Epoka University

Faculty of Economics and Administrative Sciences

Business Informatics

CEN302 -- Software Engineering

E-DENT

Requirements Specification

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1. Executive Summary

1.1 Project Overview

Describe this project or product and its intended audience, or provide a link or reference to the project charter.

Automatization and the decrement of the human intervention is basically the main course all businesses are following, to succeed in an environment where the customer satisfaction is crucial. This model, businesses are following, provides fast service, transparency, easy access by the customers and as a result more successful business and more loyal clients who are satisfied with the service.

A system for a dental clinic is what we are going to establish. Having a system to organize all the services and customers, helps the clinic to easier manage the operations, schedules, keep track of the patients cards etc. in other words be more efficient. Everyone who wants to receive a service from this dental clinic can book his appointment and the type of service needed, based on the available schedules. Another user of the system is the service providers, dentists. They can have their profile where will be stored all the patients' cards under their care. And the third user is the admin who will add or delete dentists', patients', and deal with inventory. Also there will be a user for receptionist who will deal with accounts keep track of the schedules and notify the patients in case of any change to the schedule or other operations.

1.2 Purpose and Scope of this Specification

Our purpose as the developers of this software is to improve customer experience and facilitate operations inside and outside of the dental clinic through E-DENT (Web Application). This software will provide very practical and simple solutions to the issues that the owner, patients, doctors and receptionists have addressed. Not only will E-DENT make it easier for potential patients to approach the clinic, but also for the clinic to be closer to the patients in case of any complication. Shortening the distance by creating a well-balanced frequent interaction between each of our users, we aim to facilitate each process from the attraction of the patient to the conversion in a promoter. The software is developed to be used by one dental clinic since we will customize it according to our client's requests and budget.

2. Product/Service Description

2.1 Product Context

E-Dent is a software which is designed to manage and facilitate the activities of a dental clinic. This product is a flexible and effective solution of managing jobs by converting medical and inventory data on paper into electronic files.
The software will be used by every employee of the clinic, but also by loyal and potential patients. Main goal of this platform is to enhance communication between staff and clients and help the staff coordinate their job and schedules in order to provide a satisfying user

experience. Our software will be accessed by four users: patients, receptionist, dentists and admin/manager. The software aims to facilitate every step of clinic job from booking from clients, to booking approvals, tracking dentists' timetables, generating patients' records, ordering from dental depots.

The software will also serve as a website for potential customers who can navigate and see services and prices offered, experiences and results of other patients' from esthetic and surgical intervention, and contact for any information.

2.2 User Characteristics

The users of the system are :

1. patients: anyone who wants to receive a service by this clinic can:
    - register to the system to book appointments specifying the service based on the list (also prices) provided in the system ,
    - have personal dental record section with previous appointments
    - view different experiences that other clients had with this dental clinic and the dentists to whom they will trust their oral health
2. Dentists: Every dentist in the clinic will:
    - be registered in the system
    - keep track of the patients he has under care
    - communicate and advise them when they have a concern
    - view his schedules and appointments assigned to him
3. Receptionist: as a person who deals with the schedules and appointments he will:
    - have a general calendar with appointments organized in the system and directly updated by the patients actions
    - assign dentists for each appointment taking into consideration their workload
    - view each dentists' schedules
    - communicate it with the patient using the contact information in the patient records, in case of any changes in schedules
    - keep track of the payment completion of the services provided, indicated by the Paid/Not Paid status for each patient.
    - Register the patients in the system if they directly request service in the clinic
4. Admin: as the main actor of the system will:
    - diss/approve the registration of the dentists
    - be able to change the list of the services according to the decisions made for expanding/shrinking the services or changing the prices
    - be in charge of the dentists' salary records and maintenance
    - update the inventory of the dental materials, and ask for refurnishment when a specific amount of specific material is reached

2.3 Assumptions

The list of assumptions :

- It is assumed that each user has limited working proficiency in English.
- It is assumed that each patient in cases when is registered by the receptionist gives the correct personal information and the approval for the account registration.
- It is assumed that the admin account is created by the system developers and given to the clinic's owner/ IT manager.
- It is assumed that the clinic and the patient own smart devices and have internet connection to be able to access the system.

- It is assumed that the system is build in accordance with the Albanian law "LIGJ Nr.9887 PËR MBROJTJEN E TË DHËNAVE PERSONALE"
- It is assumed that every patient should be limited to watching only his booking and not interfere with other patients.

2.4 Constraints

List of constraints:
- The internet connection when absent or not powerful enough can be a constraint for the fully functioning system.
- It is required that every device should be equipped with browser to run the application
- Budget of the client.
- MySQL will be used for fetching data from database which may not be very efficient for large database.
- For very large databases the management efficiency by the SQL my fade.
- The system will only use the data contained in the existing corporate database.
- The system shall be available 99.99% of the time for any 24-hour period.

2.5 Dependencies

The list of dependencies that affect the requirements:

- The willingness of patients to use the system and not to request information manually from the receptionist
- the patients and clinic's staff access to the internet
- Depends on successful communication with related dental depots. This is achieved by maintaining an accurate inventory, by generating weekly reports on the quantity of used and available products.