



## University Lost and Found Portal Report

### Group Members (F) BSE

1. KATO HAMUZAH KIZITO 2024/BSE/079/PS
2. KIRABIRA PETER 2024/BSE/087/PS
3. KISUULE ISAAC 2024/BSE/088/PS
4. NALUKWAGO HADIJAH 2024/BSE/138/PS
5. MBAREEBAKYI DEUS 2024/BSE/099/PS
6. CHELANGAT EZEKIEL SOYET 2024/BSE/053/PS

### Project Overview

The University Lost and Found Portal is a full-stack web application developed using PHP and MySQL that facilitates the reporting and recovery of lost items within a university campus. The system supports both guest and registered user interactions, with an administrative backend for moderation and user management.

### Technology Stack

- **Backend:** PHP 7.4+ (Procedural MySQLi)
- **Database:** MySQL 5.7+
- **Frontend:** HTML5, CSS3, JavaScript
- **Server:** Apache 2.4+ (XAMPP/WAMP)

## Key Features

### User Management System

- User registration with email verification
- Secure login with password hashing using bcrypt
- Session-based authentication
- Role-based access control with admin privileges

### Item Reporting System

- Report lost items with required image uploads
- Report found items with privacy guidelines
- Image upload functionality with security validation
- Form validation on both client and server sides

### Search and Browse System

- Dynamic filtering by item type (lost/found)
- Real-time search across title, description, and location
- Responsive grid layout for item display
- Image modal viewer for detailed item images

### Admin Management System

- Role-based admin access using database-stored credentials
- Dashboard with system statistics
- Item management (view/delete any item)
- User management (view/delete users, grant/revoke admin rights)
- Automatic image cleanup when items are deleted

## Database Schema

The system uses two main tables:

1. **users** - Stores user accounts with authentication details
2. **items** - Stores lost and found item reports with foreign key relationship to users

## Security Features

- Password hashing with bcrypt
- SQL injection prevention via `mysqli_real_escape_string()`
- XSS protection with `htmlspecialchars()`
- File upload security with type validation
- Session management for authentication
- Access control for protected pages

## Responsive Design

The portal features a mobile-responsive design using CSS Grid and Flexbox, ensuring optimal viewing experience across all device sizes.