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Hospital Information System

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Introduction:

A hospital information system (HIS) is a computer system that manages all of the data connected to health care providers, allowing them to do their jobs more efficiently. They were first launched in the 1960s and have since evolved. Computers used to be slower than they are now, and they couldn't provide information in real time. They were largely utilized by the employees to keep track of billing and hospital inventories.

A good HIS provides a hospital with a lot of advantages, including the delivery of high-quality patient care and financial management. HIS should be geared for patients and medical personnel, and it must be both affordable and practical.

Doctors plan appointments using hospital information systems, which give a common source of information about a patient's medical history. The system must store data in a secure location and restrict who has access to it under particular conditions. These systems improve health care workers' ability to coordinate care by delivering a patient's health information and visit history when and when it's needed. Visual results, such as X-rays, may be accessible by experts as part of a patient's laboratory test information. Health information systems (HIS) facilitate internal and external communication among health-care practitioners. At the event, portable devices such as smartphones and tablet computers are permitted.

Project Objectives:

Functional requirements

Registrations: The Hospital Management gives front-desk staff the ability to add new patients to the system.

Patients id: The HMS allows front-desk workers to provide a unique ID for each patient, which is then added to the patient's record sheet. The ID is valid for the duration of the patient's stay in the hospital.

Deleting Patient ID: Staff in the ward administration area can remove the patient ID from the system when the patient is checked out of the hospital.

information about patient: The hospital management system produces a report for each patient, including various information such as patient name, phone number, bed number, assigned doctor name, ward name, and so on.

Availability of the Bed: The hospital management system can also help generate reports on bed availability in relation to information such as the number of vacant beds or the number of vacant beds and the ward name.

Update patient information: The hospital management system allows users to update patient information as described in the required information contained therein.

Non-Functional Requirements

• Security

Patient Identification: patient can identify himself to the system using mobile

Login Id: user can't access the system without his login id and password

Front Desk staff rights: The staff in the front desk can view any data in the HMS, add new patients' record to the HMS but they don't have any rights alter any data in it.

Administrator rights: The administrator can view as well as alter any information in the Hospital Management System.

• Performance

Response Time: The system shows the patient's report in one second once his data is recorded.

Capacity: The system needs to support a huge number of people at the same time.

User interface: the user interface needs to be easy to use and fast.

• Maintainability

Backup: The system needs automatic backup constantly.

Errors: The system needs to report any error and keep a log of it.

• Reliability

Availability: the system must be available at any time.

Project Description:

A hospital information system (HIS) is an element of health informatics that focuses mainly on the administrational needs of hospitals, such as medical, administrative, financial, and legal issues and the corresponding processing of services.

"also known as hospital management software (HMS) or hospital management system".

Potential benefits of hospital information systems include:

1. Patient's health history, doctors schedule timing and These systems enhance the coordinate care by providing a patient's health information and visit history at the place and time that it is needed.
2. Efficient and accurate administration of finance, diet of patient, engineering, and distribution of medical aid. It helps to view a broad picture of hospital growth
3. Improved monitoring of drug usage.
4. Enhances information integrity, reduces transcription errors, and reduces duplication of information entries.
5. Eliminates error caused by handwriting. New technology computer systems give perfect performance to pull up information from server or cloud servers.
6. Patient's laboratory test information also includes visual results such as [X-ray].
7. Can uses tablet computer at the bedside.

   Specialized implementations name for example laboratory information system (LIS), Policy and Procedure Management System, radiology information system (RIS) or picture archiving and communication system (PACS).