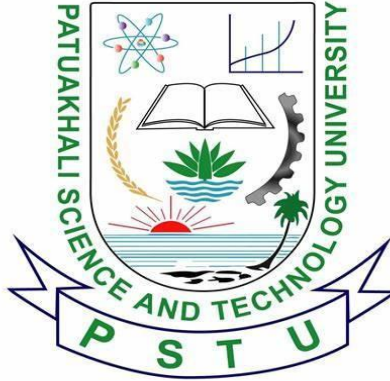


# PATUAKHALI SCIENCE AND TECHNOLOGY UNIVERSITY



## Project Report of CCE-122

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### SUBMITTED TO:

**Prof. Dr. Md. Samsuzzaman**

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**Department of Computer and Communication Engineering  
Faculty of Computer Science and Engineering**

### SUBMITTED BY:

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**ID:** 2102064

**Registration No:** 10191

**Session:** 2021-22

**Level-1, Semester-2**

**Faculty of Computer Science and Engineering**

**Date of submission:** 10/03/2024

# **Project Title:** Hospital Management System

## **Context and motivation behind the proposed project:**

The healthcare sector requires efficient management systems to handle patient records, appointments, staff scheduling, and inventory. Automating these processes can improve efficiency, accuracy, and patient care.

## **Objectives and goals of the project:**

1. Create a user-friendly interface for managing patient records, appointments, and staff schedules.
2. Implement secure access controls to protect sensitive patient data.
3. Integrate features for billing, inventory management, and reporting.
4. Improve communication between staff members through the system.
5. Enhance overall efficiency and productivity within the hospital environment.

## **Functionalities and limitations of the project:**

### **❖ Functionalities:**

- Patient registration and record management
- Appointment scheduling
- Staff management and scheduling
- Billing and invoicing
- Inventory management
- Reporting and analytics
- Communication tools for staff members

### ❖ **Limitations:**

- May require additional modules for specialized departments or functionalities.
- Initial setup and training may be time-consuming for staff.
- Security measures must be robust to protect patient privacy.

### **Users or audience for the project:**

- Hospital administrators
- Medical staff (doctors, nurses, technicians)
- Receptionists
- Billing and administrative staff

### **Why I choose Java as the programming language for this project:**

Java offers platform independence, robustness, and scalability, making it suitable for developing enterprise-level applications like Hospital Management Systems. Its rich ecosystem of libraries and frameworks simplifies development and maintenance.

### **The development tools, Integrated Development Environment (IDE), and version used in this project:**

IDE: Apache NetBeans

Version: IDE 19

## **Developers information:**

Name : MD Mobin Haque, Nazmus Sakib, MD Nazmul Hasan

ID : 2102064, 2102066, 2102068

Reg. No. : 10191, 10193, 10195

Session : 2021-22

Level-1, Semester-2.

## **Hardware and software resources required for project development:**

**Hardware:** Standard PC or laptop with sufficient RAM and processing power.

**Software:** Java Development Kit (JDK), Apache NetBeans IDEA IDE, Java Swing for GUI development.

## **Estimated budget for the project:**

The budget will depend on factors such as development time, resources, and potential licensing fees for third-party tools or libraries. A rough estimate would be in the range of \$500 - \$1000.

## **Summarization of the key points of the project proposal:**

The proposed Hospital Management System aims to streamline various aspects of hospital operations including patient management, appointment scheduling, staff management, billing, and inventory. Developed using Java, it will offer a user-friendly interface, robust security features, and scalability to meet the needs of different healthcare facilities. Key functionalities include patient registration, appointment scheduling, billing, inventory management, reporting, and communication tools for staff members.