

LAB ASSIGNMENT-1

GROUP-5

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HOSPITAL MANAGEMENT SYSTEM

Aim: To define the Purpose and Requirement of the Project assign to your group

The need of Hospital Management System is defined-

To understand we can divide the topic into 3 parts, such as:

- ✓ Hospital
- ✓ Management
- ✓ System

Hospital is a kind of institution or center that provides the public with the medical or surgical treatments and moreover adopting a longer-term perspective beyond saving lives to enhance the quality of life of patients.

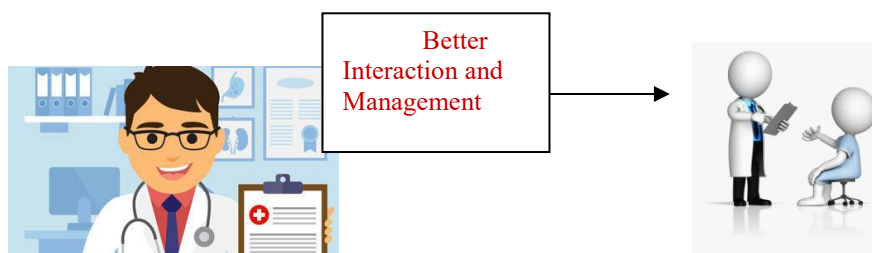
Management is a process of dealing with situations or people.

System is like an interconnection between the people and the infrastructure to keep everything organized.

We need the hospital management system to keep all the processes within the organization intact, interconnected and organized. No one would like to enter or visit an organization with a chaotic surroundings, therefore they have to be well managed and organized. If we consider an emergency case, the action has to be speedy and early as compared to other cases. Also we might look into a situation where we have different cases such as one might be a surgical one and one might be a physiological one. Therefore the dependencies change for the patients and staff. The staff has to look after the records, requirements and the medications. These things will be thoroughly explained in the use cases.

Need: Kashish Srivastava

The core foundation of a Hospital Management System is to adapt a Digitized system rather than manual work system where the motive of each and every purpose is to reduce the enormous costs, making the availability of every facility as the ultimate goal. A hospital has many areas where management can make it very convenient for the users as well as for the staff to maintain like the lab tests and medical records, information of the staff and doctors etc. The management system is basically used to make everything feasible and accessible at the same moment and this is the need of the hour too. A hospital management system makes it easy to organize the records at a particular kind of database where everything is available to the users with different views for different categories. This system can be used to reshape the requirements and make it convenient to maintain the information of each and every patient, doctor and other staff such that everything is easily accessible. The use of this system is to improvise the system of record making of patients, doctors, the various medical records and the reduction of the costs of the various processes. There are various modules in management systems which are implemented in order to make the work fully organized.



Management:



Medicines



Staff



Patient records



Finance



Lab reports

- This system aids in the management system as it helps to follow a record for the suitable diet for patients by maintaining a record for the same.

- Duplicate records and other human errors are removed which ensures the correct storage of the data in the system.
- The advancements in the technologies make it even more enhanced and up to the mark as updating make the tasks more organized.
- The level of interaction between the doctors, patients, nurses and the staff increases.
- Safety, integrity and confidentiality are truly maintained in a management system.
- It enhances the facilities of the hospital.
- Finance is also maintained in an organized way due to the hospital management system.
- The pharmaceutical sector is also managed using this system and the patients can be given the medicines by the same method.
- It helps to curd the human errors that occur while writing the various records on papers.
- The major expenses are a bit reduced using this system as everything is maintained on servers.

Use: Kashish Arora

The following features are the requirements that this Hospital Management System satisfies: -

- **Work Scheduling** - Assigning nurses to doctors and doctors to patients
- **Admissions** - Admitting patients, assigning the patients to appropriate wards
- **Patient Care** - Monitoring patients while they are in the hospital
- **Surgery Management** - Planning and organizing the work that surgeons and nurses perform in the Operating Rooms
- **Ward Management** - Planning and coordinating the management of wards and room.
- **Waiting list** - Monitoring to see if there are any patients waiting for available beds, assigning them to doctors and beds once these become available.

Requirements are classified into two categories, Functional requirements and Non-functional requirements. Non-functional requirements can be used to improve the functioning of the computer system, but not the management of the hospital as a whole. Functional requirements, on the other hand, are requirements directly related to the hospital management.

Functional Requirements: -

1. Registration

- **Register patients** – The system allows patients to be registered at the front desk.
- **Assign ID** – Each patient is given a unique ID when they are admitted into the hospital. This ID will be used to identify them as long as they stay in the hospital.
- **Assign Ward** – The patient will be given a ward according to their choice and/or availability.

- **Assign to Waiting List** – If no ward is available then the patient is put on the Waiting List.

2. **Medical Matter Management**

- **Assign Doctor** – The patient after admission and being shifted into a ward is assigned a doctor who is an expert in that field.
- **Assign Nurse** – A nurse will also be assigned to the patient to take care of them.
- **Emergency Case** – In case of an emergency the doctors and patients are informed immediately so that the Operating Room can be prepped for surgery.
- **Inform Doctors and Nurses** – The system will inform the Doctors and nurses assigned to a specific patient when they are admitted into their respective ward.
- **Admit patient** – A patient on the waiting list will be admitted to a ward as soon as one is available.

3. **Checking Out**

- **Delete Patient ID** – Since the patient ID has no more use, the system will be deleted.
- **Add to Records** – Details of the procedure undergone by the patient will be added to records.
- **Admit a patient on Waiting List to Ward** – In case of no wards being available initially, now one is available. Hence, the system will assign a patient to that ward.

4. **Database**

- **Mandatory Patient Information** – Mandatory details of the patients like their Name, Phone Number, Postal Address, etc. will be taken at the front desk and added to the database by the system.
- **Mandatory Staff Information** – Just like the patients, mandatory information for the staff including their Identification credentials will also be added into the database by the system.
- **Update Staff and Patient Information** – In case of any error or new development, the information of patients and staff should be updated.
- **Search for Patient details** – The system should allow to search for a patient's details in case the need arises.
- **Ward information** – The system should store the details of the type of ward.
- **Room Information** – The system should store details of the number of rooms, the type of ward in the room, etc.
- **Bed Information** – The system should store the details of the number of beds available in the hospital.

Non-Functional Requirements: -

1. **Patient Identification** – The system requires for a patient to identify themselves using their ID.
2. **Login ID** – Any person who accesses the system shall have a Login ID.

3. **Modification** – Any modifications in the details of the system shall only be done by the administrator of the system and the details will be sent to other members as well.
4. **Front Desk Staff Rights** – The front desk staff will be able to add patients into the systems but not be able to modify any details.
5. **Administrator Rights** – Administrator will be able to view and modify details in the system.
6. **Nurse's Rights** – Nurses will be able to view all details in the system.
7. **Doctor's Rights** – Doctors will be able to view all the details in the system.

Requirements: Kathir Sudan