

## **DESIGN DOCUMENT OF OUR SYSTEM: WHY WE HAVE DONE THIS**

We decided to design a database dedicated to healthcare, more specific to hospital life and the treatment of the information they must handle.

Medical databases serve a critical function, but we have just focused on the administration part. The healthcare system generates data that require handling. A patient's life depends on this information, and it is, therefore, important to provide the information in the shortest time possible.

Every time a patient visits a hospital, a lot of data needs to be collected. The patient may require seeing different doctors, establish diagnosis, procedures, drug prescriptions or any other intervention, and needs to be on record. In our case, we have decided to focus on surgeries, one of the most critical parts of the hospital. The user that is manipulating the data would like for the database to be easier to use; so, we have designed it to be simple and intuitive.

Our first thought for designing the database was the aim of making the life easier for the workers of an hospital, so they just have to focus on what is really the important part of their job, save lives. In the chaotic life of the hospital, the managing of the operating rooms we thought would be an interesting part to take care of.

All the operating rooms must be registered in the database. For each operation, an operating room will be associated with it, and we also link it with the surgeons and nurses that are going to assist to that surgery, also the patient who is going to take the surgery. Putting all information together it will be easier for anyone who looks at it, to make a clearer schedule in their heads. It enables for the rest of the worker, which operations are going to be performed, which surgeons and nurses are available at a specific time, in case they are needed, or in case they are in an operation, the rest can look for them in the exact place. This also is useful in case of emergencies; it enables to see again the professionals who are occupied and the operating rooms that are free for performing the emergency surgery.

We also thought of the patient, in case he/she wants to know more details about the operation/s that must take, so we enable a part where the patient can log in and see that information without having to call the hospital or his/her doctor for that. We are saving time for the worker with this implementation.

To avoid misunderstandings, all the data will be manipulated by the authorized personal, we called them administrators; but despite that the surgeons and nurses can log in, to check if their personal information in the database is the correct one, and the important part, visualize their agenda anytime, anywhere without having to ask to a superior.

With that we achieve a more centralized and secure hospital. All the data we want can be stored in the database and we can have access to all of it by just several clicks without taking care of internal details. It is saver time for the hospital, and an extremely useful tool for scheduling and organizing the performing surgeries in a hospital, our main purpose.