

# KUMARI SHALU SUMAN

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• Greater Noida • <https://github.com/Shalu099>

## Objective

A passionate and detail-oriented MCA graduate seeking a Software Engineer role to apply my programming skills, problem-solving abilities, and knowledge of software development to deliver high-quality solutions. Eager to contribute to a dynamic team and grow as a technology professional.

## Skills

Language • C • C++

Web Development • HTML • CSS • JavaScript

Database • SQL • SQL Queries

Soft Skills • Good Communication • Quick Learner • Analytical Thinking

Tools • Git • GitHub • Code Blocks • Visual Studio Code

## Education

GL Bajaj Institute of Technology and Management

Master's of Computer Applications(MCA)

09/2024 - Present

Patliputra University

Bachelor's of Computer Applications(BCA)

09/2021 - 08/2024

Surpat Singh High School

Higher Secondary (12th Grade)

2020 - 2021

## Projects

### Hospital Management System

**Technologies Used:** C++, MySQL, MySQL Connector/C++, Object-Oriented Programming (OOP)

**Description:**

Designed and developed a console-based Hospital Management System to streamline and automate hospital administrative tasks. The system manages patient information, doctor records, appointment scheduling, and billing processes through a user-friendly, menu-driven interface. The application is built using modular C++ code and connects to a MySQL database to store and retrieve data efficiently.

- **Patient Management:** Register new patients, update medical records, and search patient history.
- **Doctor Module:** Add doctor profiles, link specializations, and manage their schedules.
- **Appointment System:** Schedule and track appointments between doctors and patients.
- **Billing System:** Generate and update invoices, track payments, and print billing reports.
- **Login System:** Secure admin login and access control using credentials stored in the database.

### Sudoku Solver

**Technologies Used:** C++, Backtracking Algorithm, 2D Arrays, STL

**Description:**

Developed a console-based Sudoku Solver using C++ that automatically solves any valid 9x9 Sudoku puzzle. The project applies the classic **backtracking algorithm**, a recursive technique used to fill in empty cells by checking for valid entries row-wise, column-wise, and within 3x3 subgrids. The program uses a 2D array to represent the Sudoku board and includes input validation for unsolvable or incorrect puzzles.

- Accepts partially filled Sudoku puzzles as input.
- Validates the board before attempting to solve.
- Uses recursion and backtracking to find the correct solution.

## Key Achievements

### Solved 50+ DSA problems on LeetCode

Solved 50+ DSA problems on LeetCode and strengthening core problem-solving more optimized code.

### Achieved Excellence Certificates in C++ from CondingNinja

Awarded **Excellence Certificate in C++** from **Coding Ninjas** for outstanding performance in structured programming and object-oriented concepts.