ISSN (Online): 2456-0448
International Journal Of Innovative Research In Management, Engineering And Technology
Vol. 9, Issue 11, November 2024

Digital Bank Locker Management System

[1] Saravanan. P, [2]Karthikeyan.S
[1] Student: Department Of Mca, Er Perumal Manimekalai College Of Engineering(Autonomous) ,Hosur, Tamil Nadu, India
[2] Assistant Professor, Department Of Mca, Er Perumal Manimekalai College Of Engineering(Autonomous),Hosur, Tamil Nadu, India

Abstract: ***The goal of the project "Digital Bank Locker Management System" is responsible for keeping all the record of assign lockers which is assign by banker. This system helps the locker holder who wants to keep their valuable with bank with high safety. The main objective of "Digital Bank Locker Management System" project is to providing easier to bank and locker holder. There are banks for people to keep their valuable things saved in an allocated locker which they can access any time they want Just like people don't keep the savings at home, use banks instead and make transactions when needed.***

I. INTRODUCTION

Digital Bank Locker Management System is a web based application which dealswith bank lockers which stores valuables things of bank customers. All details of lockers are saved in database. This project is developed using PHP with MySQL i extension. In this project user is those who have locker in bank. With the help oflocker number user can see the details of lockers.

II. SOFTWARE ANALYSIS

A. Front-End Technologies

- **HTML**: For structuring web pages.
- **CSS**: For designing an intuitive and responsive user interface.
- **JavaScript**: For client-side scripting and dynamic interactivity.

B. Back-End Technologies

- **PHP**: For server-side logic and data handling.

C. Database

- **MySQL**: A relational database used to store and retrieve employee and payroll data.

D. Development Tools

- **Visual Studio Code**: IDE for code development.
- **XAMPP**: For hosting the Apache server and MySQL database locally.

III. EXISTING SYSTEM

The system has been designed after a detailed study of various algorithms for the same. The first step of face recognition, i.e., face detection uses algorithms like colour segmentation, template matching and algorithms like Eigen & Fisher face for face recognition which is the second step.

IV. PROPOSED SYSTEM

- **Real-Time Updates**: Automated locker status and availability updates.
- **Error Reduction**: Accurate, automated calculations to minimize errors.
- **Secure Data Access**: Encrypted storage with role-based controls and MFA.
- **Automated Notifications**: Alerts for expirations, payments, and maintenance.
- **Responsive Design**: Mobile-friendly interface for all devices.
- **Scalable**: Easily adaptable for growth and new branches.

V. Modules

1. User Management

- Customer registration and authentication.

- Manage user roles (e.g., admin, staff, customer).

2. Locker Management

- Allocate and deallocate lockers.
- Track locker status (occupied, vacant, under maintenance).

3. Security and Access Control

- Biometric/PIN-based locker access.
- Maintain access logs and surveillance integration.

4. Payment and Billing

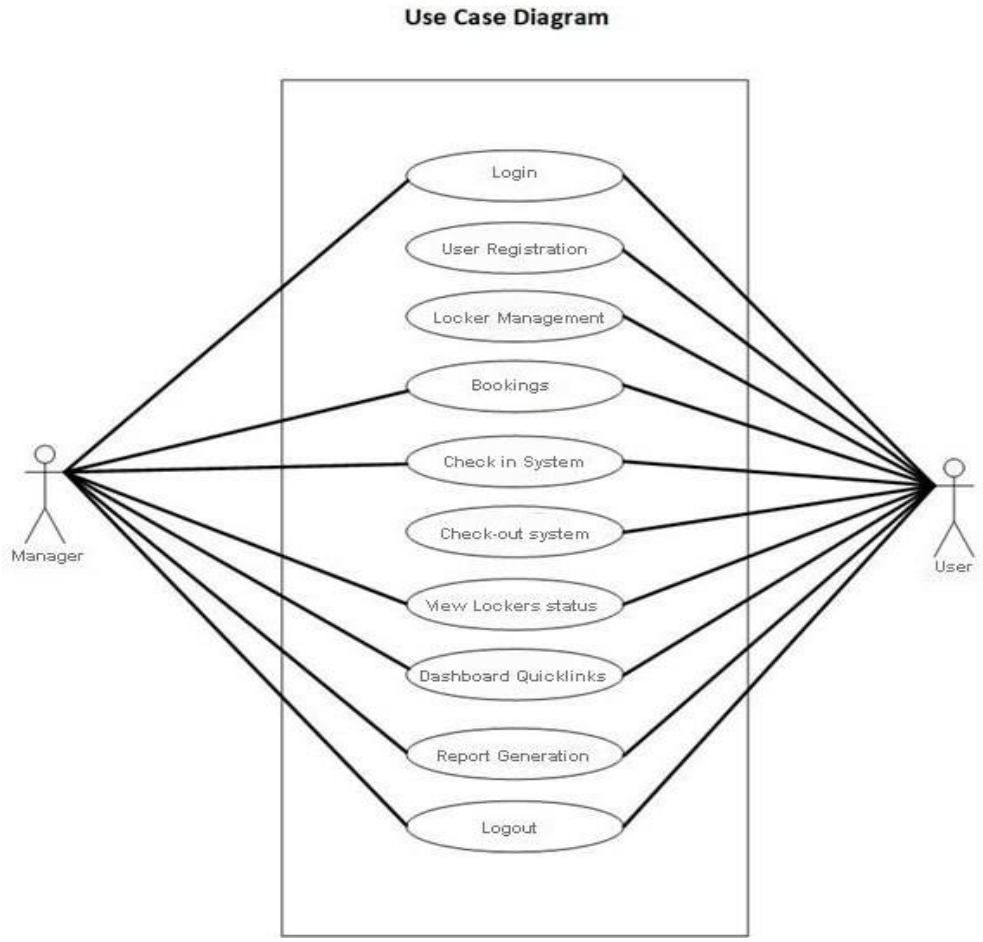
- Manage locker rental fees and payment tracking.
- Send payment reminders and generate receipts.

5. Notifications

- Alerts for payments, due dates, or unauthorized access attempts.
- Notifications for locker availability and other updates.

VI. Architecture Diagram

Fig.1. Use Case Diagram



VII. RESULT

The Bank Locker Management System was successfully implemented using HTML, CSS, JavaScript, PHP, and MySQL. The system achieved:

1. Efficient Locker Management with accurate tracking.

2. Responsive Design for ease of use across devices.
3. Robust Security with biometric and PIN authentication.
4. Timely Notifications for payments and alerts.
5. Comprehensive Reporting for audits and analysis.

VIII. CONCLUSION

This Application provides a computerized version of bank lockers facilitywhich will benefit the people who locker in bank. It makes entire process online and can generate reports. It has a facilityof bankers login, sub-banker login where banker can manage assign lockers and generate assign lockers report. The application was designed in such a way that future changes can bedone easily. The following conclusions can be deduced from the development of the project.

References

- J. Brown, "Securing Bank Locker Systems with Biometric Authentication," *Journal of Secure Computing*, vol. 12, no. 4, pp. 210-218, 2021.
- A. Green, "Database Optimization for Banking Systems," *MySQL Insights*, vol. 10, no. 3, pp. 78-85, 2020.
- R. Patel, "Responsive Web Design in Banking Applications," *Journal of Web Technologies*, vol. 15, no. 2, pp. 101-108, 2022.
- L. Carter, "Regulatory Compliance in Digital Banking Solutions," *Banking and Finance Review*, vol. 7, no. 1, pp. 45-50, 2020.