Specification of software requirements

Draft: del
Review

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Instructions for using this format

This format is a standard template for software requirements documents.

It is based on and complies with the IEEE Std 830-1998 standard.

The sections that are not considered applicable to the system described may justifiably be indicated as not applicable (NA).

Notes:
Texts in blue are indications that must be eliminated and, where appropriate, replaced by the contents described in each section.

Texts in square brackets such as "aquí"Allow the direct inclusion of text with the appropriate color and style for the section, when clicking on them with the mouse pointer.

The titles and subtitles of each section are defined as MS Word styles, so that their consecutive numbering is automatically generated according to the "Title1, Title2 and Title3" styles.

The indentation of the texts within each section is automatically generated when you press Enter at the end of the title line. (Styles Normal indented1, Normal indented 2 and Normal indented 3).

The document index is a table of contents that MS Word updates based on the document titles.
Once your writing is finished, Word should be instructed to update all its content to reflect the final content.

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Revision history

Date	Review	Description	Author

Document validated by the parties on date:

For the client	By the supplying company
Signed. Mr. / Mrs.	Signed. Mr / Mrs

Content

1 Introduction

1.1 Purpose

Serve as a key instrument to plan patient care and contribute so that this is continued a means of communication between the doctor and other professionals such as the nurse so that they contribute to patient care by testing the documented evidence through the system during the course of the disease and treatment of the patient among other aspects.

1.2 Scope

- The system is made for a single health entity with data from the medical doctor, nurse and patient records of the health entity.

- The system to be developed will cover only in the area of medical records data of medical personnel among others, in the long term it could be extended to some other intities in the sector where we are applying the system
- With the execution of this project, the use and dissemination of the system is intended to reach various medical users, patients, and members of various medical health entities for the organizational context of medical records. The idea is that users use the system, covering aspects that are required in an entity with computerized management.

1.3 Involved personnel

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Role	Programmer
Professional category	College student
Responsibilities	aquí

Contact information	aquí
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1.4 Definitions, acronyms and abbreviations

- Program: It is a sequence of instructions, written to perform a specific task on a computer.
- Hospital It is an establishment designed for the care and assistance to patients through medical, nursing, auxiliary and technical service personnel 24 hours a day, 365 days a year.

- Physician: A professional who practices medicine and who tries to maintain and restore human health through the study, diagnosis, and treatment of the patient's illness or injury.

- Nurse: Person whose job is to assist or care for the sick, wounded or injured under the prescriptions of a doctor, or to help the doctor or surgeon

- Surgeon: Treat diseases, injuries and deformities through invasive methods, such as manual manipulation or through the use of instruments and devices

- Medical diagnosis: it is the procedure by which the health professional identifies a disease or the patient's condition with the help of various tools that allow defining their clinical picture.

- Medical History: It is a legal document of the medical branch that arises from the contact between a patient and a health professional, where all the relevant information about the patient's health is collected, so that correct care can be offered and personalized.

- Code Qr:It is a square two-dimensional barcode that can store the encoded data. Most of the time the data is a link to a website

Abbreviations

- Doctor = Dr /Dra

1.5 References

Reference	Title	Route	Date	Author

1.6 Summary

2 General description

2.1 Product perspective

The "project name" system will be a product designed to work in health entities to prevent mistakes with respect to the diagnoses given, using the detection of QR codes which allows greater effectiveness when searching the patient's clinical history, it will also work independently therefore it will not interact with other systems.

2.2 Product functionality

The "product name" system will allow the following functions to be performed:

a) Patient administration: The doctor or nurse will be able to manage the patients (add, modify, delete, search, list).
b) Coordination of medical examinations: The doctor in charge of the patient will request the necessary examinations to make the corresponding diagnosis to the patient.
c) Proportion of Information: The doctor will issue the corresponding diagnosis and their respective medical prescription to the patient, said data will be updated in the patient's clinical history.
d) Navigation: Process by which the doctor or nurse may use the "system name".

2.3 User characteristics

The system "system name" will contain 2 types of users that will interact and administer it: Doctor, Nurse.(Jhonatan :v)

Type of user	aquí
Training	aquí
Skills	aquí
Activities	aquí

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2.4 Restrictions

2.4.1 Hardware limitations

For this application you will need a cell phone which has a camera in optimal condition to be able to detect the QR code.

2.4.2 Control functions

The system must control the permissions that each user has for their accessibility in a correct way, so that they can access the information that corresponds to them according to their role.

2.4.2 Language requirements

All the material that is made for the user and the application must be in Spanish.

2.4.3 Application credibility

To guarantee good credibility, the system must be subjected to a series of tests to establish that it is in accordance with the requirements that are reflected in the document in terms of data consistency and application performance, such as response times.

2.4.4 Security considerations

Each user must be authenticated and their access verified by a single Terminal for their respective work according to what their role specifies

2.5 Assumptions and dependencies

Adequate training must be carried out according to what each user is going to do. Your training will be done at the time it is necessary and to the indicated person.

Debe realizarse una capacitación adecuada y acorde a lo que cada usuario va a realizar. Su capacitación se hará en el momento que sea necesaria y a las persona indicada.
(Jhonatan :v)

2.6 Predictable evolution of the system

Some of the implementations that will be made in the future on our system; It is according to how it can evolve over time, for example we will have a QR code to access specific medicines and in the same way for the entry and exit of authorized personnel.

3 Specific requirements

Requirement number	8		
Requirement name	diagnostic optimization system		
Type	x Requirement	☐ Restriction	
Requirement source	depending on who you want to manage the medical center		
Requirement priority	x High / Essential	☐ Average / Desired	☐ Low / Optional

3.1 Common interface requirements

3.1.1 User interfaces

The specific description for the system is to create a QR code in the virtual platform of the clinical history system of the hospital in question, which

requires immediate access through a QR code scanner, it will be 3x3 size, and with it the entire clinical history, both patient, doctor and ,or nurse. (SAMMY)

3.1.2 Hardware interfaces

An interface is specified by means of tablets for each treating doctor and nurse for each patient, which will be mobile in all cases.

3.1.3 Software interfaces

The “name of the system” system will be a product designed to work in WEB environments,
that used its use in a decentralized way, in addition to working in a
independent therefore it will not interact with other systems

3.1.4 Communication interfaces

There is communication with the medical center's own database, with which it will connect with our system, for good administration and organization.

3.2 Functional requirements

The SIS-WEB system will allow to perform the following functions:

a. User Administration: The system administrator can manage
users (add, modify, delete, search, list).
b. Coordination of Medical Procedures: The coordinator of medical procedures will plan resources necessary for the intervention, such as: operating room reserves, medical resources and resources in general. The speaker of the operating room, will be responsible for the publication of information regarding the himself and the postoperative care of each patient in their respective ward.
c. Publication of Information: Anyone who can access the system will update the
general information of the platform at all times.
d. Admission: Process that will allow a doctor or nurse to enter the patient's data for hospitalization.
e. Navigation: Process by which an authorized person may use the "system name" system.

3.3 Non-functional requirements

3.3.1 Performance requirements

It is planned that there are information transactions all the time every second, the limit of people accessing the application is more than 1000 people, which is reflected in 95% of the complete transactions in 1 second.

3.3.2 Security

- In the aspect of security in the registry of files with activity "logs" of activity, we can work with the free version of EVENTLOGANALYZER that allows us to track when someone is trying to enter our server or system or steal confidential data (doctor, patients). etc., providing a central repository for the analysis of events that occur in our system due to the fact that it has several specific functions such as file integrity monitoring that centrally tracks all changes and generates alerts in real time when files and folders are created, accessed, viewed, deleted, modified, renamed, etc

3.3.3 Reliability

It is expected that the system does not crash, it refers to a premeditated and solved initiation in progress, in addition to incidents that we cannot prevent in the future.

3.3.4 Availability

The software will be available at all times and all the time, since it is a system that registers entry, diagnosis, doctor treating and leaving patients.

3.3.5 Maintainability

Regarding maintenance, we will work in some stages depending on the time our system is working, first of all, we will start with preventive maintenance to avoid possible problems (safety, operability, or functionality, etc.) that may arise in the future, the latter being the case. If we present problems, we will enter into a corrective maintenance that consists of the review and correction of security, stability, operability or errors in the code and finally, if the entity requires it, we would enter into a perfect maintenance that users require to have new functionalities.

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Regarding who should carry out the maintenance, it will be the group in charge called FailOverFlow who are in charge of said system and regarding the maintenance time, a statistic will be kept, we will start weekly and if there are no errors during the activation of the system we will go monthly until we get to review it every six months.

3.3.6 Portability

It is estimated that our system is codified in programmable language to be able to synchronize according to the operating system that each medical center manages, since a server with existing databases and operating systems can be adapted.

3.4 Other requirements

The legal requirements of the medical center are needed and that the head of the same, will accept or deny the activation of the system in his medical center.