**UNIVERSIDAD DE LAS FUERZAS ARMADAS “ESPE”**

**Group Name:** Jsons

**Members:** Ruben Dario Benavides Macias **NRC:** 9642

Adonny Mateo Calero Argüello

Pablo Esteban Carrera Quinde

Yeshua Amador Chiliquinga Amaya

**System’s requirements**

**1. Introduction**

This document is a Software Requirements Specification (ERS) for the application “Odontoapp”. The content has been created through the collaboration of the members mentioned. This specification has been structured inspired by the guidelines given by the standard "IEEE Recommended Practice for Software Requirements Specification ANSI/IEEE 830 1998".

**1.1. Purpose**

The objective of carrying out the specification is to clearly and precisely define all the functionalities and restrictions of the system to be built. The document is addressed to the system development team. This document will be reviewed by the developer user group and a record of document versions will be kept on the Git-hub platform, until it is approved by the group involved. Once approved, it will serve as a basis for the development team to build the new system.

**1.2. Scope**

OdontoApp is a platform that facilitates dental services to customers by automating various processes, with the following benefits:

- A clinical history that contains necessary medical information that assists both the dentist and the patient.

- Quick and efficient appointment scheduling.

- Price lists for each available service.

- A guarantee of user information protection and security through a username and password system.

However, the current limitations of the system are:

- It does not accept credit card payments, only in-person payments.

- It does not have access to mobile or web platforms.

**1.3. Definitions, Acronyms, and Abbreviations**

**1.4. References**

**1.5. Overview**

**2. Overall Description**

**2.1. Product Perspective**

The system will have access to a clinical history that will make available the information of each patient who has access and has registered in the application, in order to execute certain actions. The system is not related to a larger product, it is completely independent.

**2.2. Product Functions**

In general terms, the application will manage patient information in the following way: through the management of schedules for medical attention, displaying availability according to the presented schedules, ensuring proper functionality. The pricing assignment will be linked to the service the patient requires, and the corresponding price list will be shown. The application will include a billing system, which will be linked to the pricing assignment function. Then, through the information that details the patient's medical status, the respective registration will be proceeded for the attention at the time of the consultation.

**2.3. User Characteristics**

The version will include a user-friendly and easy-to-understand interface for the patient, demonstrating the interrelation that will be part of the care with everyday use in such a way that it will not generate problems for familiarizing oneself with the application. The interface will be intuitive and friendly to the patient.

**2.4. Constraints**

* The system will not have a mobile application or web platform.
* Credit card payments will not be accepted.
* The system will only be developed in Java.
* The development process will involve the use of GitHub.
* Basic object-oriented programming, and command line management.

**2.5. Assumptions and Dependencies**

**2.5.1 Assumptions**

The functionality of the application is expected under the presumption that the requirements mentioned in this document will not be drastically altered since the goals and impact of the application could be directly affected. In the event that changes are required, the OdontoApp development team will agree on any necessary modifications to the system.

**2.5.2 Dependencies**

The application will function autonomously since there is no observed dependence on external applications and/or systems. The system will correspond between the client and the application, and therefore the effectiveness of the system will be directly related to the connections between the devices and the devices on which the application is used.

**3. Specific Requirements**

**3.0.1. Functional Requirements**

**3.0.1.1. User register**

**RF1.** El sistema permitirá registrar al usuario por consola, creando un usuario y una contraseña.

**RF2.** El sistema deberá permitir toda combinación de caracteres cuando se le pida ingresar el usuario, a excepción de datos numéricos, en el caso de hacerlo se señalará por consola un mensaje de error y permitirá volver a intentarlo.

**RF3.** El sistema usará para la contraseña un sistema de pines de seguridad con un máximo de 6 dígitos, en el caso de que el usuario escriba caracteres no numéricos, mostrará por consola un error y le pedirá que vuelva a intentarlo.

**RF4.** Si los usuarios y contraseñas ya han sido registrados previamente, el sistema indicará el respectivo mensaje indicando que intente con uno diferente.

**3.0.1.2. User login**

**RF5.** El sistema permitirá iniciar sesión al usuario por consola, introduciendo su ya creado usuario y contraseña. De no estar registrado el usuario (pues será el primer dato a solicitar), se mostrará por consola informando que ese usuario no existe y que intente de nuevo.

**RF6.** El sistema mostrará por consola si la contraseña es incorrecta y que intente de nuevo.

**3.0.1.3. Registro de información médica y necesaria**

**RF7.** El sistema permitirá ingresar enfermedades congénitas por consola, solamente caracteres, de ingresar datos numéricos, el sistema mostrará que ingrese solo caracteres y permitirá intentar de nuevo

**3.0.2. Development Requirements**

El ciclo de vida elegido para la implementación de OdontoApp es el prototipo evolutivo de manera que se puedan efectuar cambios a futuro.

**3.0.3. Software Requirements**

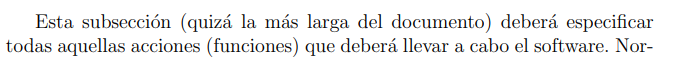
De momento, no se limitará a un software específico para hacer uso del aplicativo.

**3.0.4. Performance Requirements**

El número de pacientes para los que servirá la aplicación de forma simultánea es de 20 pacientes con un tiempo de respuesta aproximado de 30 segundos.

**3.1. External Interfaces**

**3.2. Functions**

****

**3.3. Performance Requirements**

**3.4. Logical Database Requirements**

**3.5. Design Constraints**

**3.6. Software System Quality Attributes**

**3.7. Object Oriented Models**

**4. Appendices**

**5. Index**

**System in a dental office, so that users can access to register and thus schedule an appointment and choose the available prices**.

User Story Name: Schedule Dental Appointments

Description: Schedule appointments with the Dentist through the program, so that the user can efficiently book and plan it’s time.

User: Patient who needs to schedule an appointment with the Dentist, such as a doctor or therapist.

Business Value: Allows users to schedule appointments through the program, it reduces the need for phone calls and emails to schedule appointments.

Acceptance Criteria:

- The user should be able to

Search for appointments by time, cost, or location.

View available schedules of service providers.

Select a schedule and confirm the appointment.

Receive a confirmation of the scheduled appointment and a reminder before the appointment date.

Related User Stories:

- As a service provider, I want to be able to accept or reject appointment requests, so that I can efficiently manage my schedule.

Notes and Comments: It is important to ensure that the contact information for the service provider is accurate and up-to-date, to ensure that users can arrive on time for their scheduled appointment. Additionally, it is important to provide users with a simple process for canceling or rescheduling appointments, if necessary.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Encuesta:

Respecto a lo que quiere el cliente:

¿Cuántos servicios odontológicos tienes y cuál es el precio de cada uno?

Costos y Servicios:

-Profilaxis ( Limpieza dental): $25

-Profilaxis + Fluorización (especialmente para niños): $20

-Calzas

-Restauraciones Simples: $20

-Restauración Complejas: $25

(Las restauraciones pueden ser con resina o amalgamas)

-Restauraciones para niños ( calzas para niños):$15

-Exodoncias( extracción de una pieza dentaria): $20

-Exodoncia complicada: $30

-Endodoncias( Extracción del nervio dental)

Tratamiento de un conducto(incisivos o dientes de adelante): $60

Tratamiento de dos conductos (premolares): $80

Tratamiento de tres conductos (Molares): $100

Horarios:

¿Como odontóloga independiente que horarios ofreces a tus pacientes?

Trabajos de lunes a viernes de 11 a 4 de la tarde, también hay exclusiones como el sábado pero con previa cita.

Facturación: ()

Con lo que el Servidor cuenta:

Historias clínicas:

¿Con bastante datos que manejas en tu profesión, qué necesitas saber antes de atender a tu paciente?

(La historia clínica es un documento médico legal en el cual se registran todos los datos intrínsecos en la relación médico – paciente. En este archivo se expresan cronológicamente los sucesos en el cual el paciente inicia el padecimiento de la enfermedad y condiciones personales del mismo, desde hábitos saludables hasta antecedentes familiares. La historia clínica es un documento importante para el diagnóstico y tratamiento de enfermedades, ya que permite al médico conocer la evolución de la enfermedad y los tratamientos previos que ha recibido el paciente.)

Variables que se tiene:

1. Nombre
2. Edad
3. Peso
4. Altura
5. Síntomas de dolencia
6. Teléfono
7. Enfermedades sistémicas ( si tiene enfermedades del corazón, presión alta, etc)
8. Tratamiento de paciente
9. Fecha de inicio del tratamiento
10. Fecha de fin del tratamiento