## Report: Hostel Management System

## GROUP MEMBERS: SAYED AHTESHAMULLAH SHAH, AMIR GUL AND GHULAM MUSTAFA

**\*\*1. Introduction: \*\***

**The Hostel Management System is a Java application designed to streamline the management of a hostel's operations. It provides features for enrolling students, managing their details, searching for students, assigning rooms, and managing mess-related activities.**

**\*\*2. Purpose: \*\***

**The purpose of this system is to automate and simplify the tasks involved in managing a hostel, including student enrolment, room allocation, mess management, and generating bills.**

**\*\*3. System Components: \*\***

**\*\*a. Main2 Class: \*\***

**- Entry point of the application.**

**- Provides a user interface using Swing for interacting with the system.**

**- Options include enrolling students, searching for students, managing rooms, and managing mess-related activities.**

**\*\*b. DB Class: \*\***

**- Manages database operations using JDBC.**

**- Handles student enrolment, searching, deletion, room searching, and adding bills to the database.**

**\*\*c. Mess Management Class: \*\***

**- Manages mess-related activities such as adding students to the mess.**

**- Limits the number of students allowed in the mess to 10.**

**\*\*d. Hostel Manager Class: \*\***

**- Manages hostel-related operations such as student enrollment, searching, deletion, and room searching.**

**- Limits the number of students allowed in the hostel to 10.**

**\*\*e. Student Class: \*\***

**- Represents a student entity with attributes such as ID, name, department, and room.**

**\*\*f. Bill Class: \*\***

**- Represents a bill entity for mess-related expenses, including student ID, name, consumed days, and total bill amount.**

**\*\*4. Features: \*\***

**\*\*a. Student Enrolment: \*\***

**- Allows adding new students to the system with ID, name, department, and room details.**

**- Limits the number of enrolled students in the hostel.**

**\*\*b. Student Search and Deletion: \*\***

**- Enables searching for students by name, ID, or department.**

**- Allows deleting students from the system.**

**\*\*c. Room Management: \*\***

**- Facilitates searching for students based on room numbers.**

**\*\*d. Mess Management: \*\***

**- Allows adding students to the mess system with consumed days and calculates the total bill.**

**- Limits the number of students allowed in the mess.**

**\*\*5. User Interface: \*\***

**- Utilizes JOptionPane for displaying messages and receiving input from the user.**

**- Provides a simple and intuitive interface for hostel management tasks.**

**\*\*6. Conclusion: \*\***

**The Hostel Management System offers a comprehensive solution for efficiently managing hostel operations. By automating tasks such as student enrollment, room allocation, and mess management, it enhances the overall efficiency and organization of hostel administration.**

**\*\*7. Future Enhancements: \*\***

**- Implement user authentication and authorization for secure access.**

**- Add features for managing staff details and their responsibilities.**

**- Incorporate reporting and analytics for better decision-making.**

**- Enhance the user interface for a more modern and user-friendly experience.**

**PROJECT OUTPUTS**













