**Project Report**

**Subject:** Java Programming

**Topic:** Library Management System

**Team Name:** Team STORM

**Section :** CSE CORE 27

**Members:**

* Rajshekhar Singh ( LEADER )

Adm no. :- 23SCSE1010193

Contact:- 6205541970

E-mail :- [rajshekharsingh1420@gmail.com](mailto:rajshekharsingh1420@gmail.com)

* Nishu Nihal Singh

Adm no. :- 23SCSE1011507

Contact:- 9939818297

E-mail :- [nishunihal12345@gmail.com](mailto:nishunihal12345@gmail.com)

* Aman kumar

Adm no. :- 23SCSE1010138

Contact:- 9142082284

E-mail :- [amanthakur90012@gmail.com](mailto:amanthakur90012@gmail.com)

* Shivam kumar

Adm no. :- 23SCSE1010808

Contact:- 8271981598

E-mail :- [shivamtagore542@gmail.com](mailto:shivamtagore542@gmail.com)

**Objective:**

Develop simple yet efficient and easy to use Library Management system allowing users to:-

* User-friendly interface
* Book Management
* User Management Borrow and Return Book.
* Fine Calculation
* Search and filter option.
* Transaction History
* Error Handling and Data Validation
* Reporting and Stastistics.

**Problem Statement:**

* The problem is that many libraries rely on Inefficient, manual process for managing books , users and transactions, leading to errors , delays and poor user experience.
* A Java based Library Management system with a GUI is needed to automate these tasks, Improving accuracy, accessibility and operational efficiency.

**Technical Stacks:**

* Programming Language: Java, Core language for implementing classes, logic, and methods.
* GUI framework :- SWING for designing Graphical user interface.
* Database - MySQL for storing the data.
* IDE:- Visual Studio Code
* Version Control :- Git with platforms like GitHub or Gitlab for version control and collaboration.