

# Hospital Management System: A Review of Modern Hospital Management Methods

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**Abstract:** Healthcare in India, like many other parts of the world, is grappling with the growing demand for effective medical treatment and streamlined services. One of the key highlights of this system is the accurate and efficient management of patients' medical records. Doctors rely on accurate documentation, as it is essential for diagnosis, treatment, and future reference. The project, named Medicare, is a Hospital Management System (HMS) built using .NET Framework and LINQ in C#. Its goal is to transform the old-fashioned manual record-keeping into a fully automated and secure digital platform. Medicare is designed to address the problems faced by manually managing hospital data, such as inefficiency, inaccuracy, and limited access, by introducing a computerized system that manages patient registration, outpatient and inpatient records, doctor and nurse assignments, and billing processes in pharmacy and laboratory departments. Each patient is assigned a unique ID and their information is stored securely, making it available to authorized personnel as and when required. The system has smart search features, such as checking room availability, confirming doctor schedules, and retrieving patient information using their ID. With a user-friendly interface, the system is easy to navigate, and LINQ integration allows for robust data querying and manipulation within the application. A notable feature of Medicare is the ability to store patient consultation reports in a centralized database, which patients can access remotely, meeting the modern demand for medical records to be available anytime, anywhere. Using .NET technology and LINQ, Medicare provides a reliable, accurate, and efficient solution for hospital operations and patient care management, reducing time spent and increasing overall hospital productivity.

**Keywords:** LINQ in C#, Hospital Technology, MVC5, MSSQL, Website, Patient, Doctor

