LOST AND FOUND SYSTEM

A MINI-PROJECT REPORT

Submitted by

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BONAFIDE CERTIFICATE

Certified that this project **"LOST AND FOUND SYSTEM"** is the bonafide work of **"KARTHICK K,AJAY S,DHARANIDHARAN P"** who carried out the project work under my supervision.

SIGNATURE

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This mini project report is submitted for the viva vIce examination to be held on

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INTERNAL EXAMINER **EXTERNAL EXAMINER**

ABSTRACT

The *Lost and Found System using DBMS and Java* is a web-based application developed to efficiently manage the process of reporting and recovering lost items within an organization or community. The main objective of the system is to provide a centralized and automated platform that minimizes manual effort and enhances the chances of reuniting users with their lost belongings.

In this system, users can create accounts, submit details of lost or found items, upload images, and search for matching records using filters and keywords. The application is developed using Java for both front-end and back-end operations, while a Database Management System (DBMS) is employed to securely store and organize user and item information. Administrators play a key role in verifying user reports, maintaining data consistency, and managing system activities through an intuitive interface.

By integrating modern web technologies and database management principles, the system ensures data security, accuracy, and accessibility. It also improves communication between users by providing a transparent and structured reporting mechanism. Overall, this project offers an effective, reliable, and scalable digital solution for handling lost and found records, promoting efficiency and convenience in everyday operations.

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INTRODUCTION

1.1 INTRODUCTION

The *Lost and Found System using DBMS and Java* is designed to help users easily report and recover lost or found items within an organization or institution. In traditional systems, managing such records manually is time-consuming and inefficient. This application provides a digital platform that automates the entire process, allowing users to register items, search for matches, and communicate with others quickly. Developed using Java for the application logic and a Database Management System (DBMS) for secure data handling, the system ensures accuracy, transparency, and ease of access. It reduces manual effort, enhances user convenience, and provides an organized way to manage lost and found records efficiently.

1.2 SCOPE OF THE WORK

The *Lost and Found System using DBMS and Java* aims to provide a digital platform for efficiently managing lost and found items within an organization or campus. The system allows users to report lost or found objects, upload item details and images, and search for matching records. Administrators can verify and manage these reports to ensure data accuracy and prevent misuse. The project covers user management, data storage, item categorization, and automated record tracking using a secure database. It enhances accessibility, saves time, and improves communication between users, making the process of locating lost items faster and more reliable.

1.3 PROBLEM STATEMENT

In many organizations and institutions, managing lost and found items manually is inefficient, time-consuming, and often leads to data loss or miscommunication. There is no proper system to record, track, and verify lost or found objects, making it difficult for users to recover their belongings. The lack of a centralized digital platform results in poor coordination and limited accessibility. To overcome these issues, a web-based *Lost and Found System* using DBMS and Java is proposed to automate the process, ensure data security, and simplify the recovery of lost items efficiently.

1.4 AIM AND OBJECTIVES OF THE PROJECT

Aim:

The main aim of this project is to develop a web-based *Lost and Found System* using DBMS and Java that automates the process of reporting, managing, and recovering lost or found items efficiently.

CHAPTER 2

SYSTEM SPECIFICATIONS

2.1 HARDWARE SPECIFICATIONS

Processor	:	Intel i5
Memory Size	:	8GB (Minimum)
SSD	:	1 TB (Minimum)

2.2 SOFTWARE SPECIFICATIONS

Operating System	:	WINDOWS 11
Front – End	:	JAVA SWING
Back - End	:	SQL
Language	:	JAVA,SQL

CHAPTER 3

MODULE DESCRIPTION

The *Lost and Found System using DBMS and Java* is divided into several modules to ensure efficient operation and easy maintenance.

1. **User Module:**
Allows users to register, log in, and report lost or found items by providing details and uploading images. Users can also search for matching items.
2. **Admin Module:**
Enables the administrator to verify user reports, manage records, and maintain data integrity to prevent false entries.
3. **Database Module:**
Handles secure storage, retrieval, and updating of all user and item information using DBMS.
4. **Search Module:**
Provides filtering and keyword-based search features to quickly match lost and found items.
5. **Notification Module:**
Notifies users when a possible match is found or when their report status is updated.

CHAPTER 4

SAMPLE CODE

```
import java.sql.*;


public class UserDAO {


   // Add this test method
  public void testConnection() {
   System.out.println("=== Database Connection Test ===");
   try (Connection con = DBConnection.getConnection()) {
      if (con == null) {
         System.out.println("❌ ERROR: Connection is null!");
         return;
      }


      System.out.println("✓ Connection successful!");
      System.out.println("  Database: " + con.getCatalog());
      System.out.println("  User: " + con.getMetaData().getUserName());
```

```
// Check for UsersData table
DatabaseMetaData meta = con.getMetaData();
ResultSet rs = meta.getTables(null, "SYSTEM", "USERSDATA", null);
if (rs.next()) {
   System.out.println("✓ UsersData table found!");
} else {
   System.out.println("❌ UsersData table NOT found!");
   System.out.println("  Available tables:");
   rs = meta.getTables(null, "SYSTEM", "%", new String[]{"TABLE"});
   while (rs.next()) {
      System.out.println("    - " + rs.getString("TABLE_NAME"));
   }
}

// Check for LostItems table
rs = meta.getTables(null, "SYSTEM", "LOSTITEMS", null);
if (rs.next()) {
```

```
            System.out.println("✓ LostItems table found!");
        } else {
            System.out.println("❌ LostItems table NOT found!");
        }

        // Check for FoundItems table
        rs = meta.getTables(null, "SYSTEM", "FOUNDITEMS", null);
        if (rs.next()) {
            System.out.println("✓ FoundItems table found!");
        } else {
            System.out.println("❌ FoundItems table NOT found!");
        }

    } catch (Exception e) {
        System.out.println("❌ ERROR during connection test:");
        e.printStackTrace();
    }
    System.out.println("================================\n");
```

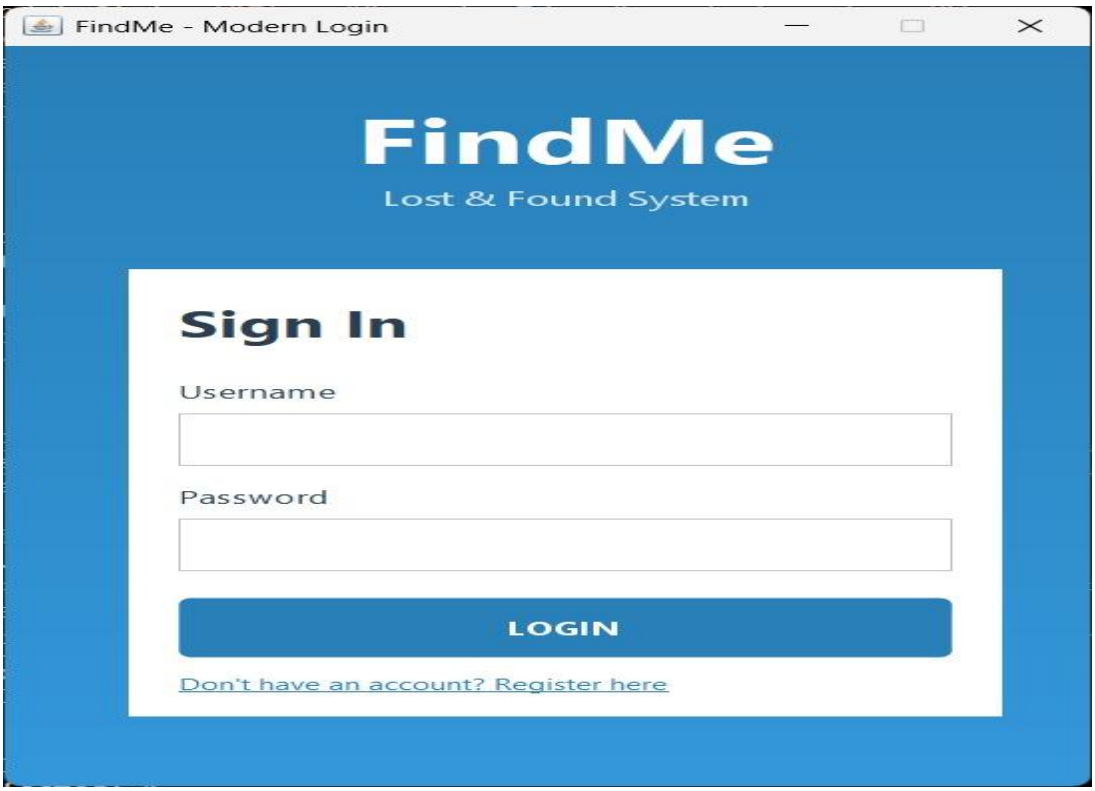
```
}


    public boolean registerUser(User user) {
        try (Connection con = DBConnection.getConnection()) {
            String sql = "INSERT INTO UsersData (username, password, email)
VALUES (?, ?, ?)";
            PreparedStatement ps = con.prepareStatement(sql);
            ps.setString(1, user.getUsername());
            ps.setString(2, user.getPassword());
            ps.setString(3, user.getEmail());
            int rows = ps.executeUpdate();
            return rows > 0;
        } catch (SQLException e) {
            e.printStackTrace();
        }
        return false;
    }


    public int loginUser(String username, String password) {
```

```
        try (Connection con = DBConnection.getConnection()) {

            String sql = "SELECT user_id FROM UsersData WHERE username=? AND
password=?";

            PreparedStatement ps = con.prepareStatement(sql);

            ps.setString(1, username);

            ps.setString(2, password);

            ResultSet rs = ps.executeQuery();

            if (rs.next()) {

                return rs.getInt("user_id");

            }

        } catch (SQLException e) {

            e.printStackTrace();

        }

        return -1;

    }

}
```

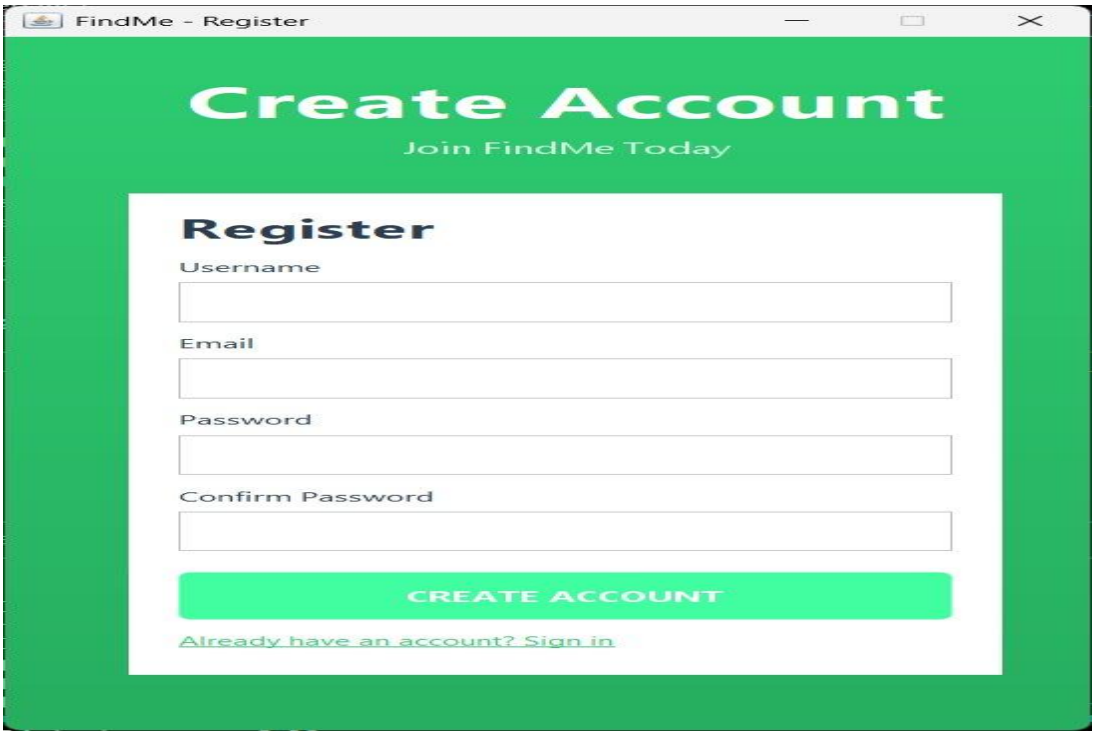
CHAPTER 5

SCREEN SHOTS

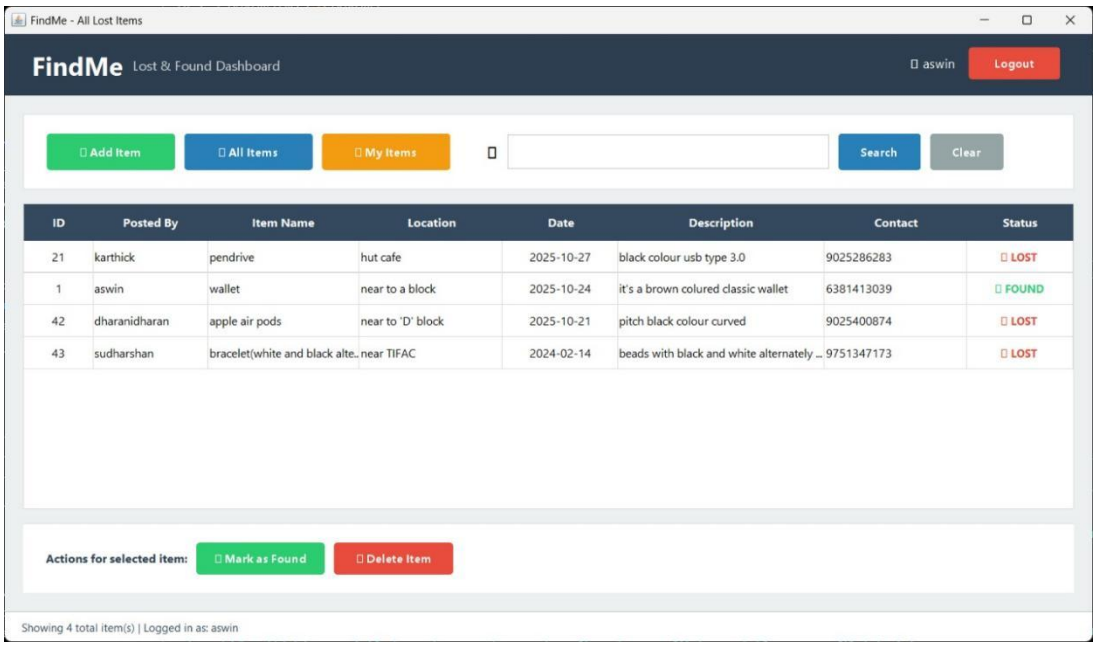
LOGIN FRAME:



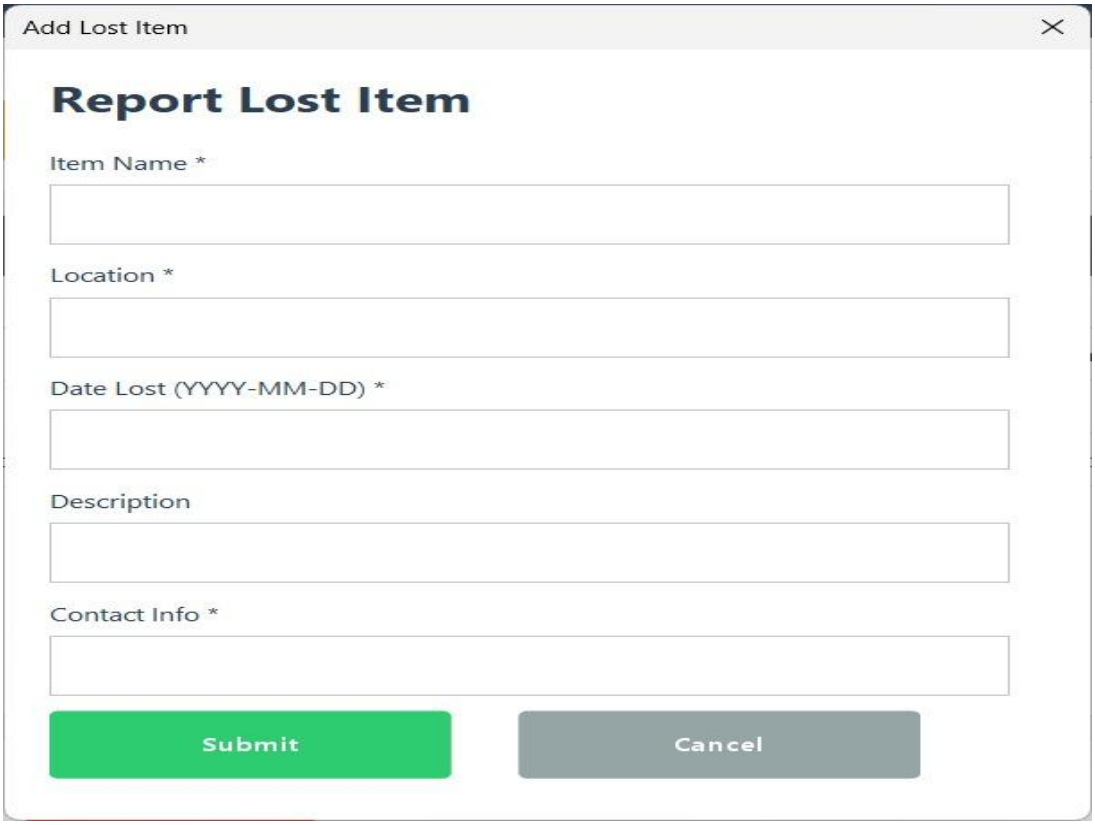
DASHBOARD:



REGESTATION DESK:



REPORT PAGE:


Add Lost Item
Report Lost Item
Item Name *
Location *
Date Lost (YYYY-MM-DD) *
Description
Contact Info *
Submit
Cancel

CHAPTER 6

CONCLUSION AND FUTURE ENHANCEMENT

The *Lost and Found System using DBMS and Java* successfully provides a digital platform to manage lost and found items efficiently within an organization. It automates manual processes, ensures secure data handling, and improves communication between users. By using Java for application logic and DBMS for data management, the system achieves accuracy, transparency, and reliability in tracking and recovering lost belongings.

In the future, the system can be enhanced by integrating mobile application support, real-time notifications through email or SMS, and AI-based image matching to identify similar items automatically. Cloud integration and GPS tracking features can also be added to make the system more accessible, scalable, and user-friendly.

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