, the project manager will document the requests in the change log and the CCB will conduct a meeting to do a run of reviews and discussions on all the change requests. In order for change to be instigated, all members of the CCB should decide whether they approved the request or not. Any further data

and explanation regarding the change requests can be discussed in the meeting. Changes that are deemed critical should be given an importance to review the change.

Roles and Responsibilities

Roles and responsibilities for all change management.

Project Sponsor:

Role:

Overall accountability of the project.

Responsibilities:

- Ensures that project is under control.
- Monitors progress of the project.
- Gives approval to all requested change
- Approve all changes to schedule baseline
- Manages the project team
- Approves project charter and documentation
- Ensures that approved changes are implemented properly
- Approves project deliverables

Project Manager:

Role:

Overall responsibility for the analyzing, planning, design, implementation, monitoring and managing the completion of the project.

Responsibilities:

- designing and applying appropriate project management standards
- managing the production of the required deliverables
- planning and monitoring the project
- manage project risks
- monitoring overall progress of the project
- manage deliverables
- Form schedule on the changes
- Receives and documents change requests from project stakeholders
- Clarifies unclear change requests from the requestors
- Participate in Change Control Board.
- Documents all processes.

- Approves job orders and change orders

Project Team/Stakeholders:

Role:

To perform tasks that have been assigned to keep the project manager updated on all concerns.

Responsibilities:

- Contributes and participates to overall project objectives.
- Completing individual tasks and deliverables
- Providing expertise
- Working with users to establish and see business needs

Change Control Process

The following are the process to be used when implementing changes.

1. Fill up change request form and submit.
2. Change Control Board (CCB) reviews submitted changes or execution of changes to the project.
3. Submitted change request will be scheduled for a Technical Approval. In order to review the request by suitable people to regulate the technical impact the change might do in the user environment.
4. Seek Technical Approval.
5. Implement Change.

Risk Management Plan

For

DRDENTASSIST

Version 1.0 approved

Prepared by:
Maria Kristina Punla
Chloe Tañada
Reimarie Princess Quirante

Asia Pacific College

August 14, 2017

Risk Management Plan

Project Title: DrDentAssist

Project Working Title: DrDentAssist

Proponent Secretary: _____

Proponent Agency: _____

Prepared by: Maria Kristina G. Punla

Date/Control Number: August 14, 2017

Risk Management Strategy

The Risk Management Strategy is to classify and evaluate the effects of uncertainties on the DrDentAssist Program, so that action can be taken to minimize the consequences of any undesired incident that may threaten the success of the Program. The purpose of this plan is to create an outline of working practices, which will permit all risks linked with the DrDentAssist system to be identified, monitored and controlled during the lifecycle of the Program.

1. Risk Identification Process

Risk Identification Process will be conducted on the initial project risk assessment meeting. The project manager together with the project team will brainstorm on all possible risks.

2. Risk Assessment and Impact Assessment Criteria

Risk	
Risk Level 1 (Low)	The risk will not affect the availability of the business.
Risk Level 2 (Low)	Similar to Level 1, but may cause minor disruption to services or site, but localized and agreed with all parties and can be performed in normal working hours.
Risk Level 3 (Medium)	This risk will normally be scheduled to take place outside of core business hours as it may impact normal business running.
Risk Level 4 (Med\High)	This risk will have minor impact to the business and needs careful planning.

Risk Level 5 (High)	This will have impact to the business and needs careful planning to ensure it completes successfully.
---------------------	---

Impact	
4. Minor/Localized	Affects only a single system. Will not require extensive testing before completion. If the system fails it will not adversely affect our ability to carry out normal business operations.
3. Moderate/Limited	Could potentially impact more than One local system, but due to nature/use of systems not business critical. Will not require moderate testing before completion. If the system fails it will not adversely affect our ability to carry out normal business operations.
2. Significant/Large	Typically affects more than one system. Could affect business operations. Will need downtime. The risk and impact need to be assessed and all affected parties consulted and agree to the action.
1. Extensive/Widespread	Will affect multiple systems and have business impact. Requires extensive planning, risk and impact analysis, consultation / agreement and discussion before being scheduled.

3. Risk Mitigation Options

The project manager has managed the project team in creating resolutions to each known risk. As more risks are found, the project team will develop avoidance and mitigation strategies. These risks will be documented to guarantee they are checked at the proper times and are replied to consequently.

The risks for this project will be managed and organized within the limitations of time, scope, and cost. All identified risks will be assessed. The project manager, together with the project team, will find the best way to resolve each risk to ensure compliance with these limitations.

4. Risk Plan Maintenance

The project manager together with the team will test, evaluate and update the risk management plan regularly. Risks can affect the business. A Regular review on the risk

management plan is important for identifying new risks and monitoring the efficiency of the risk action plans.

5. Risk Management Responsibilities

Individual	Responsibility
Program Director	The program Director has overall responsibility for Risk Management on DrDentAssist.
Assurance Manager	The Assurance Manager coordinates all the Assurance functions on the DrDentAssist Program, which includes the Risk Management Process.
Risk Manager	<p>The Risk Manager is responsible to the Assurance Manager and Program Director for the effective management of the Risk Management Process, which includes the following:</p> <ul style="list-style-type: none">➤ Facilitate the identification of all risks that may impact the success of the DrDentAssist Program.➤ Make certain that all risks identified are recorded into the DrDentAssist Risk Register.➤ Ensure that a Risk Owner is assigned to each risk.➤ Ensure that there is a control strategy for each risk, which is being implemented with clearly identified actions and resolutions.

	<ul style="list-style-type: none"> ➤ Maintain the Risk Register and ensure that it is correct and up to date. ➤ Organize and manage regular meetings of the Risk Management Committee.
Risk Owner	The Risk Owner is responsible for confirming that risk control actions are implemented.
	Assigns responsibility for the control actions and resolutions.
	Reports completion of a risk action to the Risk Manager.
	The Risk Owner can change the control actions as and when required in reply to changing conditions.

Risk Analysis Summary

<i>Risk Number</i>	<i>Risk Name</i>	<i>Probability of Occurrence</i>	<i>Impact level</i>	<i>Impact Description</i>
1	Executives fail to support project	30%	3	The project team may lack the authority to achieve project objectives. In such cases, executive management support is fundamental to project success. When this doesn't materialize the project fails.
2	Executives become disengaged with project	30%	3	Executive management disregards project communications and meetings.
3	Conflict between executive stakeholders disrupts project	20%	3	Members of executive management are combative to the project or there is a disagreement over project issues at the executive level.
4	Estimates are inaccurate	10%	2	Inaccurate estimates is a common project risk.
5	Cost forecasts are inaccurate	10%	2	Inaccurate cost estimates and forecasts.
6	Change management overload	20%	3	Change requests may be the source of stakeholder conflict.
7	Stakeholder conflict over proposed changes	10%	3	Identify any lack of critical tools as a risk.
8	Lack of a change management system	5%	3	Identify any lack of critical tools as a risk.

9	Lack of a change management process	5%	3	Change management at the organizational or departmental level is critical to project success. Otherwise, the project will have limited visibility into changes that impact the project.
10	Lack of a change control board	5%	3	When non-essential changes are prioritized impacting critical schedules.
11	Change request conflicts with requirements	5%	3	Change requests that make no sense in the context of the requirements.
12	Stakeholders become disengaged	10%	2	When stakeholders ignore project communications.
13	Stakeholders have inaccurate expectations	20%	3	Stakeholders develop inaccurate expectations (believe that the project will achieve something not in the requirements, plan, etc.).
14	Stakeholder turnover	20%	3	Stakeholder turnover can lead to project disruptions.
15	Stakeholders fail to support project	20%	3	When stakeholders have a negative attitude towards the project and wish to see it fail.
16	Stakeholder conflict	20%	3	Disagreement between stakeholders over project issues.
17	Project team misunderstand requirements	30%	3	When requirements are misinterpreted by the project team a gap develops between expectations, requirements and work packages.

18	Impacted individuals aren't kept informed	30%	3	A stakeholder is missing in your communication plan. Anyone who isn't informed but is impacted has an excellent reason to throw up project roadblocks. For example, if you build a system but fail to consult the operations group that will be responsible for support.
19	Resource shortfalls	30%	3	Inability to secure sufficient resources for the project.
20	Learning curves lead to delays and cost overrun	30%	3	When your project team need to acquire new skills for the project there's a risk that productivity will be low.
21	Training isn't available	30%	3	Quality training for certain skills can be difficult to secure.
22	Training is inadequate	30%	3	Training is often a poor substitute for professional experience. Projects shouldn't assume that resources will be fully productive in a new skill.
23	Resources are inexperienced	20%	3	Resources who are just out of school or who are new to your industry or profession tend to make more mistakes and be less productive.
24	Resource performance issues	20%	3	Resources who perform below expectations.
25	Team members with negative attitudes towards the project	10%	3	Resources who are negative towards the project may actively or passively sabotage project efforts.

26	Resource turnover	20%	3	Your team lacks motivation. This is a particularly common risk for long running projects.
27	Design is infeasible	20%	3	The design isn't possible, is excessively costly or doesn't support the requirements.
28	Design lacks flexibility	20%	3	A poor design makes change requests difficult and costly.
29	Design is not fit for purpose	20%	3	The design is low quality.
30	Design fails peer review	20%	3	It's a good idea to have peers or architectural experts review your designs.
31	Information security incidents	30%	3	The risk of a security incident during the project (e.g. information is leaked).
32	System outages	30%	3	Critical systems such as your test environments go down.
33	Decision delays impact project	20%	3	Establish guidelines for decision turnaround time. Identify the risk that guidelines will be exceeded.
34	Project team lack authority to complete work	20%	3	If you lack specific authorities required to deliver the project list this as a risk.
35	Authority is unclear	20%	3	It's unclear who has the authority to accomplish a project objective.
36	Delays to financial approvals impact the project	20%	3	The risk of delays to financial approvals and processes to release funds.
37	Delays to stakeholder approvals impact the project	20%	3	The risk that approval deadlines will be exceeded.

38	A merger or acquisition disrupts the project	20%	3	Mergers & acquisitions may represent significant organizational changes.
39	An organizational restructuring throws the project into chaos	20%	3	If your project has a large footprint it may be extremely sensitive to organizational changes.
40	Users reject the prototype	20%	3	One of the key methods of improving user acceptance is to get regular prototypes in front of users. There's always a risk that these prototypes will be rejected (require significant rework).
41	User interface doesn't allow users to complete tasks	20%	3	The risk that the user interface doesn't allow users to complete end-to-end tasks.
42	User interface is low quality	20%	3	The user interface is buggy, slow or difficult to use.
43	User interface isn't accessible	20%	3	In many jurisdictions, user interfaces must be accessible
44	Project reduces business productivity	20%	3	Users identify your product(s) as reducing their productivity.
45	Users reject the product	20%	3	The general risk that users will reject your product.

Risk Response Summary

<i>Risk Priority</i>	<i>Risk Number</i>	<i>Risk Name</i>	<i>Responsible Person</i>	<i>Mitigation Action(s)</i>
1	1	Executives fail to support project	Risk Manager	A regular chair meeting will be held during the duration of the project.
1	2	Executives become disengaged with project	Risk Manager	A regular chair meeting will be held during the duration of the project.
2	3	Conflict between executive stakeholders disrupts project	Risk Manager	A regular chair meeting will be held during the duration of the project.
2	4	Estimates are inaccurate	Risk Manager	A regular chair meeting will be held during the duration of the project.
2	5	Cost forecasts are inaccurate	Risk Manager	A regular chair meeting will be held during the duration of the project.
1	6	Change management overload	Risk Manager	A change management plan will be created.
2	7	Stakeholder conflict over proposed changes	Risk Manager	A regular chair meeting will be held during the duration of the project.
2	8	Lack of a change management system	Risk Manager	A change management plan will be created.

2	9	Lack of a change management process	Risk Manager	A change management plan will be created.
2	10	Lack of a change control board	Risk Manager	A change management plan will be created.
2	11	Change request conflicts with requirements	Risk Manager	A change management plan will be created.
1	12	Stakeholders become disengaged	Risk Manager	A regular chair meeting will be held during the duration of the project.
1	13	Stakeholders have inaccurate expectations	Risk Manager	A regular chair meeting will be held during the duration of the project.
1	14	Stakeholder turnover	Risk Manager	A regular chair meeting will be held during the duration of the project.
1	15	Stakeholders fail to support project	Risk Manager	A regular chair meeting will be held during the duration of the project.
1	16	Stakeholder conflict	Risk Manager	A regular chair meeting will be held during the duration of the project.
3	17	Project team misunderstand requirements	Risk Manager	A regular chair meeting will be held during the duration of the project.

2	18	Impacted individuals aren't kept informed	Risk Manager	A regular chair meeting will be held during the duration of the project.
3	19	Resource shortfalls	Risk Manager	A forecast of resource needed will be done.
3	20	Learning curves lead to delays and cost overrun	Risk Manager	A timeline will be created for learning.
3	21	Training isn't available	Risk Officer	A scheduled training will be done.
3	22	Training is inadequate	Risk Officer	A scheduled training will be done.
3	23	Resources are inexperienced	Risk Officer	A scheduled training will be done.
3	24	Resource performance issues	Risk Officer	An evaluation of the performance of resource will be conducted.
3	25	Team members with negative attitudes towards the project	Risk Officer	An evaluation of the performance of resource will be conducted.
3	26	Resource turnover	Risk Manager	A scheduled training will be done.
4	27	Design is infeasible	Risk Officer	A regular chair meeting will be held during the duration of the project.
4	28	Design lacks flexibility	Risk Officer	A regular chair meeting will be held during the duration of the project.
4	29	Design is not fit for purpose	Risk Officer	A regular chair meeting will be held

				during the duration of the project.
4	30	Design fails peer review	Risk Officer	A regular chair meeting will be held during the duration of the project.
4	31	Information security incidents	Risk Officer	The system will be design will all the security needed to protect the system.
4	32	System outages	Risk Manager	A plan will be created to handle system outages
3	33	Decision delays impact project	Risk Manager	A regular chair meeting will be held during the duration of the project.
3	34	Project team lack authority to complete work	Risk Manager	A regular chair meeting will be held during the duration of the project.
3	35	Authority is unclear	Risk Manager	A regular chair meeting will be held during the duration of the project.
2	36	Delays to financial approvals impact the project	Risk Manager	A regular chair meeting will be held during the duration of the project.
2	37	Delays to stakeholder approvals impact the project	Risk Manager	A regular chair meeting will be held during the duration of the project.

2	38	A merger or acquisition disrupts the project	Risk Manager	A regular chair meeting will be held during the duration of the project.
2	39	An organizational restructuring throws the project into chaos	Risk Manager	A regular chair meeting will be held during the duration of the project.
2	40	Users reject the prototype	Risk Manager	A scheduled training will be done.
2	41	User interface doesn't allow users to complete tasks	Risk Manager	A scheduled training will be done.
2	42	User interface is low quality	Risk Manager	A scheduled training will be done.
2	43	User interface isn't accessible	Risk Manager	A scheduled training will be done.
2	44	Project reduces business productivity	Risk Manager	A regular chair meeting will be held during the duration of the project.
2	45	Users reject the product	Risk Manager	A regular chair meeting will be held during the duration of the project.

Risk Mitigation Cost

Risk Number	Risk Name	Internal Staff / Labor	Services	Development Tools	Software	Hardware	Materials and Supplies	Facilities	Telecommunications	Training	Total Cost
1	Executives fail to support project	0	0	0	0	0	0	0	0	0	0
2	Executives become disengaged with project	0	0	0	0	0	0	0	0	0	0
3	Conflict between executive stakeholders disrupts project	0	0	0	0	0	0	0	0	0	0
4	Estimates are inaccurate	0	0	0	0	0	0	0	0	0	0
5	Cost forecasts are inaccurate	0	0	0	0	0	0	0	0	0	0
6	Change management overload	0	0	0	0	0	0	0	0	0	0

7	Stakeholder conflict over proposed changes	0	0	0	0	0	0	0	0	0	0
8	Lack of a change management system	0	0	0	0	0	0	0	0	0	0
9	Lack of a change management process	0	0	0	0	0	0	0	0	0	0
10	Lack of a change control board	0	0	0	0	0	0	0	0	0	0
11	Change request conflicts with requirements	0	0	0	0	0	0	0	0	0	0
12	Stakeholders become disengaged	0	0	0	0	0	0	0	0	0	0
13	Stakeholders have inaccurate expectations	0	0	0	0	0	0	0	0	0	0
14	Stakeholder turnover	0	0	0	0	0	0	0	0	0	0

15	Stakeholders fail to support project	0	0	0	0	0	0	0	0	0	0
16	Stakeholder conflict	0	0	0	0	0	0	0	0	0	0
17	Project team misunderstands and requirements	0	0	0	0	0	0	0	0	0	0
18	Impacted individuals aren't kept informed	0	0	0	0	0	0	0	0	0	0
19	Resource shortfalls	0	0	0	0	0	0	0	0	0	0
20	Learning curves lead to delays and cost overrun	0	0	0	0	0	0	0	0	0	0
21	Training isn't available	0	0	0	0	0	0	0	0	0	0
22	Training is inadequate	0	0	0	0	0	0	0	0	0	0
23	Resources are inexperienced	0	0	0	0	0	0	0	0	0	0

24	Resource performance issues	0	0	0	0	0	0	0	0	0	0
25	Team members with negative attitudes towards the project	0	0	0	0	0	0	0	0	0	0
26	Resource turnover	0	0	0	0	0	0	0	0	0	0
27	Design is infeasible	0	0	0	0	0	0	0	0	0	0
28	Design lacks flexibility	0	0	0	0	0	0	0	0	0	0
29	Design is not fit for purpose	0	0	0	0	0	0	0	0	0	0
30	Design fails peer review	0	0	0	0	0	0	0	0	0	0
31	Information security incidents	0	0	0	0	0	0	0	0	0	0
32	System outages	0	0	0	0	0	0	0	0	0	0
33	Decision delays impact project	0	0	0	0	0	0	0	0	0	0
34	Project team lack authority	0	0	0	0	0	0	0	0	0	0

	to complete work									
35	Authority is unclear	0	0	0	0	0	0	0	0	0
36	Delays to financial approvals impact the project	0	0	0	0	0	0	0	0	0
37	Delays to stakeholder approvals impact the project	0	0	0	0	0	0	0	0	0
38	A merger or acquisition disrupts the project	0	0	0	0	0	0	0	0	0
39	An organizational restructuring throws the project into chaos	0	0	0	0	0	0	0	0	0
40	Users reject the prototype	0	0	0	0	0	0	0	0	0
41	User interface doesn't allow users to	0	0	0	0	0	0	0	0	0

	complete tasks										
42	User interface is low quality	0	0	0	0	0	0	0	0	0	0
43	User interface isn't accessible	0	0	0	0	0	0	0	0	0	0
44	Project reduces business productivity	0	0	0	0	0	0	0	0	0	0
45	Users reject the product	0	0	0	0	0	0	0	0	0	0

Risk Contingency Report

Risk Number	Risk Name	Probability of Occurrence	Mitigation Cost	Planned
				Contingency Cost
1	Executives fail to support project	30%	0	0
2	Executives become disengaged with project	30%	0	0
3	Conflict between executive stakeholders disrupts project	20%	0	0
4	Estimates are inaccurate	10%	0	0
5	Cost forecasts are inaccurate	10%	0	0
6	Change management overload	20%	0	0
7	Stakeholder conflict over proposed changes	10%	0	0
8	Lack of a change management system	5%	0	0
9	Lack of a change management process	5%	0	0
10	Lack of a change control board	5%	0	0
11	Change request conflicts with requirements	5%	0	0
12	Stakeholders become disengaged	10%	0	0
13	Stakeholders have inaccurate expectations	20%	0	0
14	Stakeholder turnover	20%	0	0
15	Stakeholders fail to support project	20%	0	0
16	Stakeholder conflict	20%	0	0
17	Project team misunderstand requirements	30%	0	0
18	Impacted individuals aren't kept informed	30%	0	0
19	Resource shortfalls	30%	0	0

20	Learning curves lead to delays and cost overrun	30%	0	0
21	Training isn't available	30%	0	0
22	Training is inadequate	30%	0	0
23	Resources are inexperienced	20%	0	0
24	Resource performance issues	20%	0	0
25	Team members with negative attitudes towards the project	10%	0	0
26	Resource turnover	20%	0	0
27	Design is infeasible	20%	0	0
28	Design lacks flexibility	20%	0	0
29	Design is not fit for purpose	20%	0	0
30	Design fails peer review	20%	0	0
31	Information security incidents	30%	0	0
32	System outages	30%	0	0
33	Decision delays impact project	20%	0	0
34	Project team lack authority to complete work	20%	0	0
35	Authority is unclear	20%	0	0
36	Delays to financial approvals impact the project	20%	0	0
37	Delays to stakeholder approvals impact the project	20%	0	0
38	A merger or acquisition disrupts the project	20%	0	0
39	An organizational restructuring throws the project into chaos	20%	0	0
40	Users reject the prototype	20%	0	0
41	User interface doesn't allow users to complete tasks	20%	0	0
42	User interface is low quality	20%	0	0
43	User interface isn't accessible	20%	0	0

44	Project reduces business productivity	20%	0	0
45	Users reject the product	20%	0	0

Diagrams and Tables

For

DrDentAssist

Version 1.0 approved

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July 11, 2017

Figure 1: Work Breakdown Structure

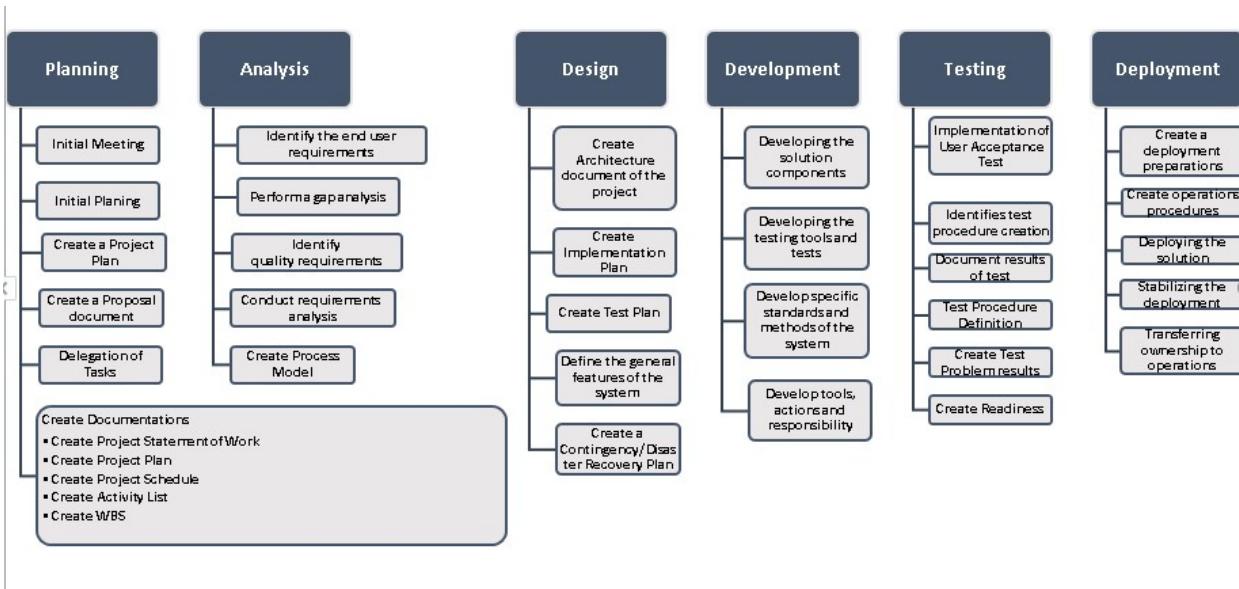


Figure 2: Gantt chart

		Name	Duration	Start	Finish	Predecessors
1		Work Breakdown Schedule				
2		Planning				
3		Initial meeting	1 day?	6/14/17 8:00 AM	6/14/17 5:00 PM	
4		Create Project Team	0 days	6/14/17 8:00 AM	6/14/17 8:00 AM	
5		Brainstorm on what project/system to develop	0 days	6/14/17 8:00 AM	6/14/17 8:00 AM	
6		Finalize which project/this proposal	0 days	6/14/17 8:00 AM	6/14/17 8:00 AM	5
7		Create a project plan	2 days	6/14/17 8:00 AM	6/15/17 5:00 PM	6
8		Create a proposal document	1 day	6/16/17 8:00 AM	6/16/17 5:00 PM	7
9		Submit Proposal Document	0 days	6/19/17 8:00 AM	6/19/17 8:00 AM	8
10		Delegation of Tasks/Roles	0 days	6/14/17 8:00 AM	6/14/17 8:00 AM	4
11		Seek for an adviser	0 days	6/15/17 8:00 PM	6/15/17 5:00 PM	10;7
12		Schedule appointments for adviser consultation	0 days	6/15/17 8:00 PM	6/15/17 5:00 PM	11
13		Set goals and objectives	1 day	6/16/17 8:00 AM	6/16/17 5:00 PM	7
14		Create Vision and Scope of the Project	2 days	6/19/17 8:00 AM	6/20/17 5:00 PM	7;9
15		Perform a phase review	0 days	6/20/17 8:00 PM	6/20/17 5:00 PM	14
16		Create a Communications Plan	1 day	6/14/17 8:00 AM	6/14/17 5:00 PM	4
17		Analysis	2 days	6/23/17 8:00 PM	6/23/17 5:00 PM	
18		Identify the end user requirements.	0 days	6/23/17 8:00 PM	6/23/17 5:00 PM	7
19		Perform a gap analysis.	0 days	6/23/17 8:00 PM	6/23/17 5:00 PM	18
20		Identify quality requirements	1 day	6/24/17 8:00 AM	6/24/17 5:00 PM	19
21		Conduct requirements analysis.	0 days	6/24/17 8:00 PM	6/24/17 5:00 PM	20
22		Create Process Model	1 day	6/27/17 8:00 AM	6/27/17 5:00 PM	18;19;20;22
23		Design	6 days	6/29/17 8:00 AM	7/5/17 5:00 PM	
24		Create Architecture document of the project	2 days	6/29/17 8:00 AM	6/30/17 5:00 PM	
25		Create Implementation Plan	2 days	7/1/17 8:00 AM	7/3/17 5:00 PM	24
26		Create Test Plan	2 days	7/1/17 8:00 AM	7/3/17 5:00 PM	25
27		Define the general features of the system	1 day	7/1/17 8:00 AM	7/1/17 5:00 PM	18;21;24
28		Create a Contingency/Disaster Recovery Plan	1 day	7/4/17 8:00 AM	7/4/17 5:00 PM	24;25
29		Development	20 days	7/4/17 8:00 AM	7/25/17 5:00 PM	
30		Developing the solution components	5 days	7/4/17 8:00 AM	7/8/17 5:00 PM	24;25;27
31		Developing the testing tools and tests	5 days	7/10/17 8:00 AM	7/14/17 5:00 PM	30
32		Develop specific standards and methods of the system	5 days	7/16/17 8:00 AM	7/20/17 5:00 PM	31
33		Develop tools, actions and responsibility	5 days	7/22/17 8:00 AM	7/26/17 5:00 PM	32
34		Testing	5 days	7/29/17 8:00 AM	8/1/17 5:00 PM	
35		Implementation of User Acceptance Test	1 day	7/29/17 8:00 AM	7/29/17 5:00 PM	33
36		Identifies test procedure creation	1 day	7/30/17 8:00 AM	7/30/17 5:00 PM	35
37		Document results of test	0 days	7/30/17 8:00 PM	7/30/17 5:00 PM	36
38		Test Procedure Definition	1 day	7/30/17 8:00 AM	7/30/17 5:00 PM	37
39		Create Test Problem results	1 day	7/31/17 8:00 AM	7/31/17 5:00 PM	38
40		Creates Readiness	1 day	7/31/17 8:00 AM	8/1/17 5:00 PM	39

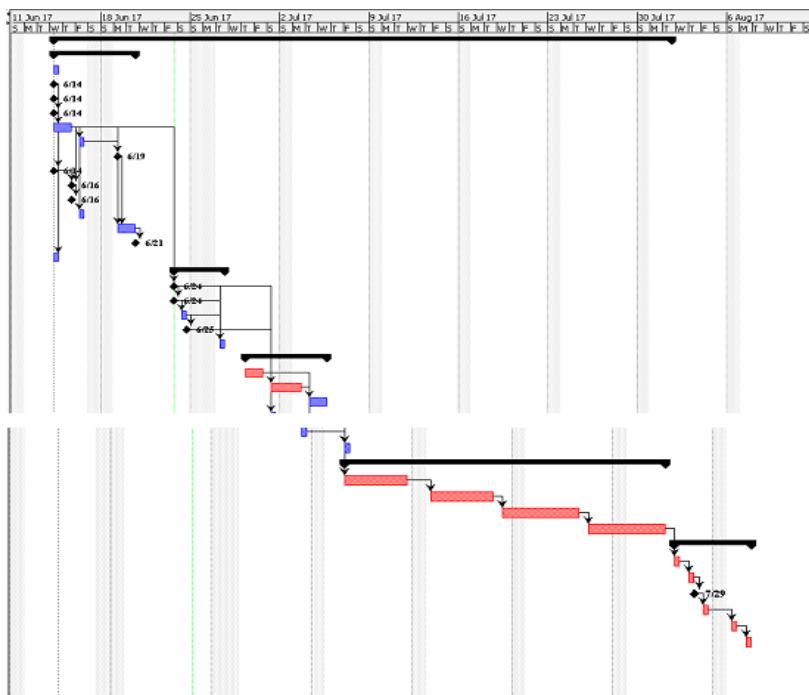


Figure 3: Entity Relationship

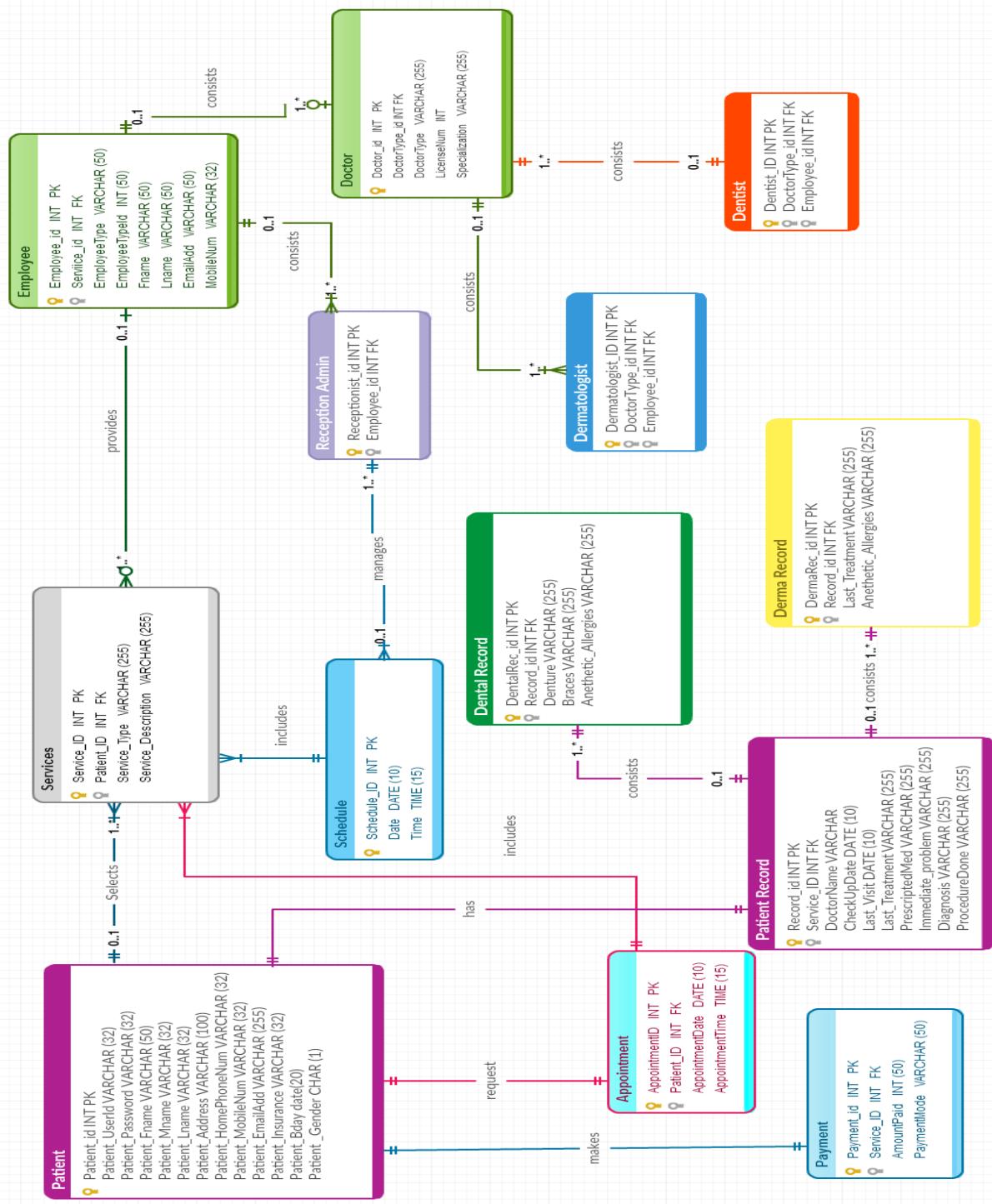


Figure 4: Class Diagram

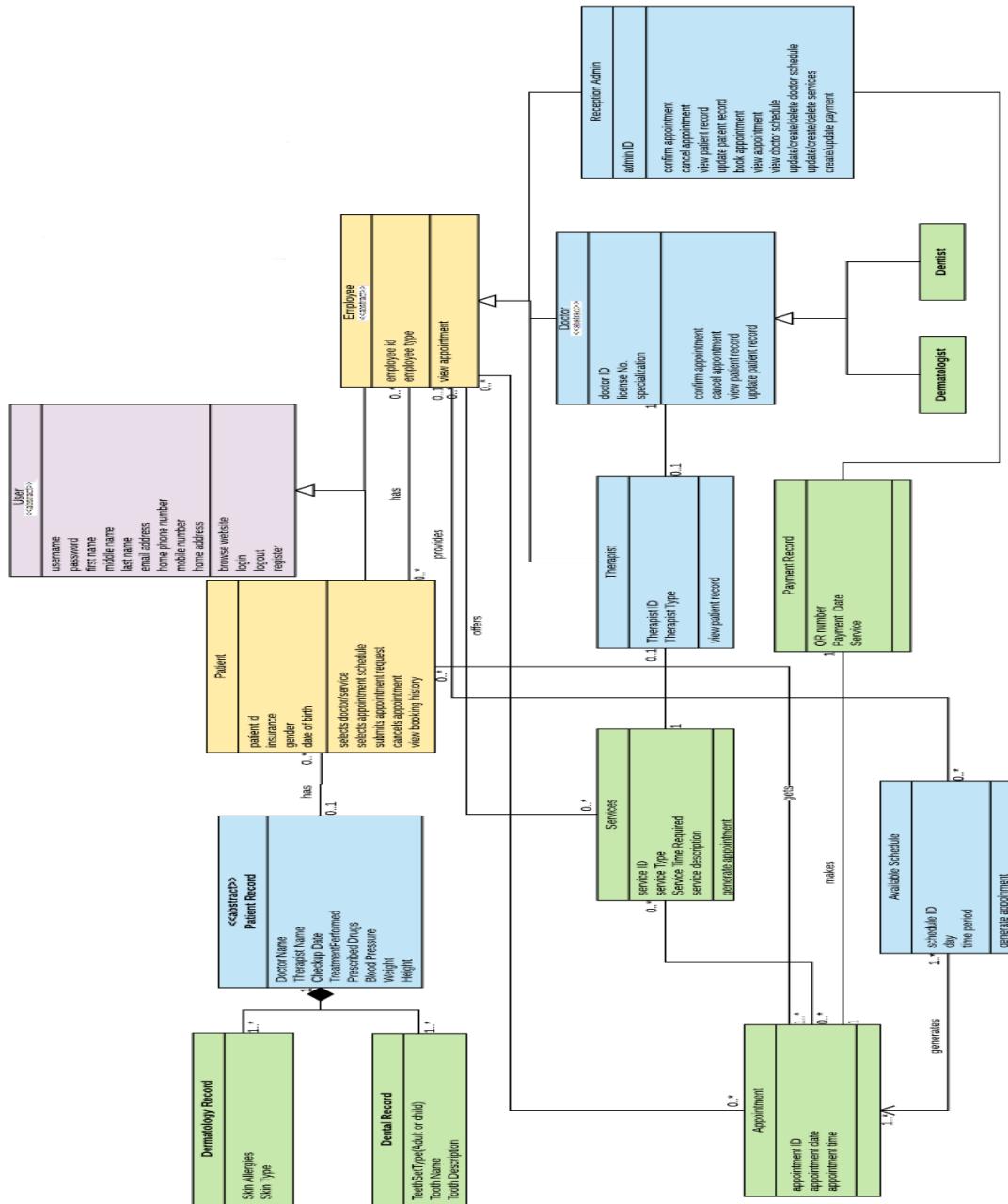


Figure 5: Functional Decomposition Diagram

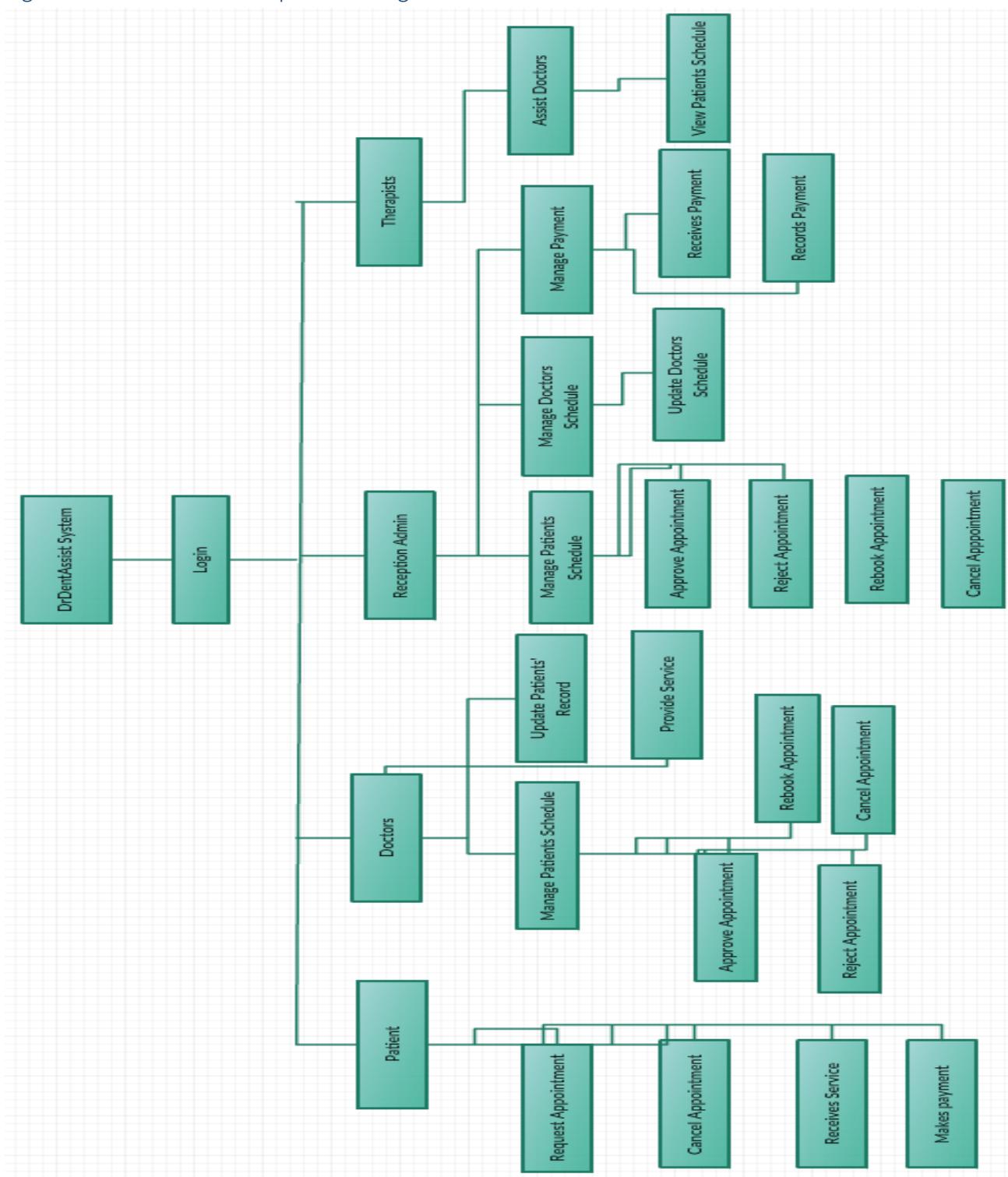


Figure 6: Use Case Diagram

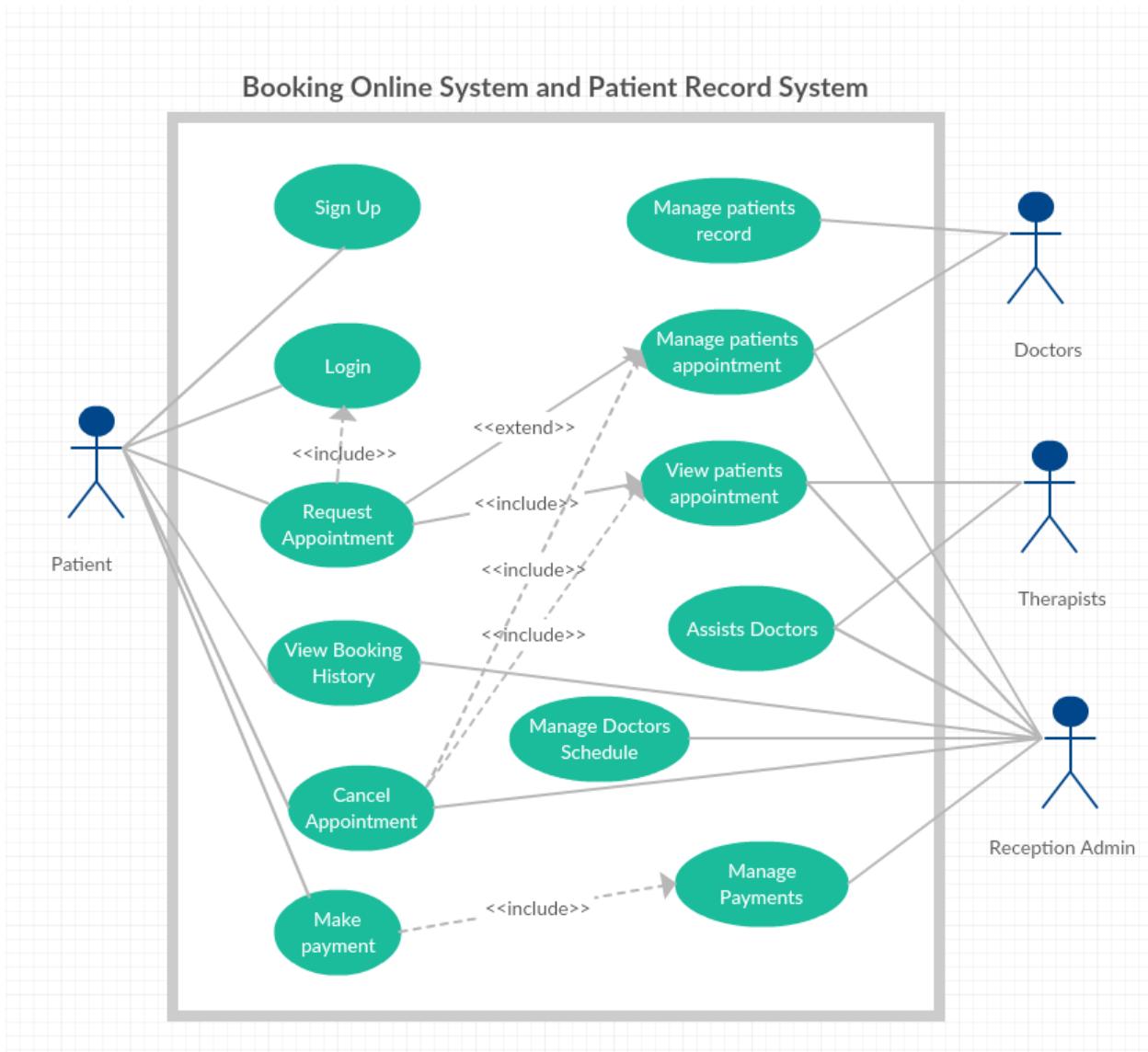


Figure 7: Context Flow Diagram

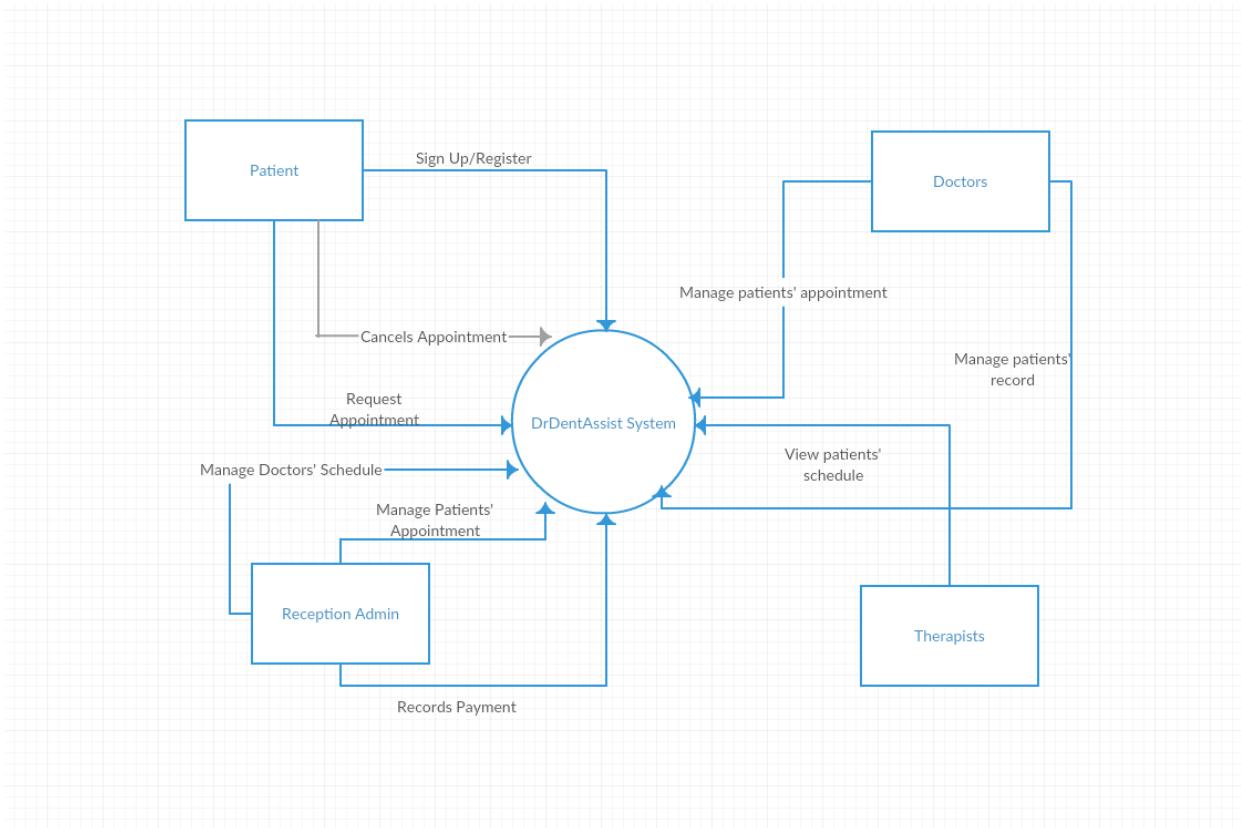


Figure 8: Package Diagram

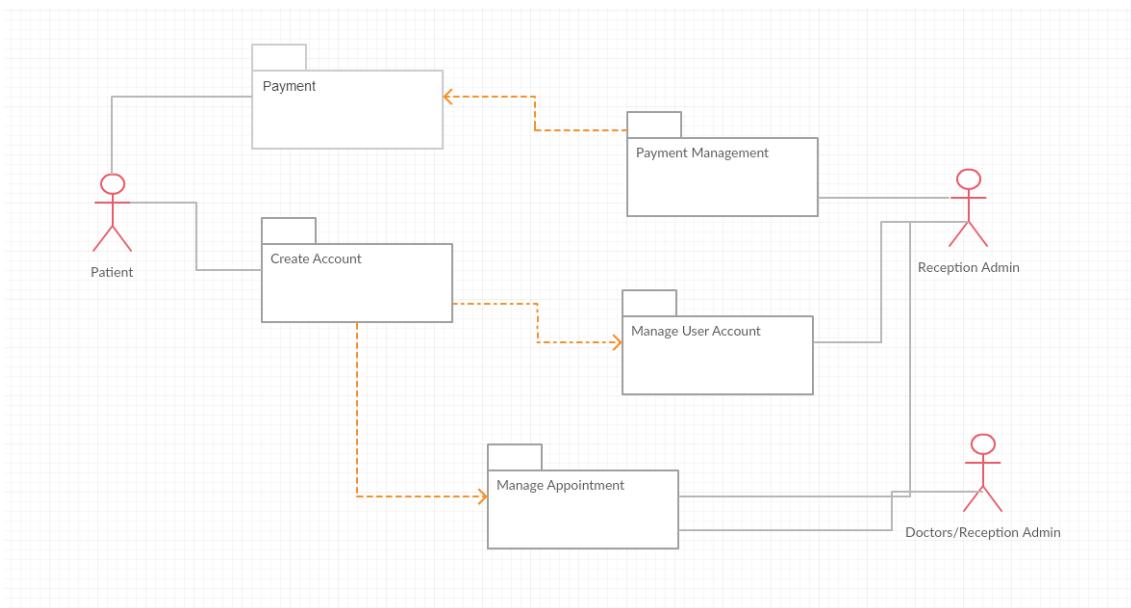
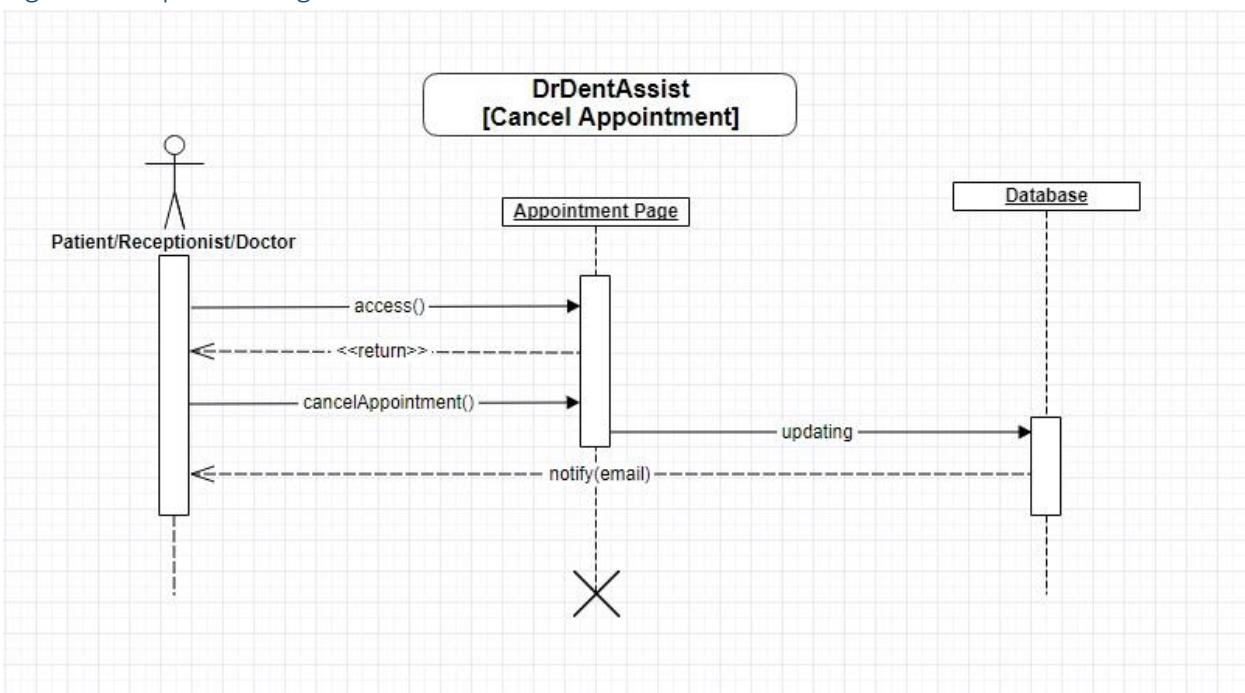
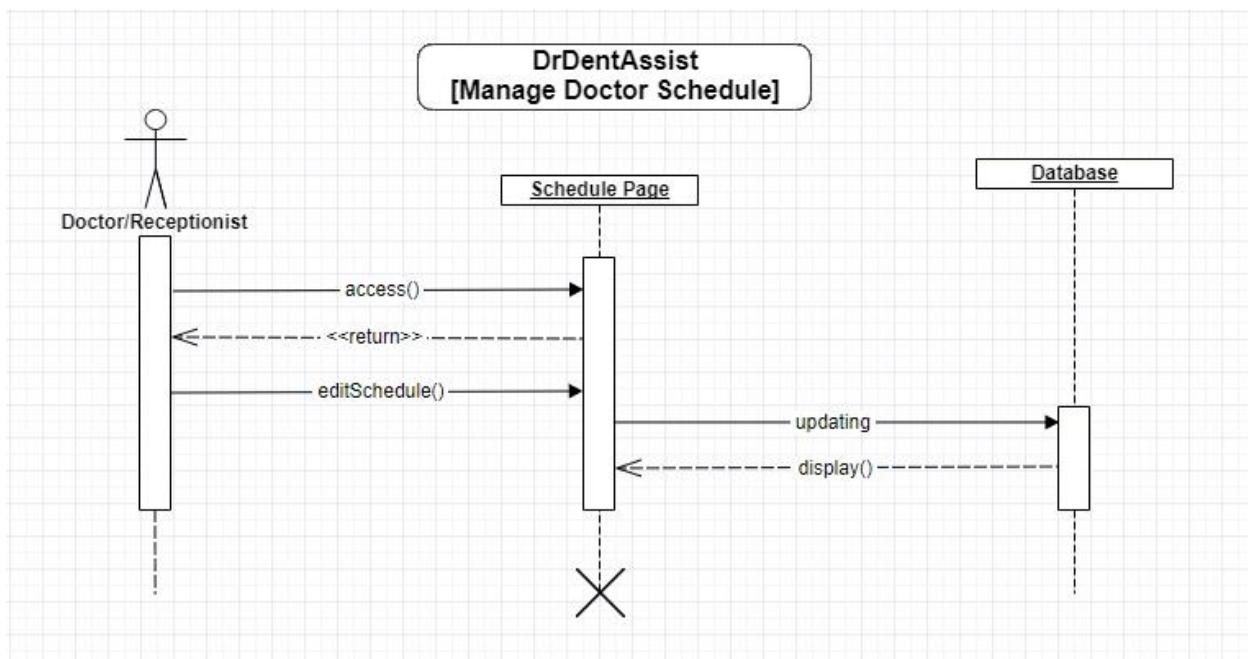
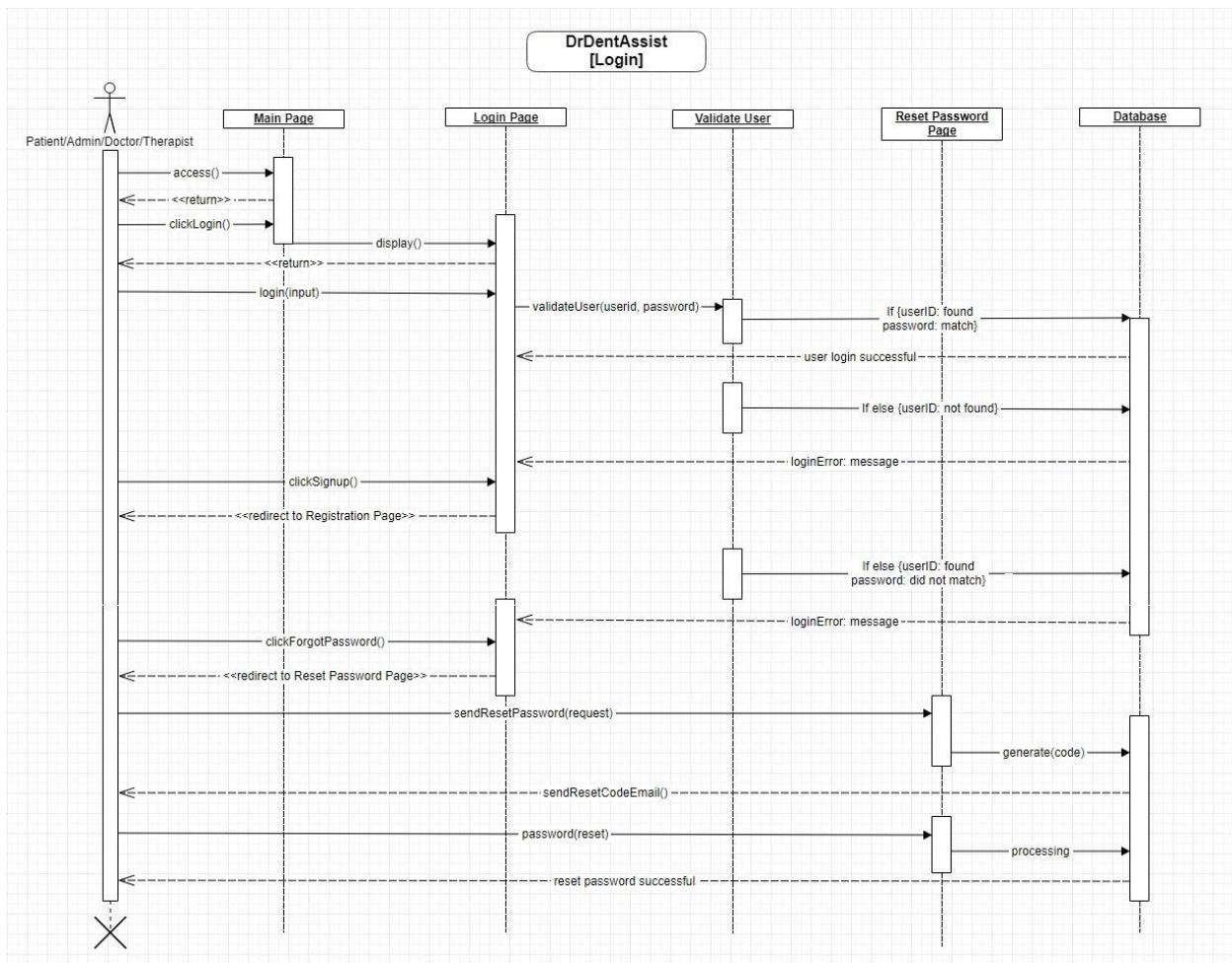
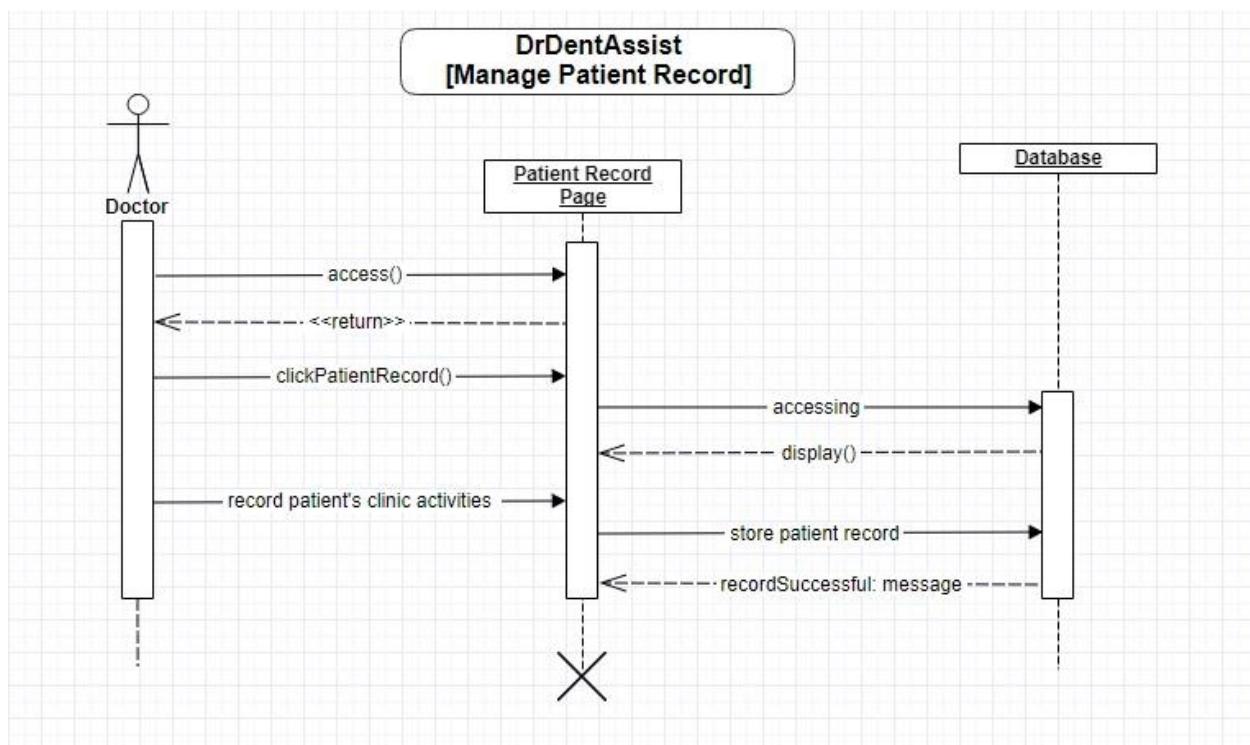
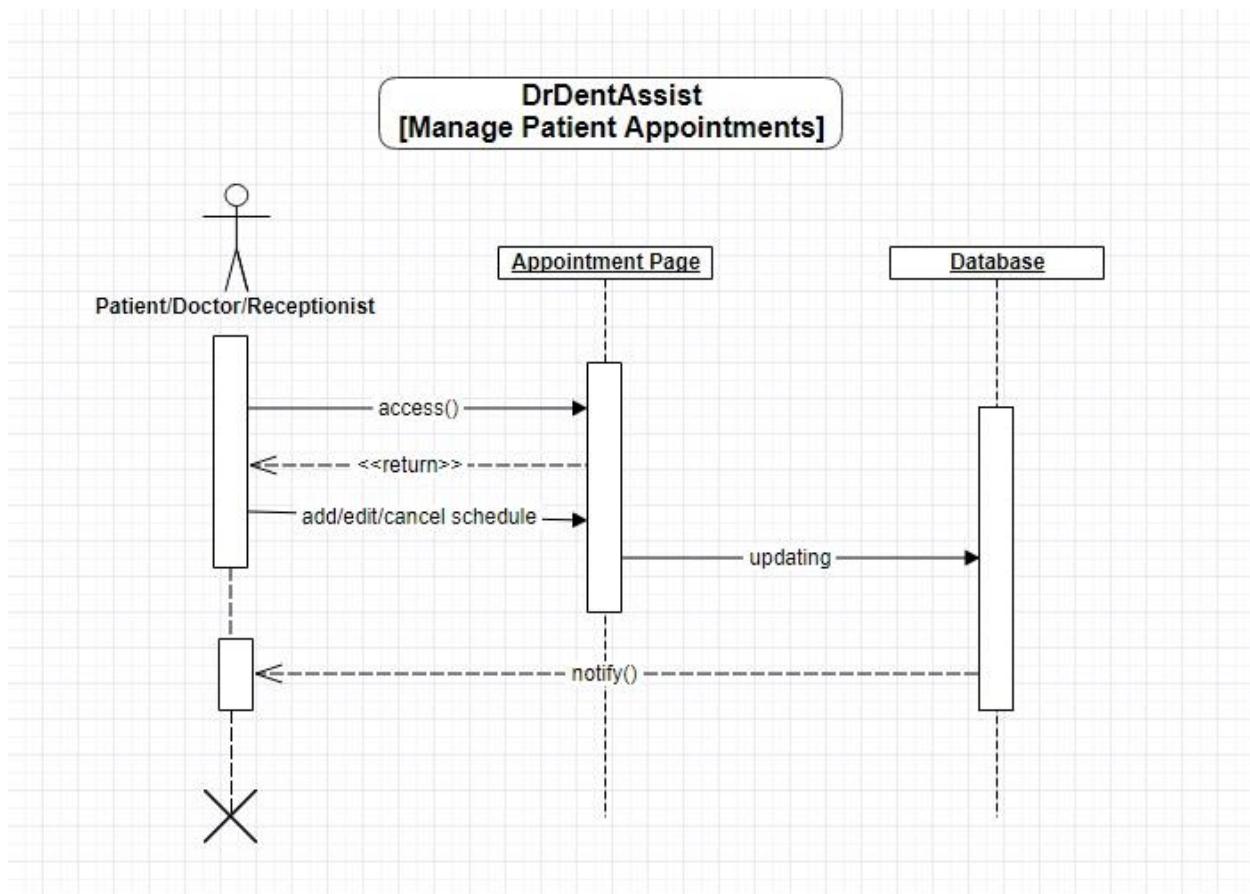
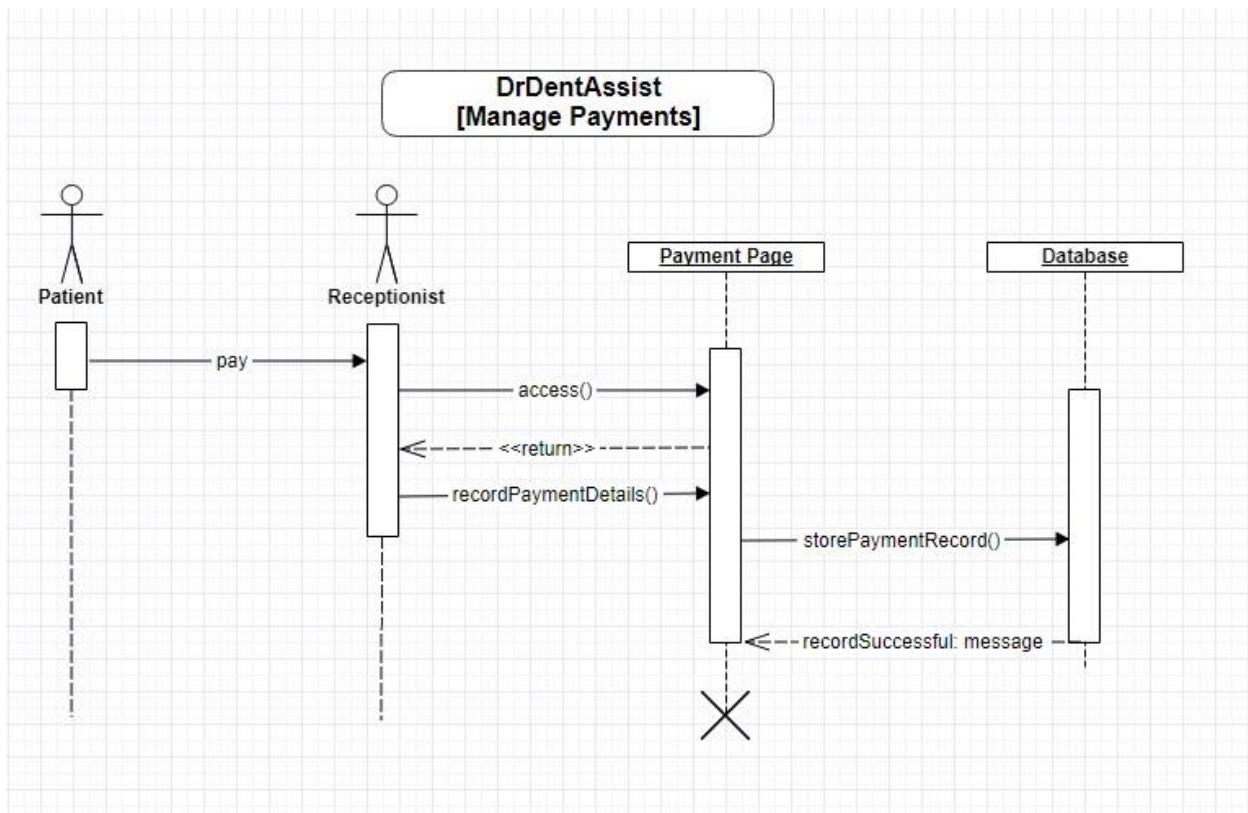


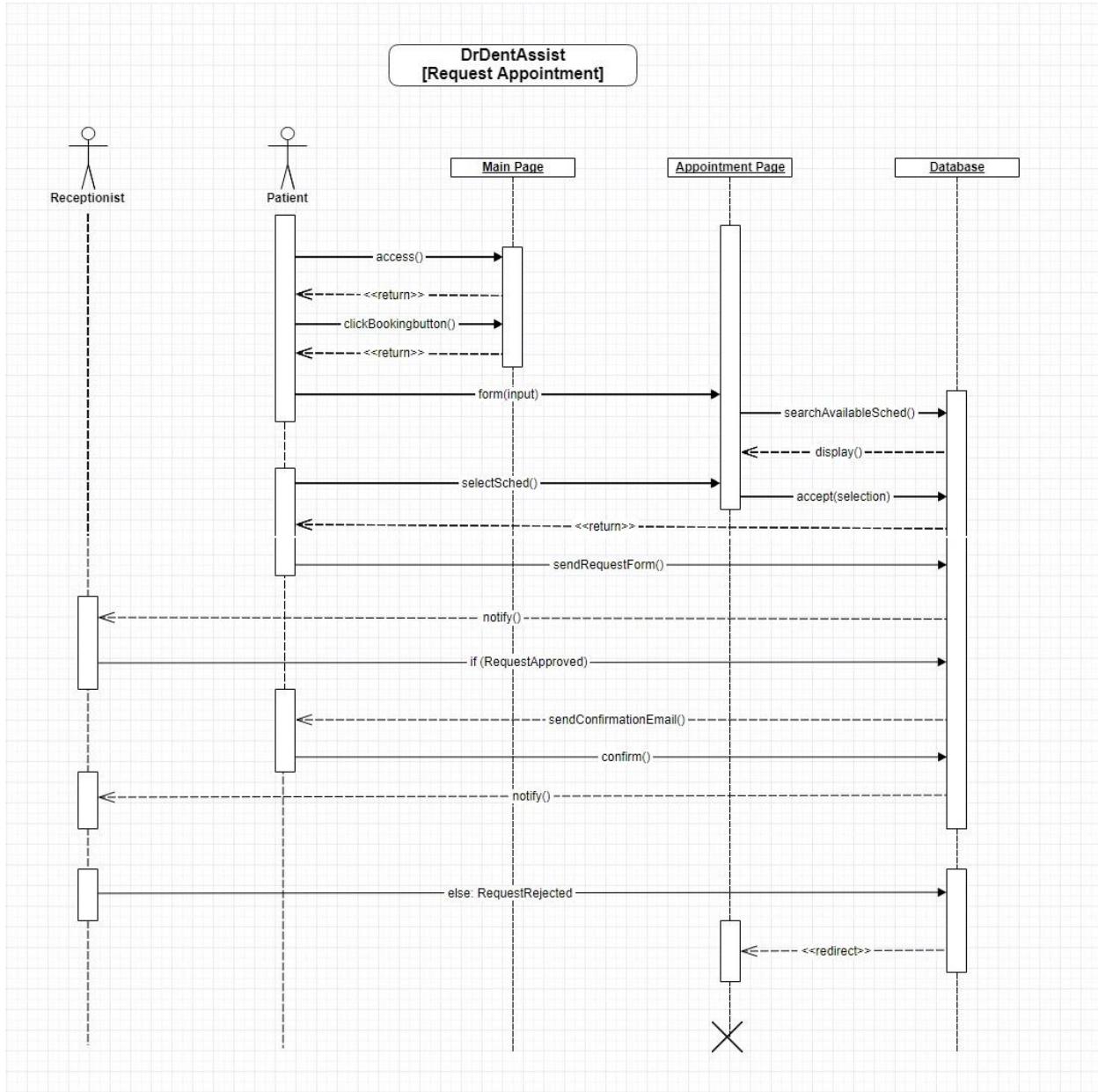
Figure 9: Sequence Diagram

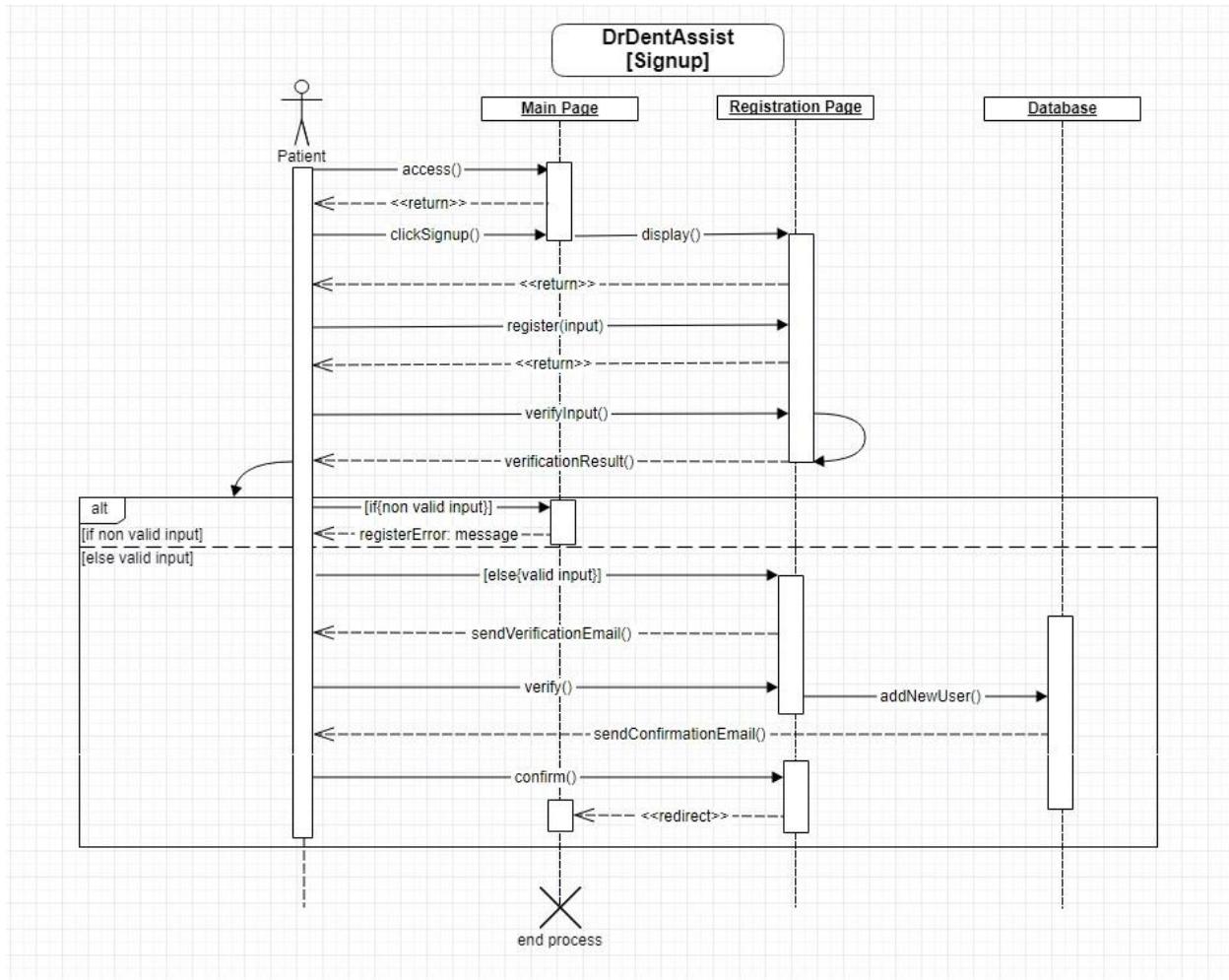




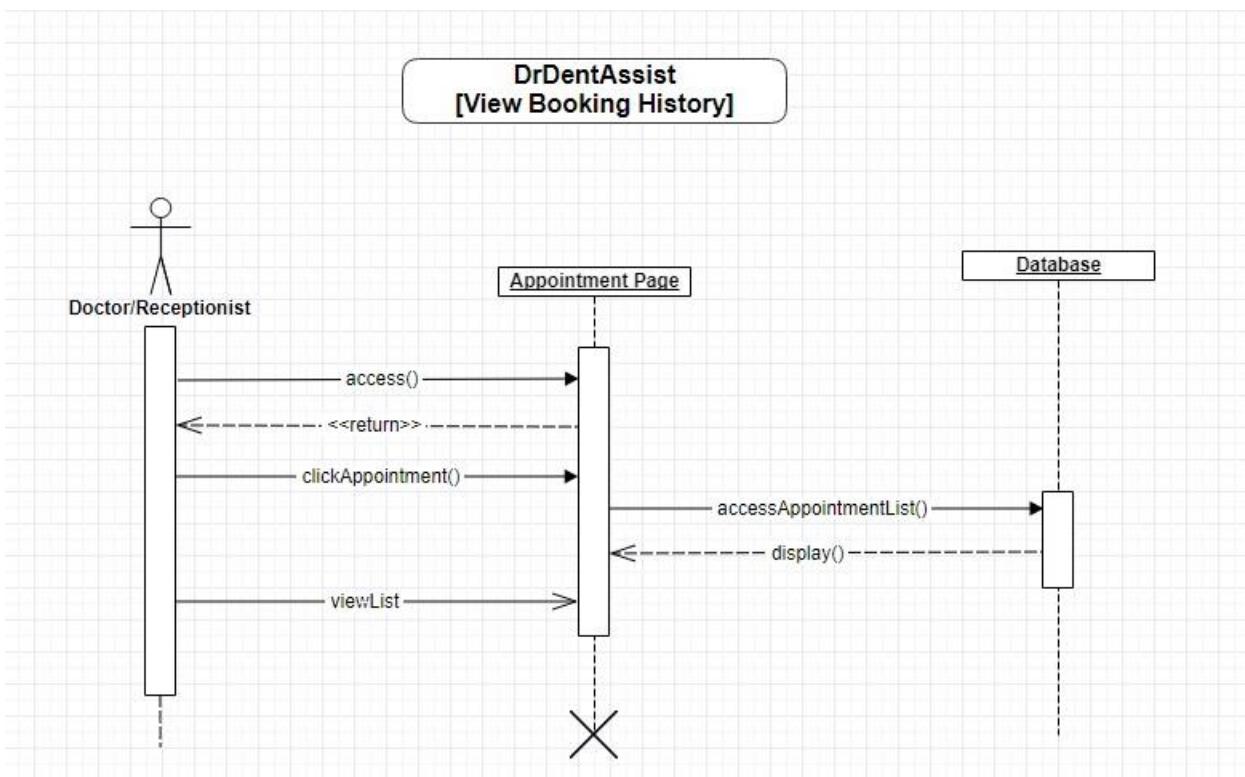








DrDentAssist
[View Booking History]



DrDentAssist
[View Patient Appointment]

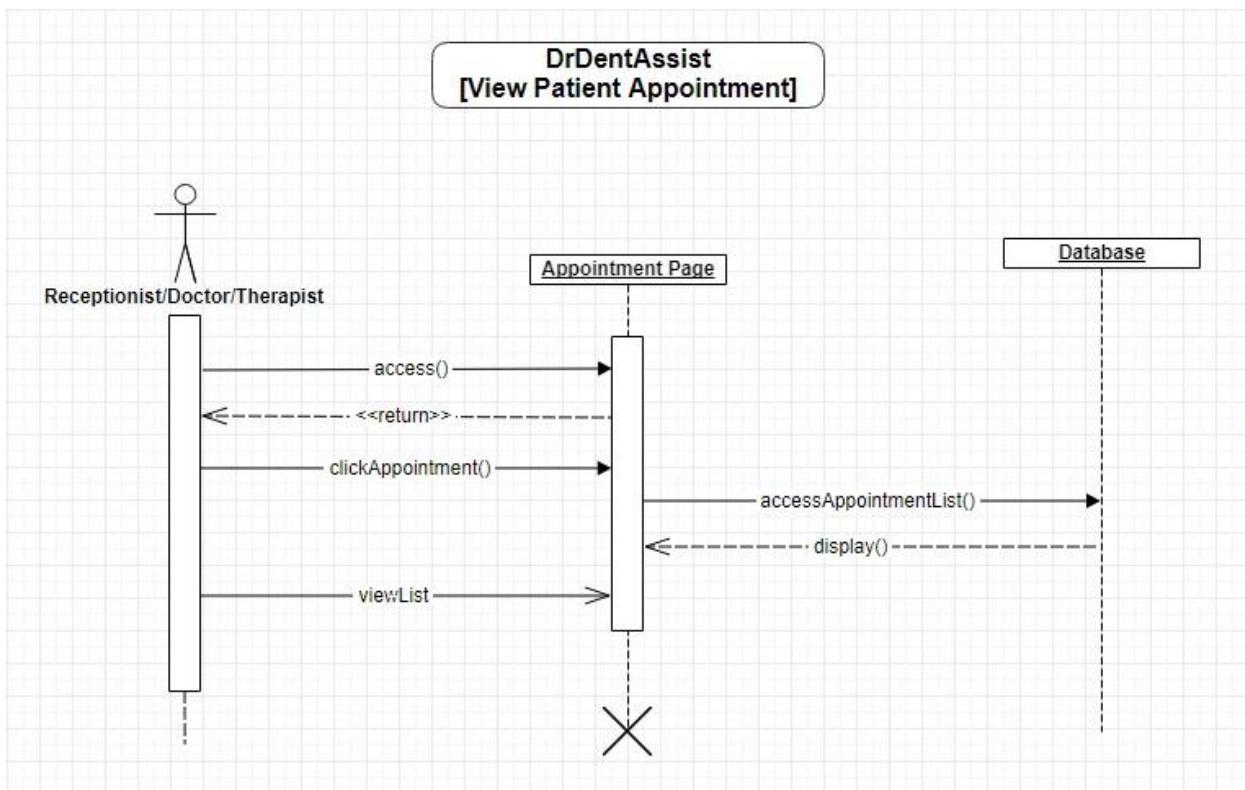
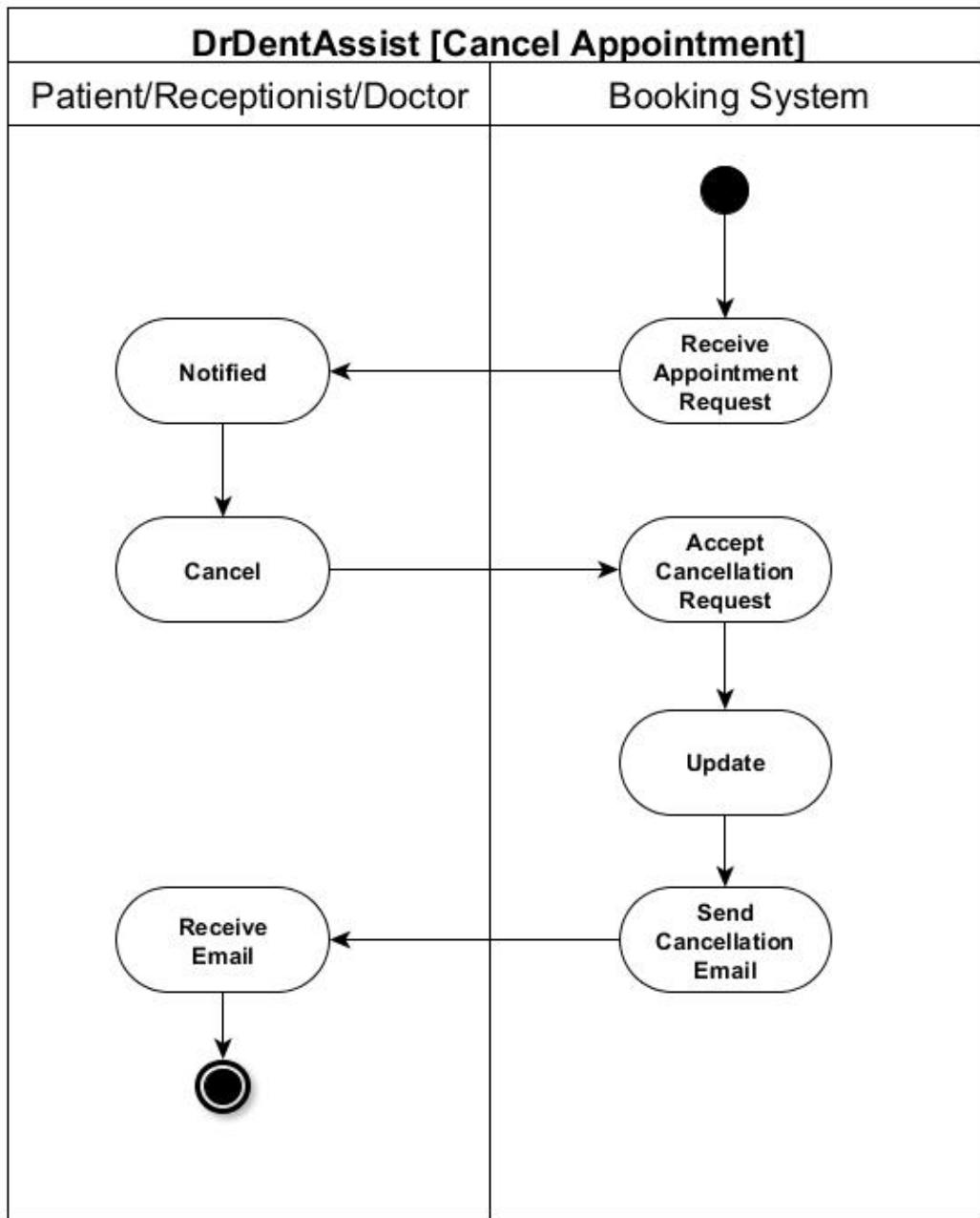
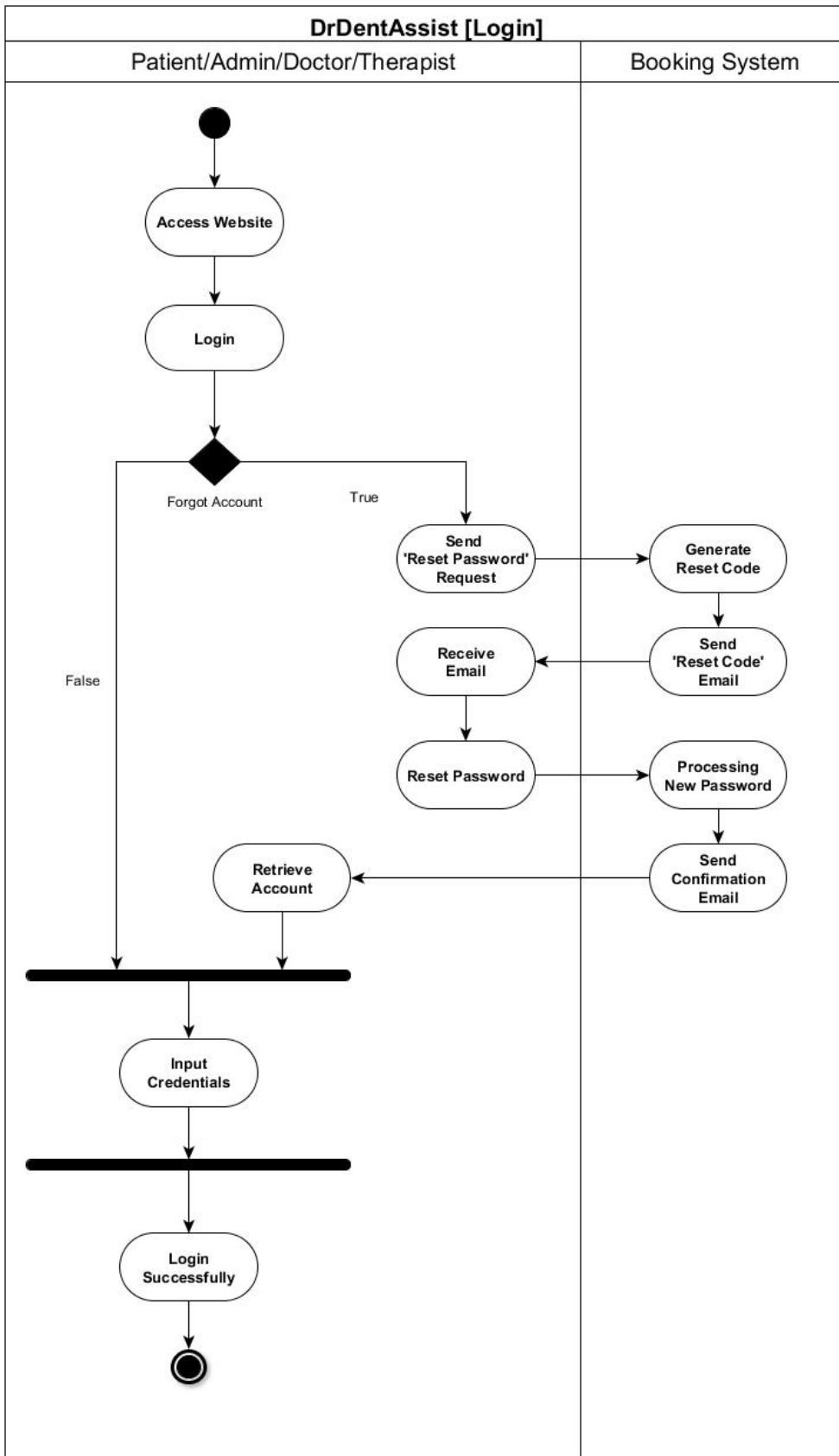
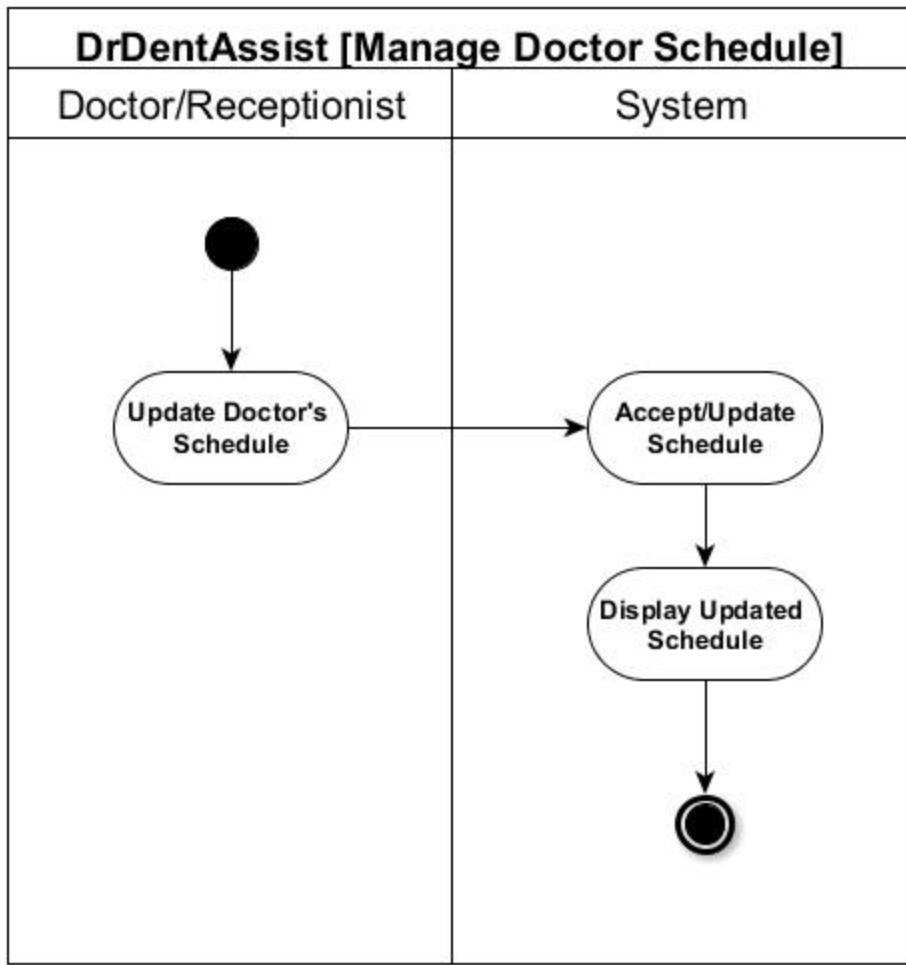
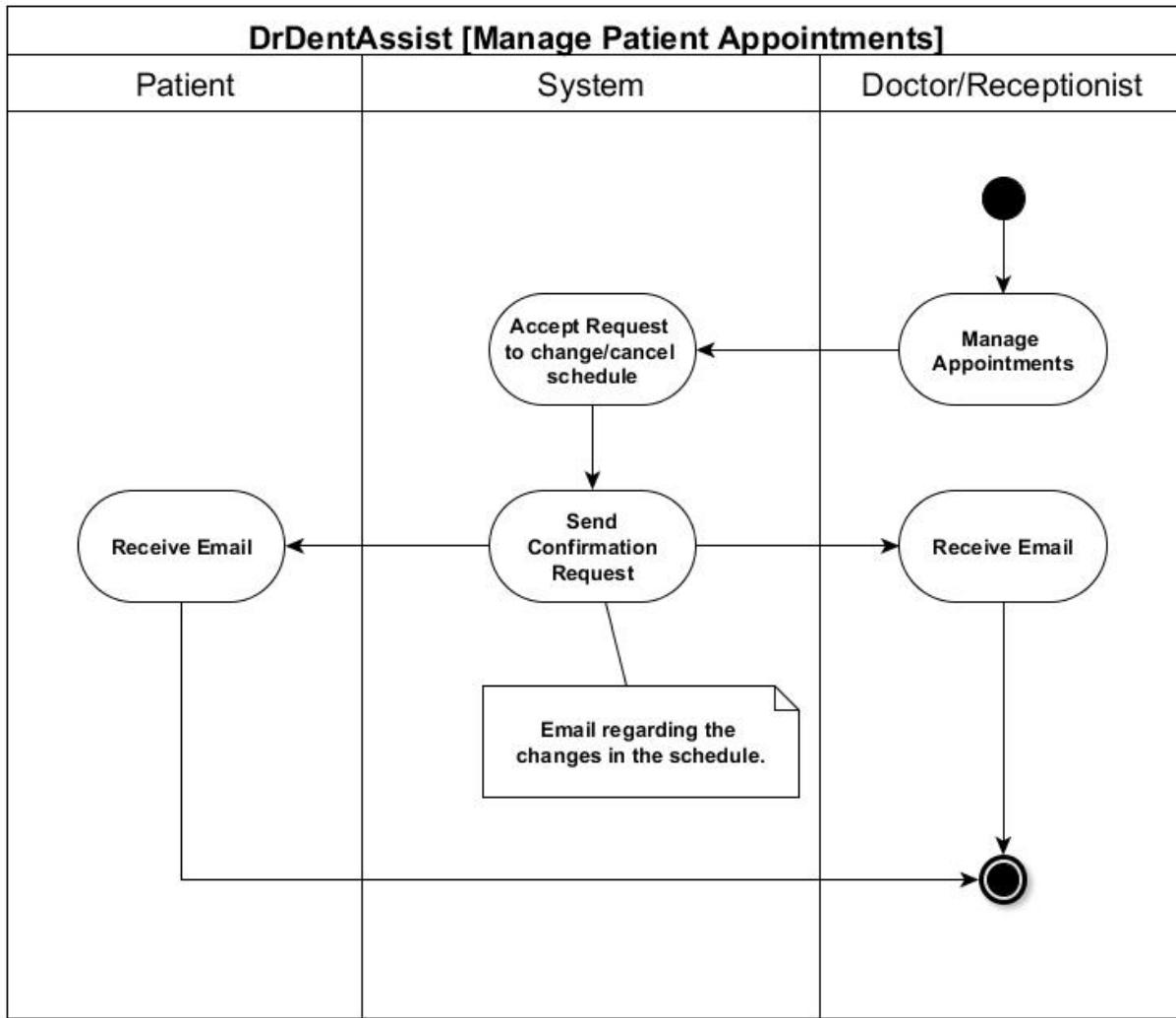


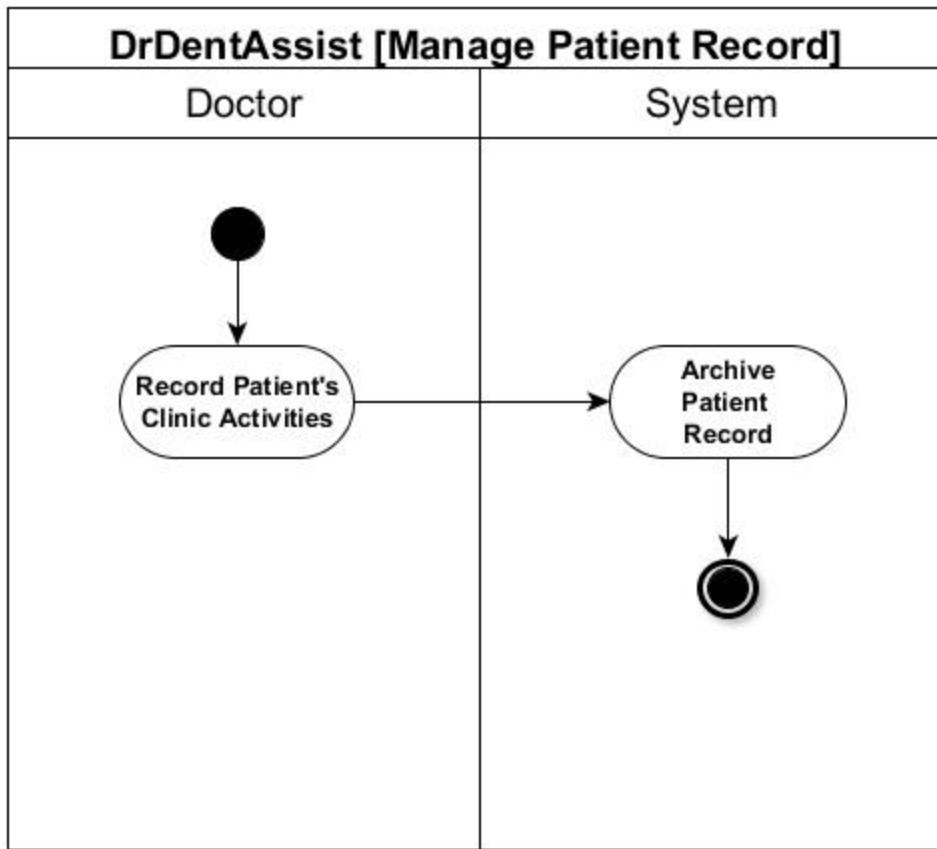
Figure 10: Activity Diagram

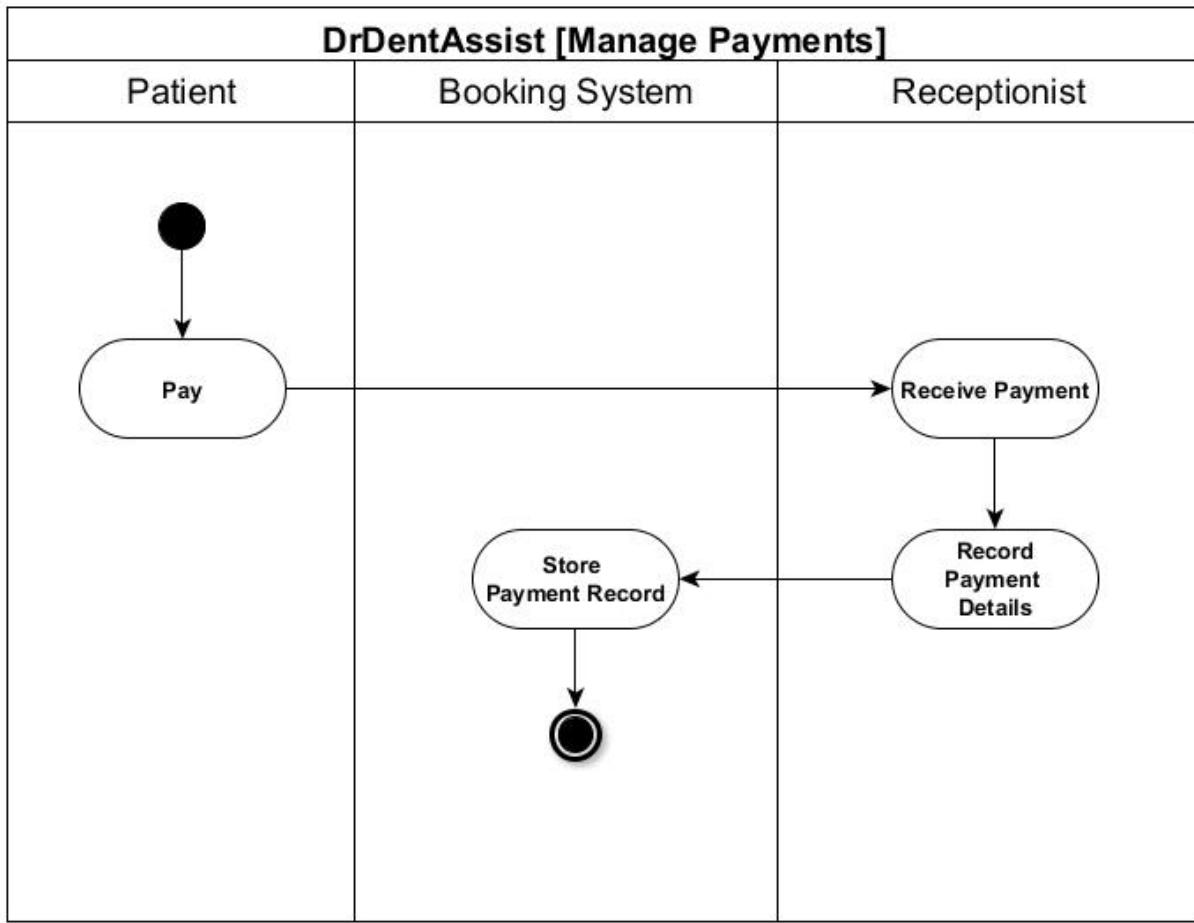


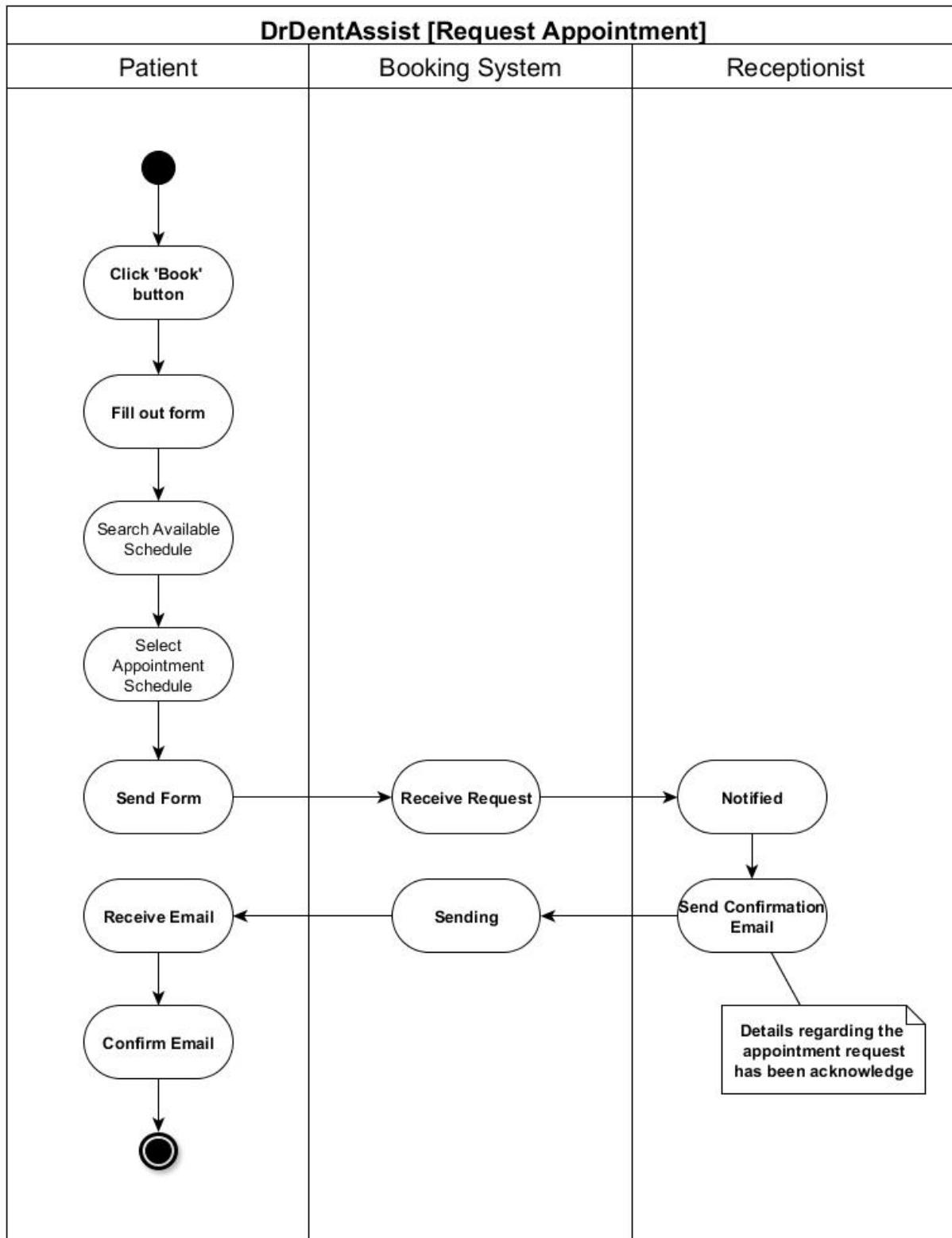


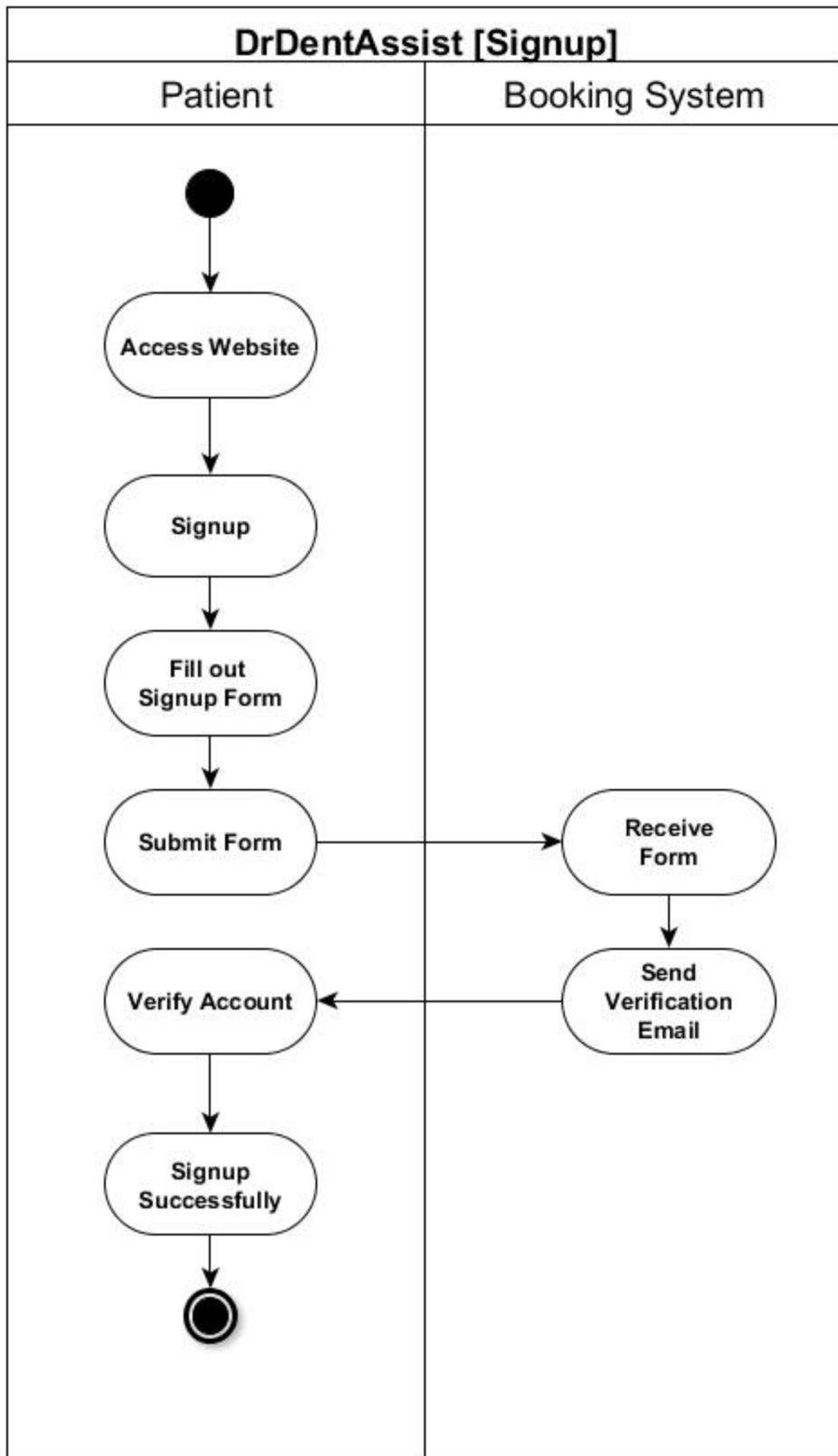


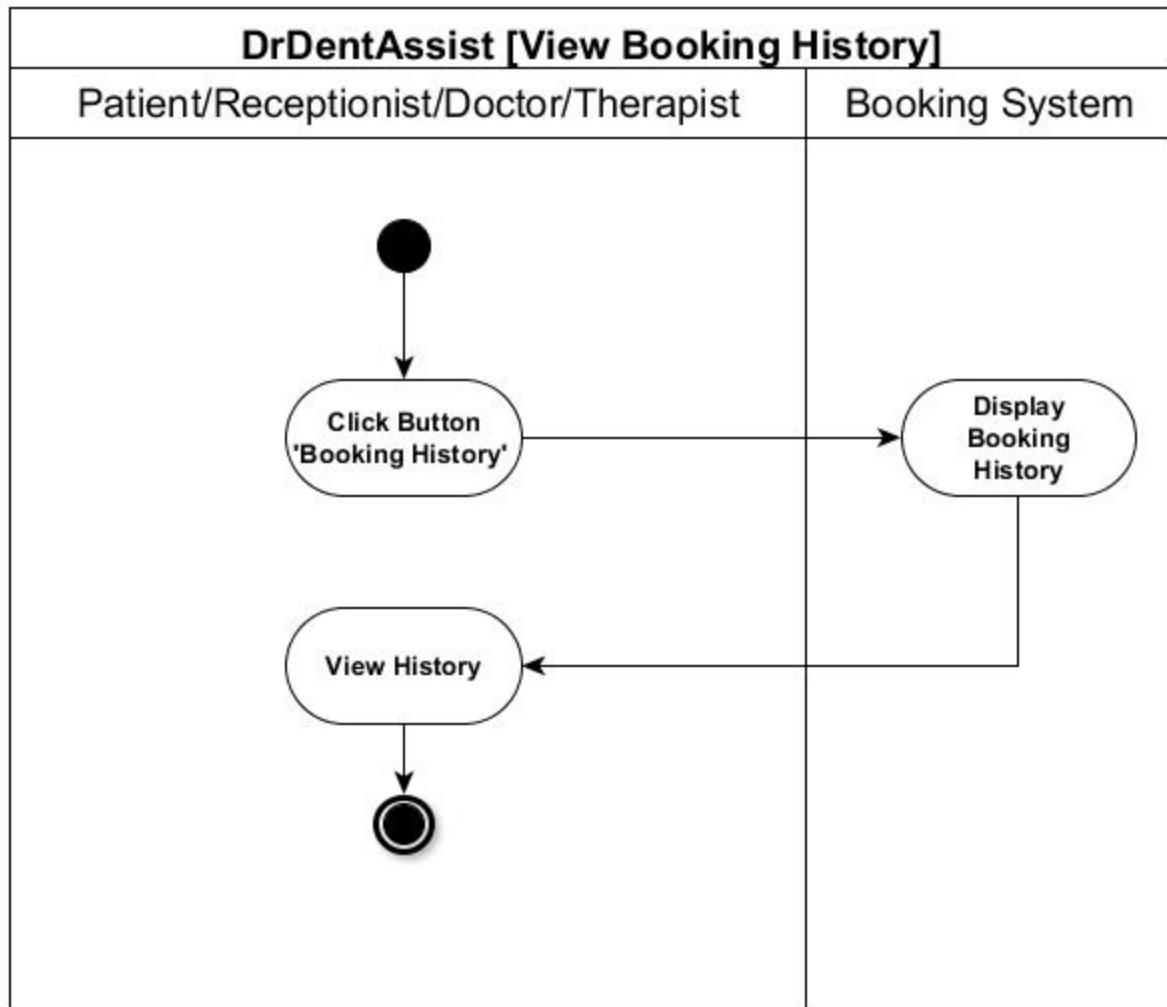












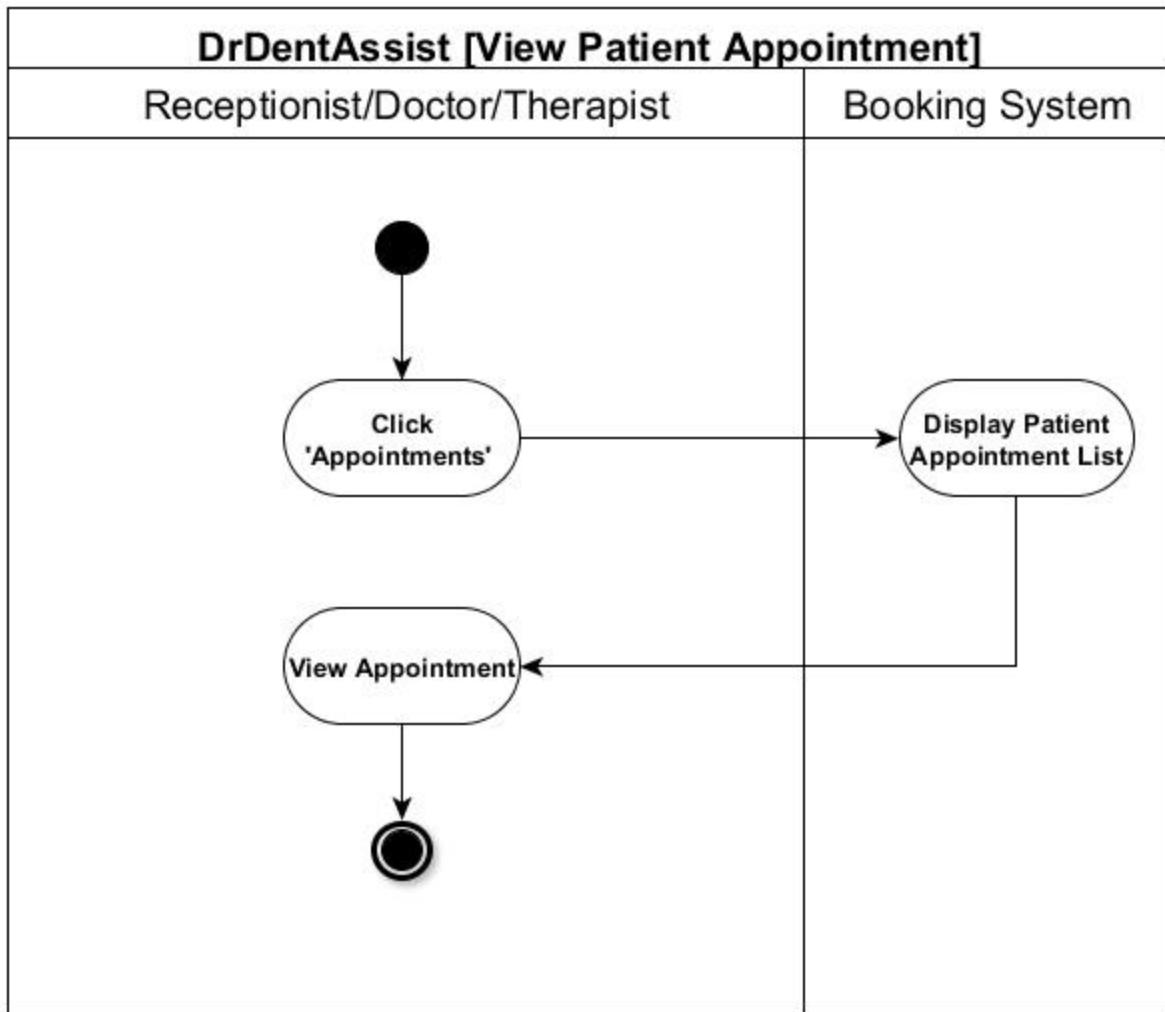


Figure 11: Data Flow Diagram Level 0

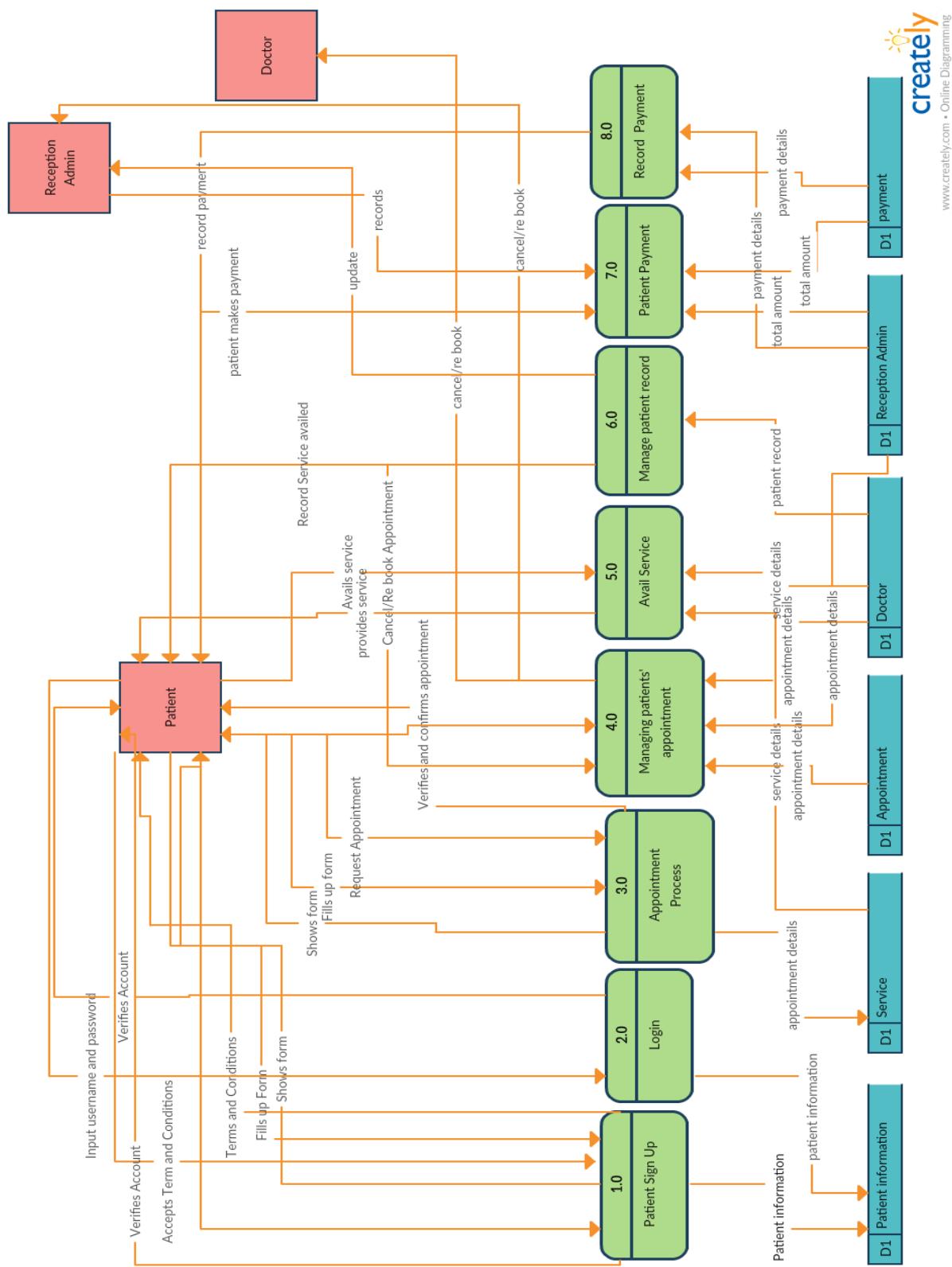
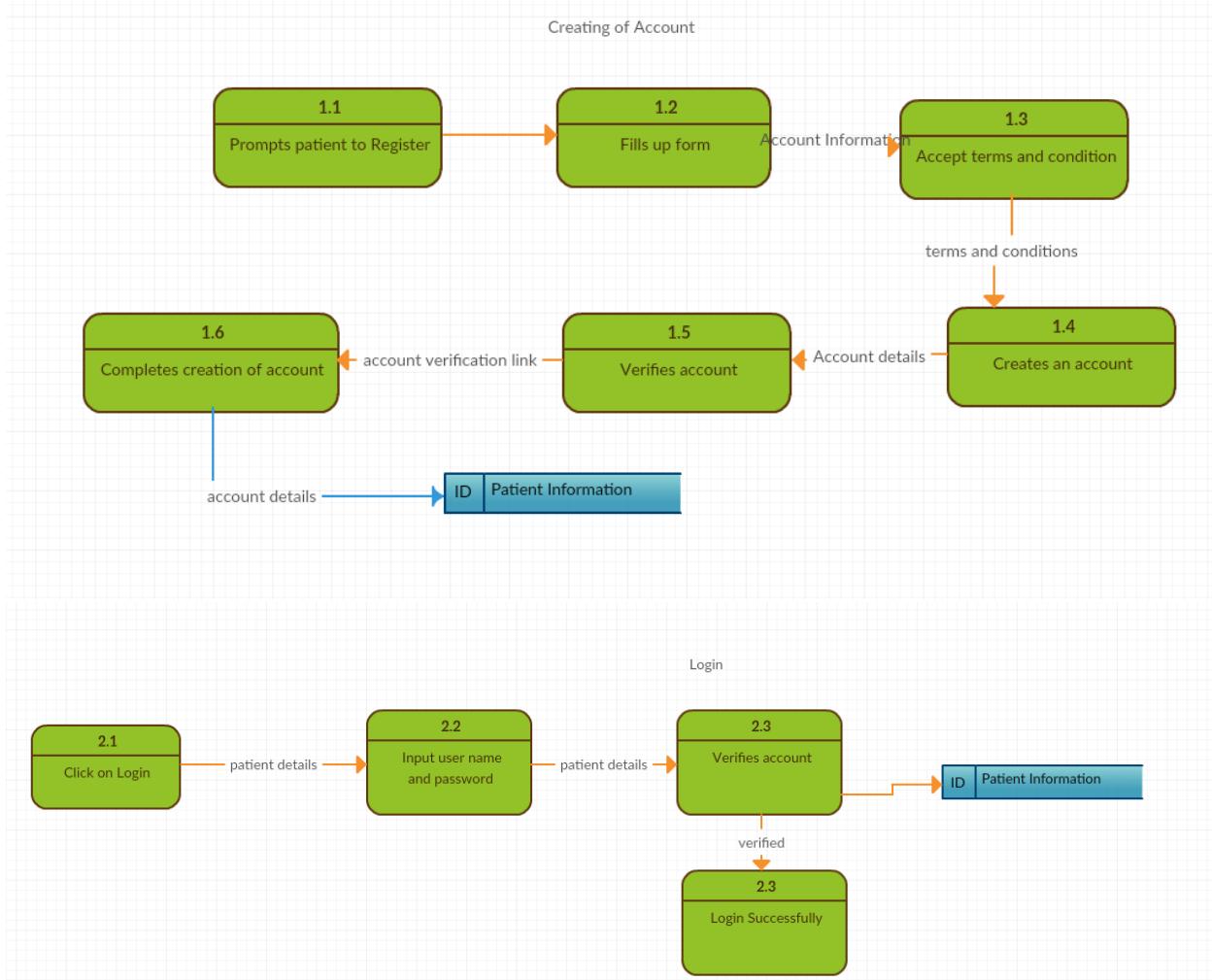


Figure 12: Data Flow Level 1



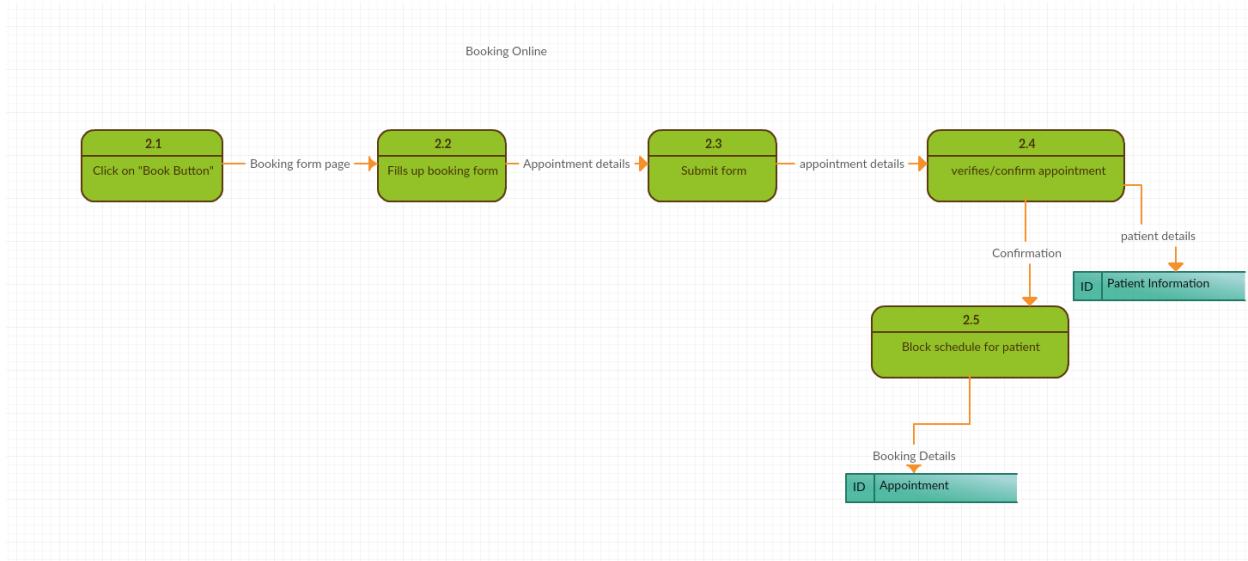


Figure 12: Deployment Diagram

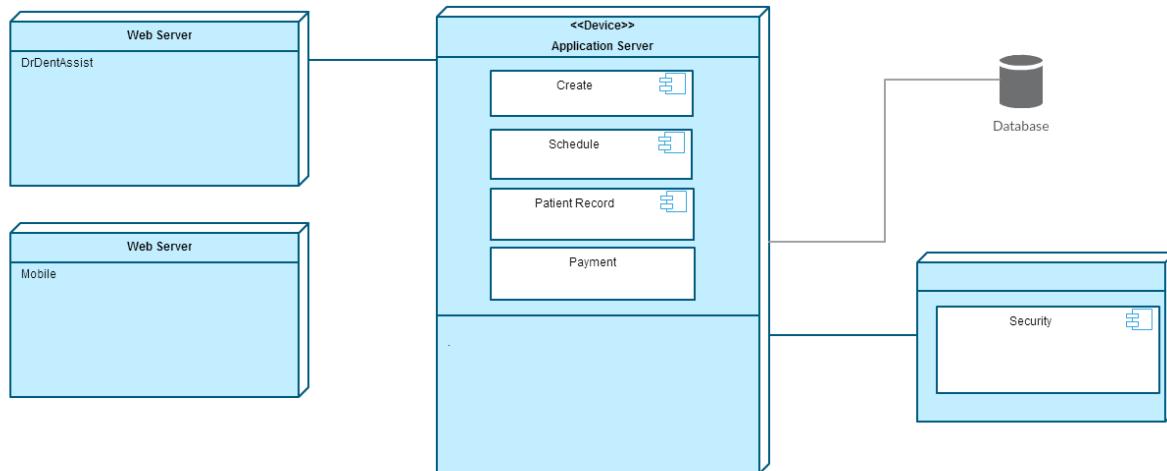


Figure 13: Component Diagram

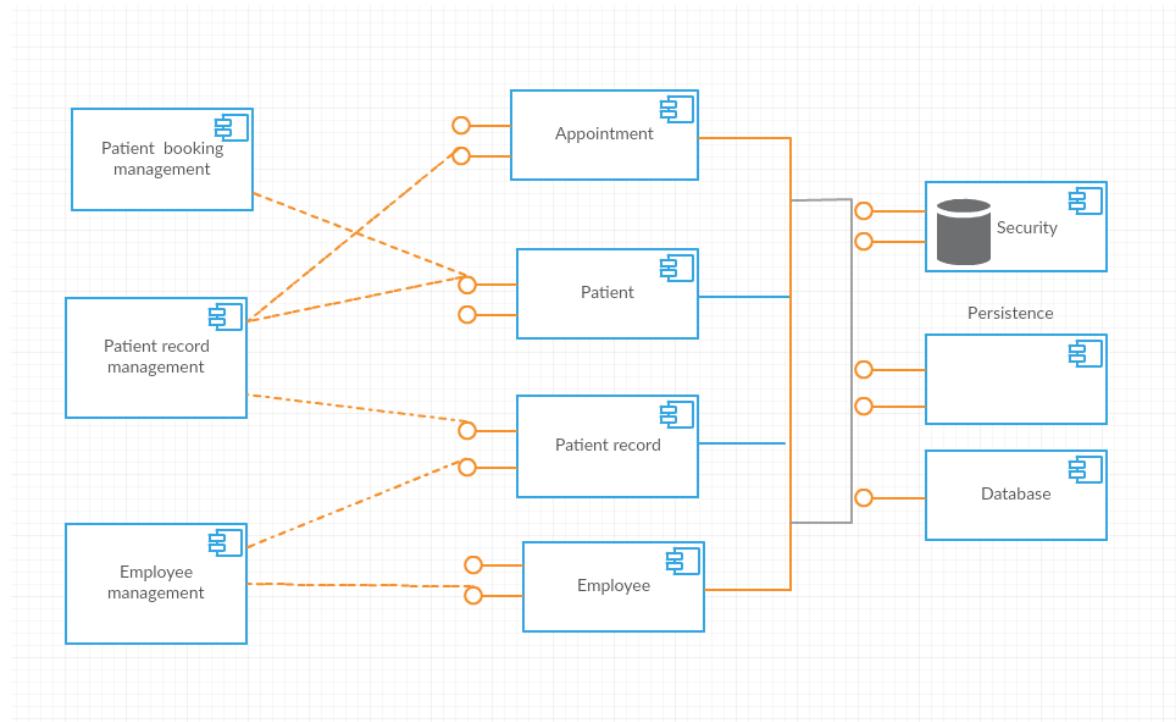


Figure 14: State Transition Diagram

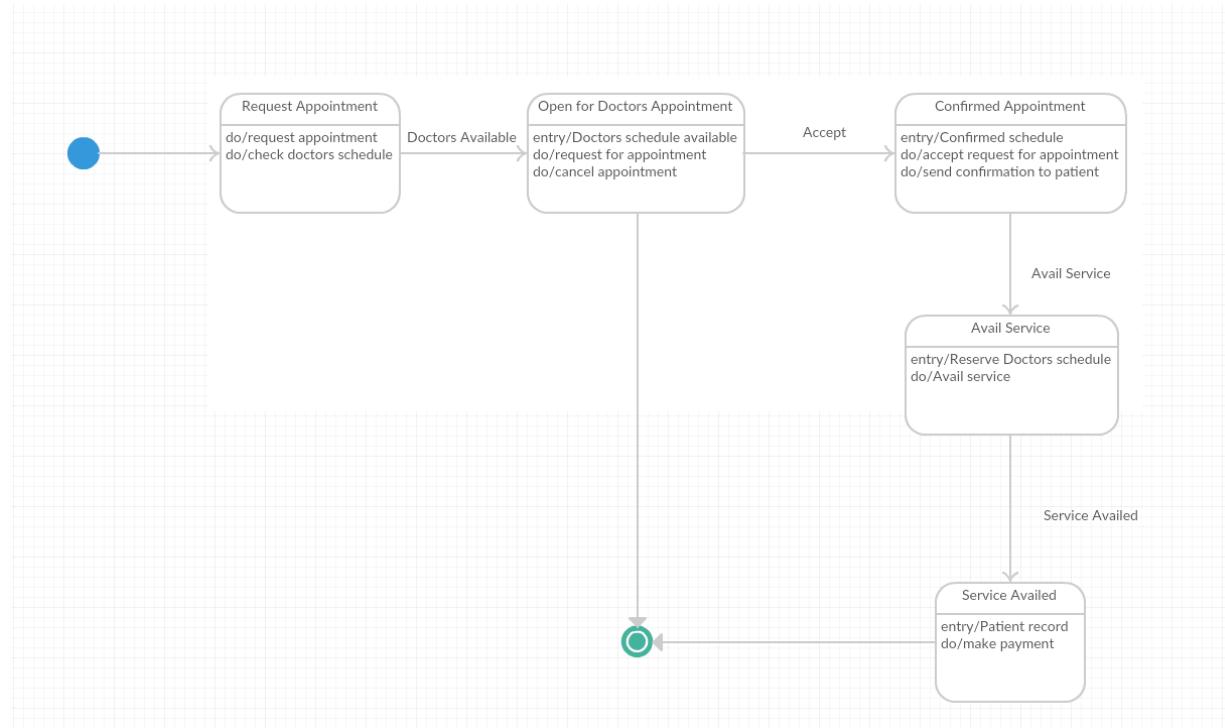
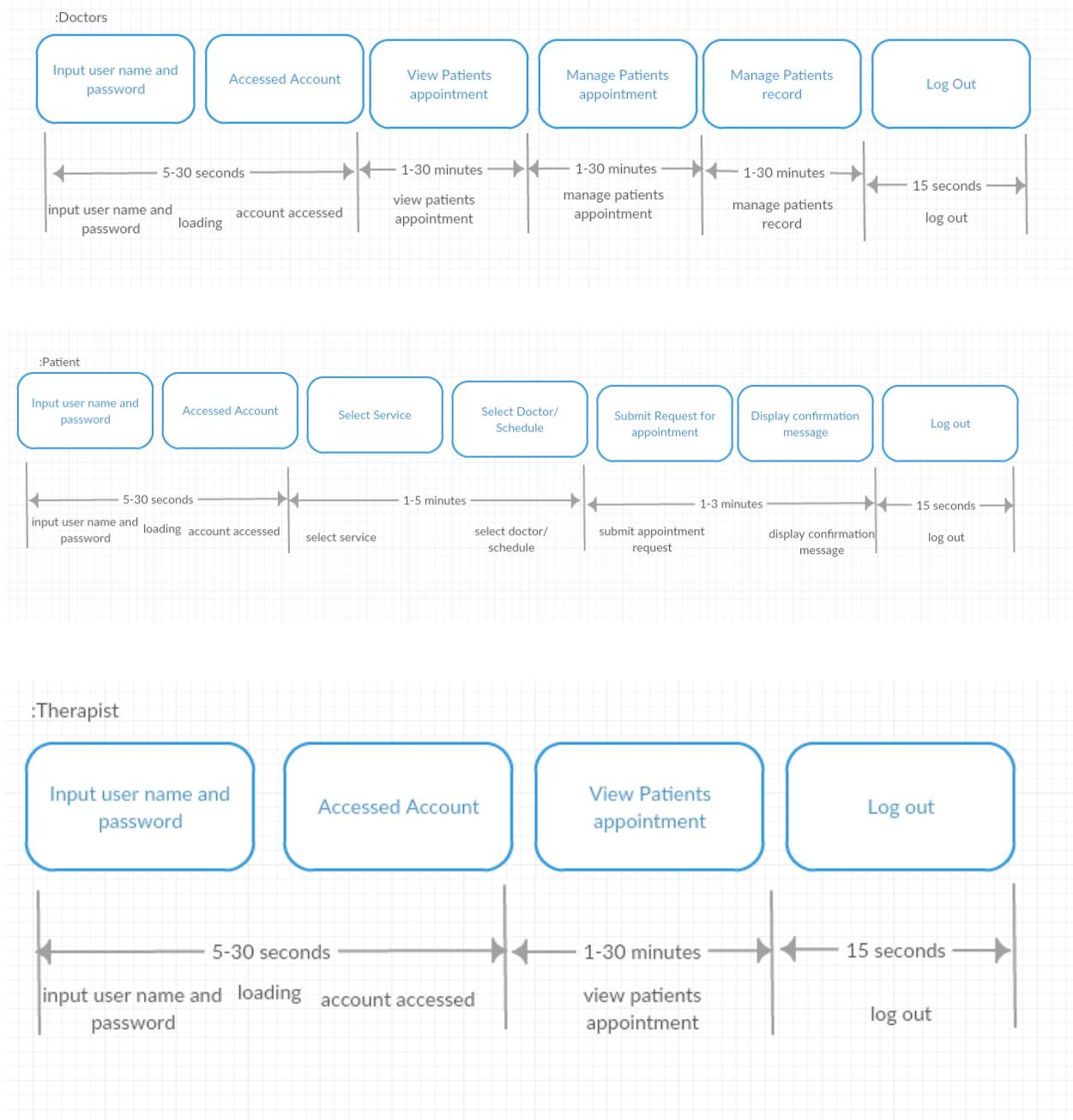


Figure 15: Timing Diagram



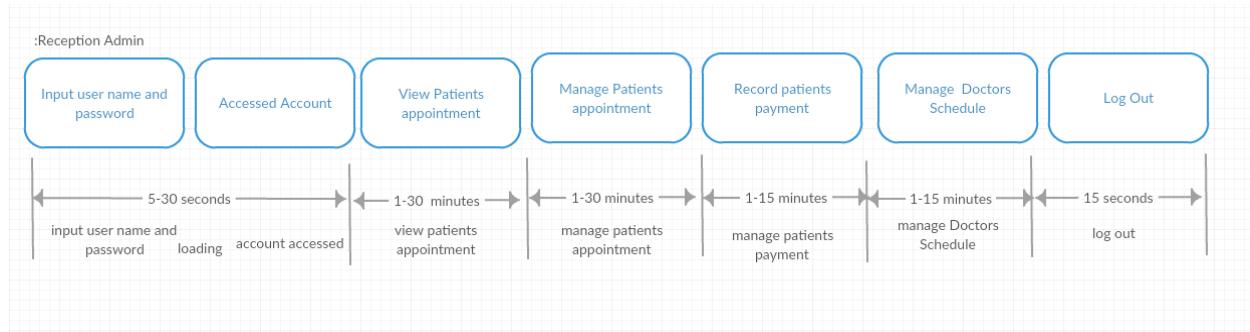


Table 1: Data Dictionary

Appointment						
Field Name	Data Type	Field Format	Field Size	Key	Nullability	Description
AppointmentID	Integer	9999999999	50	PK	Not	Appointment Id number
Patient_ID	Integer	9999999999	50	FK	Not	Patient ID Number
AppointmentDate	Date	MM/DD/YYYY	10		Not	Appointment date
AppointmentTime	Time	hh:mm:ss	10		Not	Appointment time

Dental Record						
Field Name	Data Type	Field Format	Field Size	Key	Nullability	Description
DentalRec_id	Integer	9999999999	50		Not	Dental record id number
Record_id	Integer	9999999999	50		Not	Record id number
Last_Visit	Date	MM/DD/YYYY	10			Last date of visit
last_treatment	Varchar	Xxxxxxxxxxxxxx	255			Last treatment
Denture	Varchar	Xxxxxxxxxxxxxx	255			Patient Denture
Braces	Varchar	Xxxxxxxxxxxxxx	255			Patient Braces
Anesthetic_Allergies	Varchar	Xxxxxxxxxxxxxx	255			Anesthetic Allergies

Dentist						
Field Name	Data Type	Field Format	Field Size	Key	Nullability	Description
Dentist_ID	Integer	9999999999	50		Not	Dentist Id number
DoctorType_id	Integer	9999999999	50		Not	Doctor type id number
Employee_id	Integer	9999999999	50		Not	Employee id number

Derma Record						
Field Name	Data Type	Field Format	Field Size	Key	Nullability	Description
DermaRec_id	Integer	9999999999	50		Not	Derma Record Id number
Record_id	Integer	9999999999	50		Not	Record ID number
Last_Visit	Date	MM/DD/YYYY	10			Last date of visit
last_treatment	Varchar	MM/DD/YYYY	255			Last treatment
Anesthetic_Allergies	Varchar	Xxxxxxxxxxxxxx	255			Anesthetic Allergies

Dermatologist						
Field Name	Data Type	Field Format	Field Size	Key	Nullability	Description
Dermatologist_ID	Integer	9999999999	50		Not	Dermatologist id number
DoctorType_id	Integer	9999999999	50		Not	Doctor type id number
Employee_id	Integer	9999999999	50		Not	Employee id number

Doctor						
Field Name	Data Type	Field Format	Field Size	Key	Nullability	Description
Doctor_id	Integer	9999999999	50		Not	Doctor id number
DoctorType_id	Integer	9999999999	50		Not	Doctor type id number
DoctorType	Varchar	Xxxxxxxxxxxxxx	50		Not	Type of Doctor
LicenseNum	Integer	9999999999	50			License number of Doctor
Specialization	Varchar	Xxxxxxxxxxxxxx	255		Not	Doctor's specialization

Employee						
Field Name	Data Type	Field Format	Field Size	Key	Nullability	Description
Employee_id	Integer	9999999999	50		Not	Employee id number
Service_ID	Integer	9999999999	50			Service id number
EmployeeType_id	Integer	9999999999	50			Employee type id number
EmployeeType	Varchar	Xxxxxxxxxxxx	50			Type of employee
Fname	Varchar	Xxxxxxxxxxxx	50			Employees' first name
Lname	Varchar	Xxxxxxxxxxxx	50			Employees' last name
EmailAdd	Integer	9999999999	50			Employees' email address
MobileNum	Integer	9999999999	10			Employees' mobile number

Patient						
Field Name	Data Type	Field Format	Field Size	Key	Nullability	Description
Patient_ID	Integer	9999999999	50	PK	Not	Patient ID Number
Patient_UserId	VarChar	Xxxxxxxxxxxx	32		Not	Patient user id
Patient_Password	VarChar	Xxxxxxxxxxxx	32		Not	Patient password
Patient_Fname	VarChar	Xxxxxxxxxxxx	50			Patient first name
Patient_Mname	VarChar	Xxxxxxxxxxxx	32			Patient middle name
Patient_Lname	VarChar	Xxxxxxxxxxxx	32			Patient last name
Patient_Address	VarChar	Xxxxxxxxxxxx	100			Patient address
Patient_HomePhoneNum	VarChar	Xxxxxxxxxxxx	32			Patient home phone number
Patient_MobileNum	VarChar	Xxxxxxxxxxxx	32			Patient mobile number
Patient_EmailAdd	VarChar	Xxxxxxxxxxxx	255			Patient email address
Patient_Insurance	VarChar	Xxxxxxxxxxxx	32			Patient Insurance
Patient_Birthdate	Date	MM/DD/YYYY	20			Patient Birthdate
Patient_Gender	Char	X	1			Patient Gender

Patient Record						
Field Name	Data Type	Field Format	Field Size	Key	Nullability	Description
Record_id	Integer	9999999999	50	PK	Not	Record id numbe
Patient_id	Integer	9999999999	50	FK	Not	Patient id number
Service_ID	Integer	9999999999	50	FK	Not	Service ID number
DoctorName	Varchar	Xxxxxxxxxxxx	50		Not	Service ID number
CheckUpDate	Date	MM/DD/YYYY	10		Not	Check up date of patient
PrescribedMed	Varchar	Xxxxxxxxxxxx	255			Prescription of patient
Diagnosis	Varchar	Xxxxxxxxxxxx	255		Not	Diagnosis of patient
ProcedureDone	Varchar	Xxxxxxxxxxxx	255		Not	Procedure done to patient
Immediate_problem	Varchar	Xxxxxxxxxxxx	255		Not	Immediate problem of patient

Payment						
Field Name	Data Type	Field Format	Field Size	Key	Nullability	Description
Payment_id	Integer	9999999999	50	PK	Not	Payment ID number
Service_ID	Integer	9999999999	50	FK	Not	Service ID number
AmountPaid	Integer	9999999999	50		Not	Amount Paid
PaymentMode	Varchar	Xxxxxxxxxxxx	50		Not	Payment Mode

Reception Admin						
Field Name	Data Type	Field Format	Field Size	Key	Nullability	Description
Receptionist_Id	Integer	9999999999	50	Not		Receptionist id number
Employee_id	Integer	9999999999	50	Not		Employee id number

Schedule						
Field Name	Data Type	Field Format	Field Size	Key	Nullability	Description
Schedule_ID	Integer	9999999999	32	PK	Not	Schedule id number
Date	Date	MM/DD/YYYY	10		Not	Scheduled date
Time	Time	hh:mm:ss	10		Not	Scheduled time

Services						
Field Name	Data Type	Field Format	Field Size	Key	Nullability	Description
Service_ID	Integer	9999999999	32	PK	Not	Service id number
Patient_ID	Integer	9999999999	32	FK	Not	Patient ID Number
Service_Type	VarChar	Xxxxxxxxxxxxxx	255			Service type requested
Service_description	VarChar	Xxxxxxxxxxxxxx	255			Service description

Table 2: Use Case Narrative

Use Case	Assist Doctors
Actor	Therapists
Goal in context	To assists doctors with their day to day task.
Trigger	Doctors will be needing assistance from therapist.
Pre condition	Doctors needs assistance.
Post condition	Therapists assisted Doctors with their day to day task.
Scenario	<ol style="list-style-type: none"> 1. Doctors needs assistance from therapists to perform his day to day task. 2. Therapist will assist Doctors.

Use Case	View Booking History
Actor	Patient, Doctors, Therapists or Reception Admin
Goal in context	Actors would like to view booking history of a patient.
Trigger	When one of the actors would like to view booking history of patient.
Pre condition	Patient needs to be login to the website.
Post condition	Actors successfully view patients booking history.
Scenario	<ol style="list-style-type: none"> 1. Patient will click on "Booking History" button. 2. System will display the "Booking History" page.

Use Case	Cancel Appointment
Actor	Patient, Doctors or Reception Admin
Goal in context	Appointment needs to be cancel.
Trigger	When either the patient or the Doctors need to cancel a patient's appointment.
Pre condition	Patient have an existing appointment.
Post condition	Actors successfully cancelled an appointment.
Scenario	<ol style="list-style-type: none"> 1. Patient, Doctor or Reception Admin will click on cancel appointment button. 2. System will receives the request for cancellation. 3. System accepts the cancellation request and will cancel the appointment in the system. 4. System will send an email to actors that appointment has been cancelled. 5. Actors will receive a confirmation email that appointment has been cancelled. 6. System will update schedule.

Use Case	Login
Actor	Patient
Goal in context	Patient wants to login to the website.
Trigger	When the patient wants to login.
Pre condition	The system will show the login page.
Post condition	Patient successfully login to the website.
Scenario	<ol style="list-style-type: none"> 1. The patient access the website. 2. The system shows the login page. 3. The patient enters required login credentials. 4. The patient clicks on login button. 5. The system receives the requests. 6. Login Successfully.

Use Case	Make Payment
Actor	Patient
Goal in context	Patient to make payment.
Trigger	Patient had avail the service and will make payment
Pre condition	Patient had avail a service
Post condition	Patients' payment is recorded
Scenario	<ol style="list-style-type: none"> 1. Patient had avail service/s from Happy Clinique. 2. Patient will pay for the service. 3. Reception Admin will accept the payment. 4. Reception Admin will record patients' payment in the system. 5. System saves the input.

Use Case	Manage Doctors Schedule
Actor	Reception Admin
Goal in context	To manage Doctors schedule.
Trigger	Changes in Doctors schedule.
Pre condition	Doctor is an employee in the clinique.
Post condition	Doctors schedule are managed.
Scenario	<ol style="list-style-type: none"> 1. Doctors needs to change their schedule. 2. Reception Admin in behalf of Doctors request can manage their schedule in the system. 3. Reception Admin will update Doctors schedule in system. 4. The system receives, accepts and update Doctors schedule. 5. System will display Doctors schedule.

Use Case	Manage patients appointment.
Actor	Doctors and Reception Admin
Goal in context	Actors will act as administrators who can manage patients appointment.
Trigger	When Doctor or Reception Admin needs to make changes on appointment.
Pre condition	Patient have an existing appointment.
Post condition	Patients appointment has been updated in the system.
Scenario	<ol style="list-style-type: none"> 1. Appointment needs to be change or cancel. 2. The Doctor and Reception Admin as administrator of the site will have the permission to manage the schedule on the site. 3. System receives/accepts request to change/cancel schedule. 4. System sends a confirmation email to patient, Doctors and Reception Admin about changes made in the schedule. 5. Patient, Doctors and Reception Admin will receive a confirmation email about changes made in the schedule.

Use Case	Manage patients record.
Actor	Doctors
Goal in context	To put in record patients medical history.
Trigger	Doctor needs to update patients medical history.
Pre condition	Patient have undergone dental or derma procedure.
Post condition	Patients record in the system is updated.
Scenario	<ol style="list-style-type: none"> 1. Patient have undergone dental or derma procedure. 2. Doctor will record any activity done with the patient in the system. 3. System will saves patients record.

Use Case	Manage Payments
Actor	Reception Admin
Goal in context	Reception Admin is in charge of accepting and recording payments.
Trigger	Reception Admin receives payment from patient.
Pre condition	Patient has a completed service done by the Doctors.
Post condition	Payment of patient has been recorded.
Scenario	<ol style="list-style-type: none"> 1. Patient have undergone any dental or derma procedure. 2. Patient pays for the service to the reception admin. 3. Reception Admin accepts the payment 4. Reception Admin records payment in the system. 5. System records the payment.

Use Case	Request Appointment
Actor	Patient
Goal in context	Patient wants to request an appointment.
Trigger	When patients wants to request an appointment.
Pre condition	Patient needs to be login to the website.
Post condition	Patient successfully submitted a request for an appointment.
Scenario	<ol style="list-style-type: none"> 1. Patient will click on "Book" button. 2. The system will show the request for appointment form. 3. Patient will fill up the form by selecting service, Doctor and schedule. 4. Patient will submit the form 4. System will display a message that patient's request has been submitted. 5. System will send an email with details regarding the appointment request. 6. Patient will receive a confirmation email that his request for an appointment has been acknowledge.

Use Case	Sign Up
Actor	Patient
Goal in context	Patient wants to sign up.
Trigger	When the patient wants to sign up.
Pre condition	The system will show the sign up form.
Post condition	Patient successfully signed up to the system.
Scenario	<ol style="list-style-type: none"> 1. The patient access the website. 2. The website will display the sign up button. 3. The patient select on sign up button. 4. The website will show the sign up page. 5. The patient fills up the sign up form. 6. The patient submits the form. 7. The system receives the form. 8. Patient confirms the registration. 9. Sign up successfully.

Use Case	View patients appointment
Actor	Therapists and Reception Admin
Goal in context	To give permission for Therapists and reception admin to view patients requested appointment.
Trigger	Reception Admin or therapists would need to view patients appointment.
Pre condition	Patient has a confirmed appointment.
Post condition	Therapists and Reception Admin is able to view patients appointment.
Scenario	<ol style="list-style-type: none"> 1. Therapist or reception admin needs to view patients appointment. 2. System will display patients appointment.

Table 3: Project Estimates

Staff	Stages							Total Time
	Planning	Analyzing	Designing	Developing	Testing	Implementin		
	(1 week)	(1 week)	(3 weeks)	(3 weeks)	(1 week)	(1 week)		
Project Manager	40.0 hours *	40.0 hours *	40.0 hours *	40.0 hours *	40.0 hours *	40.0 hours *	320 hours	
	1 week	1 week	1 week	3weeks	1week	1week		
Instructional Designer	40.0 hours *	40.0 hours *	40.0 hours *	40.0 hours *	40.0 hours *	40.0 hours *	360 hours	
	2week	1 week	1 week	3weeks	1week	1week		
Subject Matter Expert			40.0 hours *				120 hours	
			3weeks					
Graphic Designer			40.0 hours *	40.0 hours *	40.0 hours *	40.0 hours *	320 hours	
			3weeks	3weeks	1 week	1 week		
System Programmer			40.0 hours *	40.0 hours *	40.0 hours *	40.0 hours *	280 hours	
			2weeks	3weeks	1week	1week		
Writer/Editor			40.0 hours *	40.0 hours	40.0 hours		160 hours	
			2weeks	1week	1week			
Reviewer			40.0 hours		40.0 hours *		80 hours	
			1week		1week			
Total Time	120 hours	80 hours	520 hours	520 hours	200 hours	120 hours	1640 hours	

Table 4: Event Table

EVENT TABLE					
EVENT	TRIGGER	SOURCE	USE CASE	RESPONSE	DESTINATION
Patient signs up	Patient will sign up	Patient	Patient creates an account	Patient details	System
Patient wants to book appointment	Patient views clinic services	Website	Patient selects schedule/employee/date/time	Appointment Request	System/Employee
Patient receives confirmed schedule	Employee confirms schedule	Employee	Patient receives appointment confirmation	Patient informed of confirmed appointment	System/Patient
Employee receives appointment request	Patient submits appointment request	System/Employee	Employee confirms appointment	System to send patient appointment confirmation	Patient
Confirmed Appointment Cancellation	Employee/Patient unavailable for a confirmed appointment	Employee/Patient	Employee/Patient cancels appointment	Appointment open for other patients/Appointment blocked by doctor	System
In-patient clinic wants to book another appointment	follow-up appointment needed	Employee	Receptionist to book in behalf of Patient	Appointment scheduled and confirmed	System
Patient wants to view his booking history	user signs up/ logs in	System	Patient views status of previous/upcoming appointments	Patient views recovrds	Website

Table 5: Activity List

Activity #	Activity Name	Activity Name Description	# of Days	Start Date	Dependency	Milestone
1	Planning	Planning on Project Development	1	06/07/17		Final decision of the project
2	Analysis	Project Requirements Analysis	1	06/07/17	SS	Final analysis
2.1	Analysis Documentation	WBS/ Gantt Chart/ Activity List	1	6/21/17	1FS + 5 day lag	
2.2	Analysis	Project Documents	13	06/14/17	5 day lag	Final documents
3	Design	System Architecture	5	06/14/17	FS	Detailed design
4	Development	System Development	20	06/14/17	lag	Software code
4.1	GUI	Develop GUI	10	06/14/17	5 day lag	
4.2	Code	Code subroutine	20	06/14/17	lag	Prototype
4.3	Functions	System Functions Development	25		5 day lag	Final working prototype
5	Online requirements	Wiki	2	06/14/17	3 day lag	Final Online Documents

5.1	Online requirements	Microsoft Planner	2	06/14/17	3 day lag	Final Online Documents
5.2	Online requirements	GitHub	0	06/14/17	1 day lag	Final Online Documents

Legend:

- FS = The specific task must finish prior to starting the identified task
- SS = Two identified tasks start at the same time, but are not linked to finish at the same time.
- FF = Two identified tasks finish at the same time, but are not linked to start at the same time.
- Blank = Task has no dependency
- Lag = Additional days can be added for reserve to ensure project stays on schedule.

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Appendix A: Glossary

- GHz - means 1 billion cycles per second and when it talks about 2.4 GHz processor, it is usually mean that this is the maximum frequency of the clock to each core.
- RAM - Random Access Memory is the memory or information storage in a computer that is used to store running programs and data for the programs.
- HTTPS - Hypertext Transport Protocol Secure. HTTPS is the same thing as HTTP, but uses a secure socket layer (SSL) for security purposes.
- DrDentAssist – System name/Project name.
- Happy Clinique – Name of the company.
- Laravel – web application framework with expressive, elegant syntax.

One Page Curriculum Vitae

For

DrDentAssist

Version 1.0 approved

Prepared by:

**Chloe Tañada
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Reimarie Princess Quirante**

Asia Pacific College

August 17, 2017, 2017

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EDUCATION

Tertiary	Asia Pacific College, Makati City, Philippines Bachelor of Science in Information Technology (BSIT) September 2012 – Present
	Polytechnic University of the Philippines Bachelor of Science in Banking and Finance Graduated May 2000
Secondary	Sacred Heart Academy Sta. Maria, Bulacan 1994-1996
Elementary	Sacred Heart Academy Sta. Maria, Bulacan 1988-1994

Skills

- Remedy, Lynx, OTRS
- Completed ITIL V3 training
- MySQL, DB2, SQL Server
- Java and Microsoft Visual C#
- Red Hat/CentOS and Ubuntu Enterprise Linux
- Advanced knowledge in MS Applications, VDI Infrastructure, Active Directory
- Management of Windows Server.
- VMware management
- SCCM 2007 and 2012

REFERENCES

Available upon request.

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COMPUTER COMPETENCIES

HARD WARE :

PC assembly and troubleshooting
Operating System and Software Installation
Network troubleshooting, monitoring and maintenance (CISCO, Juniper, UNIX based servers)
Server Installation and Administration: Windows Server 2012 / Red Hat Linux

SOFTWARE :

DATABASE: MS SQL, MySQL, IBM DB2

APPLICATION AND WEB: HTML/JavaScript/CSS, Java(JSF, J2EE, Android Programming), Visual Basic.Net, PHP

Education

Oct 2012 – present	Asia Pacific College	Makati City
▪ Bachelor of Science In Information Technology		
1998–2004	Polytechnic University of the Philippines	Sta. Mesa, Manila
▪ Bachelor of Science in Computer Engineering		
▪ DOST-SEI Scholar		
1994–1998	General de Jesus College	San Isidro, Nueva Ecija
▪ Among the top 5% of the graduating class		
1993–1994	San Mariano West Elementary School	San Antonio, Nueva Ecija
▪ Valedictorian, Class '94		
1992–1993	General Licerio Geronimo Elementary School	Sampaloc, Manila
1991–1992	Karangalan Village, Elementary School	Cainta, Rizal
1988–1991	St. Paul School	San Antonio, Nueva Ecija

References

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Tertiary	Asia Pacific College Makati City, Philippines Bachelor of Science in Information Technology (BSIT) June 2014 – Present
Secondary	Sta. Clara Parish School Pasay City, Philippines 2010 – 2014
Elementary	St. Gabriel Academy Parañaque City, Philippines 2003 - 2010

SKILLS

Hardware:

- PC assembly and troubleshooting
- Operating System and Software Installation (Windows, Red Hat Linux, CentOS)
- Network troubleshooting, monitoring and maintenance (CISCO)
- Server Installation and Administration: DNS Server

Software:

Database:

- MS SQL
- MySQL
- IBM DB2

Application and Web:

- HTML/CSS/PHP/
- Java (JSP, Servlet, Android Programming, Enterprise Java)
- Advanced knowledge in Microsoft Office 2016 Applications
- Web Application Security

REFERENCES

Available upon request.

The End.