Introduction to the Project

Clinical Laboratory Technology presents the development in the clinical laboratory science. In many countries, there are two main types of labs that process the majority of medical specimens. Hospital laboratories that are attached to a hospital, and perform tests on patients. Private (or community) laboratories receive samples from general practitioners, insurance companies, clinical research sites and other health clinics for analysis. For extremely specialized tests, samples may go to a research laboratory. A lot of samples are sent between different labs for uncommon tests. It is more cost effective if a particular laboratory specializes in a rare test, receiving specimens (and money) from other labs, while sending away tests it cannot do.

In many countries there are mainly three types of Clinical Laboratories as per the types of investigations carried out.

- Clinical Pathology: Haematology, Histopathology, Cytology, Routine Pathology.
- Clinical Microbiology: Bacteriology, Mycobacteriology, Virology, Mycology, Parasitological, Immunology, Serology.
- Clinical Biochemistry: Biochemical analysis, Hormonal assays etc.

1.1 Purpose

The Clinical Laboratory Management System is built for the purpose of effective and clear data saving and manipulating. The Clinical Laboratory Management System Project highly minimizes time and resource by which, searching the reports and data you can get the data in quickest time. And almost the resources are wise used since most actions are done on the Clinical Laboratory Management System. Some of the resources minimize the manpower and paper work. The feature use to storing data in a secure way.

1.2 Scope

The application can be used in any Clinical Laboratory within the hospital or individual for maintaining patients' records such as appointments and sample pickup records detail by customizing some of the features.

1.3 Objectives

It is the user-friendly application which reduces the burden and helps to manage sections of laboratory like patient appointments and sample pickup requests etc., which improve the processing efficiency. It deals with the automating tasks of maintaining of appointments. Appointment and Sample Pickup booking is the key process. Including safe data store about patient as well as fast searching of reports. The Clinical Laboratory Management System is easy for use so the user can do actions without ambiguities. The main Objectives of the CLMS is making the laboratory organizations computerized by creating neat work through minimizing or eliminating wasting of time as well as removing the resources such as papers for data saving.

1.4 Definitions, acronyms and abbreviations

User-friendly	Is the way that the built system is not ambiguous which is clear for using the created software interface for manipulating actions or tasks? In the other way the proposed system is designed for human likable components in color, font and other related things.
Manual based system	The system that uses was paper based and arranged on the shelf through functionality of documents. Everything that is arranged, searched, updated and deleted is through humans only. In general manual-based system is un-computerized

	system which is tedious in its data arrangement for efficient work.
Laboratory	The place where done the different test which recommended by the doctor for the purpose of known the disease.
Management system	A system in which manage, organize, formulate data's through a technical data structure arrangement.
CLMS	Clinical laboratory management system
ASP.NET	The ASP Technology. ASP and *ASP.NET* are server-side technologies.
C#	C# is a programming language from Microsoft that's at the core of the .net framework. Although a cross-platform capable code, C# is most often used by programmers within the Microsoft ecosystem.
Relation	A Table in database is also called as Relation in RDBMS.
MySQL	MySQL is an open-source relational database management system. Its name is a combination of "My", the name of co-founder Michael Widenius's daughter, and "SQL", the abbreviation for Structured Query Language.
IDE	Integrated development environment.

1.5 Overview

The Clinical Laboratory Management System is built in order to replace manual based system to computerize. Here system is expected to be efficient, useful and affordable on implementing tasks that is order by the Lab in charge.

Clinical Laboratory Management System will ensure:

- Pharmacists having access to the proposed system at any time.
- Reducing the employees' workload.
- Improving the efficiency of the system by ensuring effective monitoring of services and activities.
- Resolving customer queries.
- Providing interface to the users webforms to book appointments, sample pickups, contacting etc.
- Keeping records of patients in laboratory database.