

COMPLEX COMPUTING PROBLEM (CCP) PROPOSAL

Title:

Hospital Patient Record System

Team Name:

Quantum Coders

Group Members:

1. Eman Siddiqui CT-072
2. Dua Farooq CT-058

Introduction:

Hospitals handle a large number of patients every day, and keeping their information safe, accurate, and easily accessible is a challenge. Traditional manual methods, such as paper-based registers or simple handwritten notes, often lead to errors, missing data, or delays in retrieving patient information.

To overcome these challenges, this project aims to design a **Hospital Patient Record System** in the C programming language. This program will act as a small-scale management tool that can store, search, and display patient data efficiently.

Problem Statement:

Currently, patient details such as name, age, disease, and ID are often stored manually. This approach has several disadvantages:

- ✓ Difficulty in searching for a specific patient quickly.
- ✓ Chances of duplication or misplacement of data.
- ✓ Time wastage when records must be updated or verified.

Hospitals need a digital solution that can organize patient data properly and help staff access it without errors.

Objectives of the Project:

The objectives of this project are:

- ✓ To design a program that stores patient records systematically.
- ✓ To allow users to **search patients by ID** or by **disease**.
- ✓ To provide an easy option to view all patient records.
- ✓ To reduce errors and save time compared to manual record-keeping.
- ✓ To demonstrate how programming can solve real-world problems in healthcare.

Proposed Features:

- ✓ **Add Patient Record** → Input and store patient details such as ID, name, age, and disease.
- ✓ **Search Patient by ID** → Quickly find a patient's record using their unique ID.
- ✓ **Search Patient by Disease** → Retrieve all patients suffering from a specific disease.
- ✓ **Display Records** → Show all stored patient records in an organized format.

Tools and Technology:

- **Programming Language:** C
- **Compiler:** Dev-C++ / Code::Blocks
- **Version Control:** Git hub

Expected Outcome:

At the end of this project, the system will be able to:

- ✓ Store multiple patient records.
- ✓ Search records instantly without going through physical files.
- ✓ Display data in a neat, organized way.

This will result in a **small but functional hospital management tool** that saves time, improves efficiency, and provides a base for future advanced systems.

Conclusion:

The Hospital Patient Record System is a practical project that applies programming concepts to a real-world problem. By starting with simple methods and leaving room for future improvements, the system will demonstrate both problem-solving skills and the ability to apply computing to the medical field.