Student:

Alejandro Prado Lopez

Assignment:

Administración de la configuración del software

Homework:

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Career:

Maestría en Ingeniería de Software

Professor:

Dr. Omar Ali Zatarain Duran

Facial Paralysis Treatment Management System

Description

The web application is designed to assist healthcare professionals in managing and monitoring the rehabilitation of patients with facial paralysis. The platform enables the creation of patient profiles, where professionals can input and track patient information.
It allows the development of personalized routines for each patient's needs.

Main features:

- **Patient Profiles:** Creation and management of profiles. Storing relevant information like routine's duration time, patient' progress, patient's images, professional's notes, and all related information.
- **Custom Routine Creation:** Design of routines focused on each patient's needs.
- **Routine Assignment:** The professional can assign a specific routine to a patient.
- **Progress Tracking:** Through the information got from the routines the professional can track the progress of the patient in each session.
- **Dashboard:** The professional has a view of each patient's progress and the main focused information.

This software is just a part of a complex system that includes a mobile application and cloud API.

Functional Requirements

1. **Authentication**
    - Log in into the application
2. **Patient Profile Management**
    - The system must allow professionals to create and manage patient profiles.
    - Each patient profile should store relevant information such as routine's duration time, personal details, progress reports, images, and professional's notes.
3. **Custom Routine Creation**
    - Healthcare professionals must be able to design and create custom rehabilitation routines based on the patient's specific needs.
    - The system must allow professionals to update and modify routines as needed.
4. **Routine Assignment**
    - The system should allow professionals to assign specific rehabilitation routines to individual patients.
5. **Progress Tracking**
    - The system must track the patient's progress by storing and analyzing data from each rehabilitation session.
    - Progress reports should be generated based on patient activities, and these reports should be accessible by professionals through the web application.
6. **Dashboard**
    - A dashboard must be available for healthcare professionals, providing an overview of patient profiles, progress reports, and other key information in a user-friendly interface.
    - The dashboard must display high-level patient progress summaries and detailed individual reports.

Non-Functional Requirements

1. **Security**
    - Data encryption must be used for both data at rest and data in transit.
    - The system must implement user authentication and role-based access control to restrict access to sensitive information.
2. **Scalability**
    - The system must be able to handle increasing amounts of patient data.

3. **Performance**
    - The system must respond to user interactions (e.g., loading patient profiles, assigning routines, and updating progress) within an acceptable time frame (less than 4 seconds for most actions).
    - Data retrieval and processing should be optimized to ensure smooth operation for healthcare professionals.
4. **Usability**
    - The system interface must be intuitive and easy to use for healthcare professionals, ensuring minimal training is required.
    - Information should be presented clearly, with key patient information and progress easily accessible from the dashboard.
5. **Reliability and Availability**
    - The system must be available 99.9% of the time, ensuring minimal downtime for healthcare professionals using the platform.
    - Backup mechanisms should be in place to prevent data loss in case of system failure.
6. **Compatibility**
    - The web application must be compatible with all major web browsers
7. **Maintainability**
    - The architecture should support easy integration with future modules or updates in the mobile application or cloud API.
8. **Data Consistency and Integrity**
    - The system must ensure that data is consistently updated across all platforms (web, mobile, cloud) to avoid any discrepancies in patient progress and routines.

Budget

The budget for this project is $200,000

Team

- Junior Developer, Salary $12,000 monthly
- Mid Developer, Salary $25,000 monthly
- Project Manager, base Salary $
- Tester $c

Deadlines

first version: **December 2nd, 2024**
Second versión: **January 6th, 2024**
Last versión: **January 27th, 2024**