International Islamic University Chittagong

Department of Computer Science & Engineering

Project Report
ON
CSE-3532

TOOLS AND TECHNOLOGIES FOR INTERNET PROGRAMMING

TOPIC — Document Management System

SUBMITTED TO —

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Objective:

To develop a user-friendly web application that allows users to securely upload, organize, and manage their notes and files including documents, images, audio, and video, with enhanced features like profile customization and dark mode.

Frontend Technologies Used:

- **HTML5 & CSS3**: Basic structure and styling of pages
- **Bootstrap 4.4.1**: Responsive layout, grid system, navbar, forms, buttons
- **Google Fonts (Inter)**: Clean typography
- **Font Awesome & Bootstrap Icons**: Visual icons for file types, profile, etc.
- **JavaScript**:
    - Toggle between dark/light mode
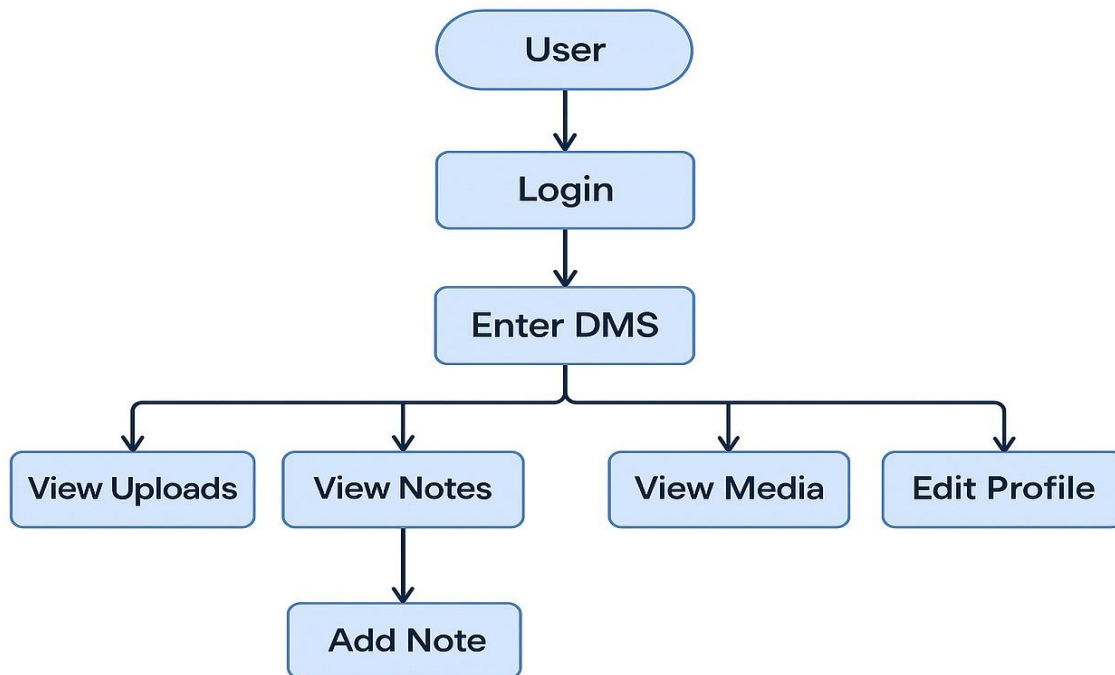   - Delete notes with fetch API

Backend Technologies Used:

- **Python**: Programming language
- **Flask**: Lightweight backend web framework
- **Flask-Login**: User authentication and session management
- **Flask SQLAlchemy**: ORM for handling database operations
- **Werkzeug**: Password hashing and file handling
- **SQLite**: Lightweight database used for storing user info, notes, and uploaded files
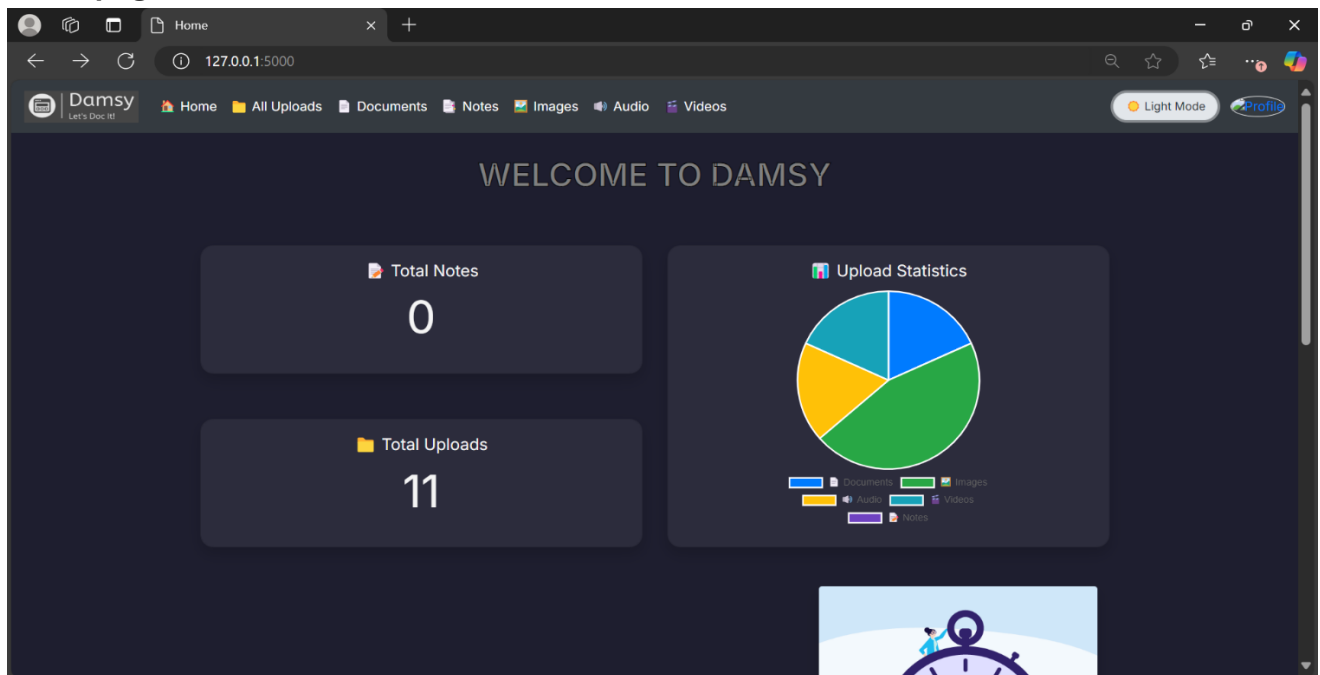
Key Features Implemented:

1. **User Authentication**: Sign up, login, logout
2. **Notes Management**: Create and delete text notes
3. **File Upload & Categorization**: Upload and view files by type (Documents, Images, Audio, Video)
4. **All Uploads Page**: Unified view of all uploaded files
5. **User Profile Page**:
    - View current profile picture
    - Upload new profile image
    - Edit name
6. **Dark Mode Toggle**: Switch between light and dark theme
7. **Dashboard Stats**: Count of notes and each file type
8. **Responsive Navigation Bar**: Icons, profile image, logout button neatly aligned
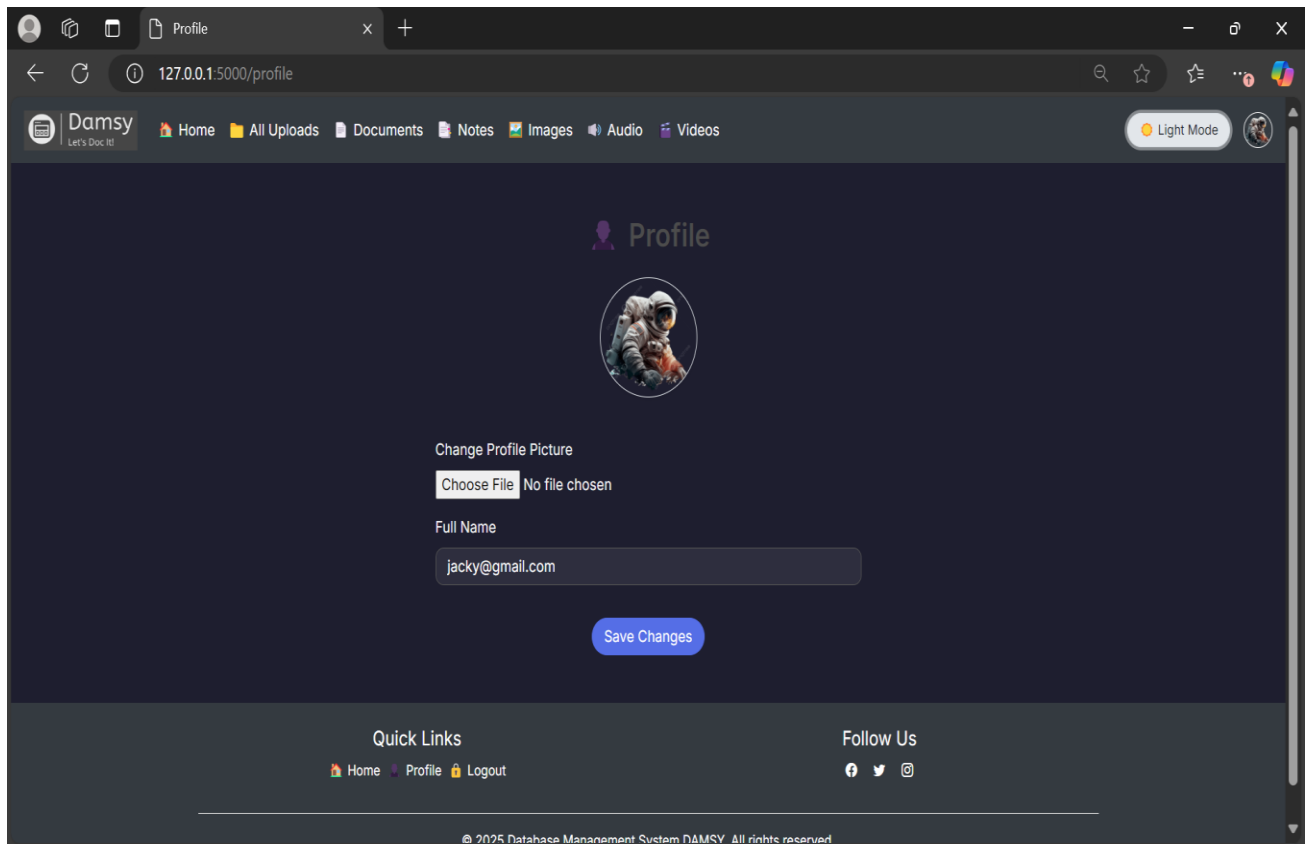
Flowchart of System Workflow:

```
                    ┌─────────────┐
                    │    User     │
                    └─────────────┘
                           │
                           ▼
                    ┌─────────────┐
                    │    Login    │
                    └─────────────┘
                           │
                           ▼
                    ┌─────────────┐
                    │  Enter DMS  │
                    └─────────────┘
                           │
        ┌──────────────┬───┴────────┬──────────────┐
        ▼              ▼            ▼              ▼
 ┌────────────┐ ┌────────────┐ ┌────────────┐ ┌────────────┐
 │View Uploads│ │ View Notes │ │ View Media │ │Edit Profile│
 └────────────┘ └────────────┘ └────────────┘ └────────────┘
                       │
                       ▼
                ┌────────────┐
                │  Add Note  │
                └────────────┘
```

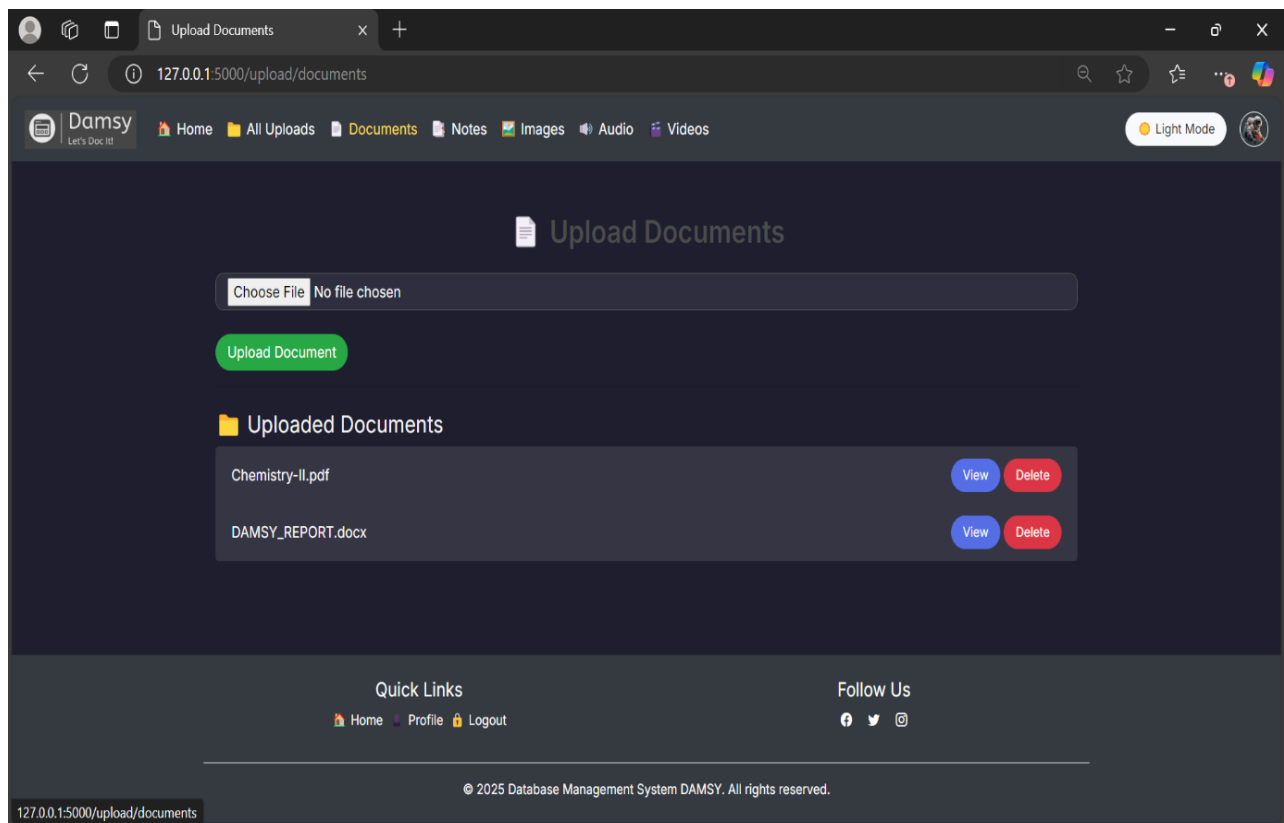## *Screenshots:*

1. **Homepage with Dark Mode and Stats:**
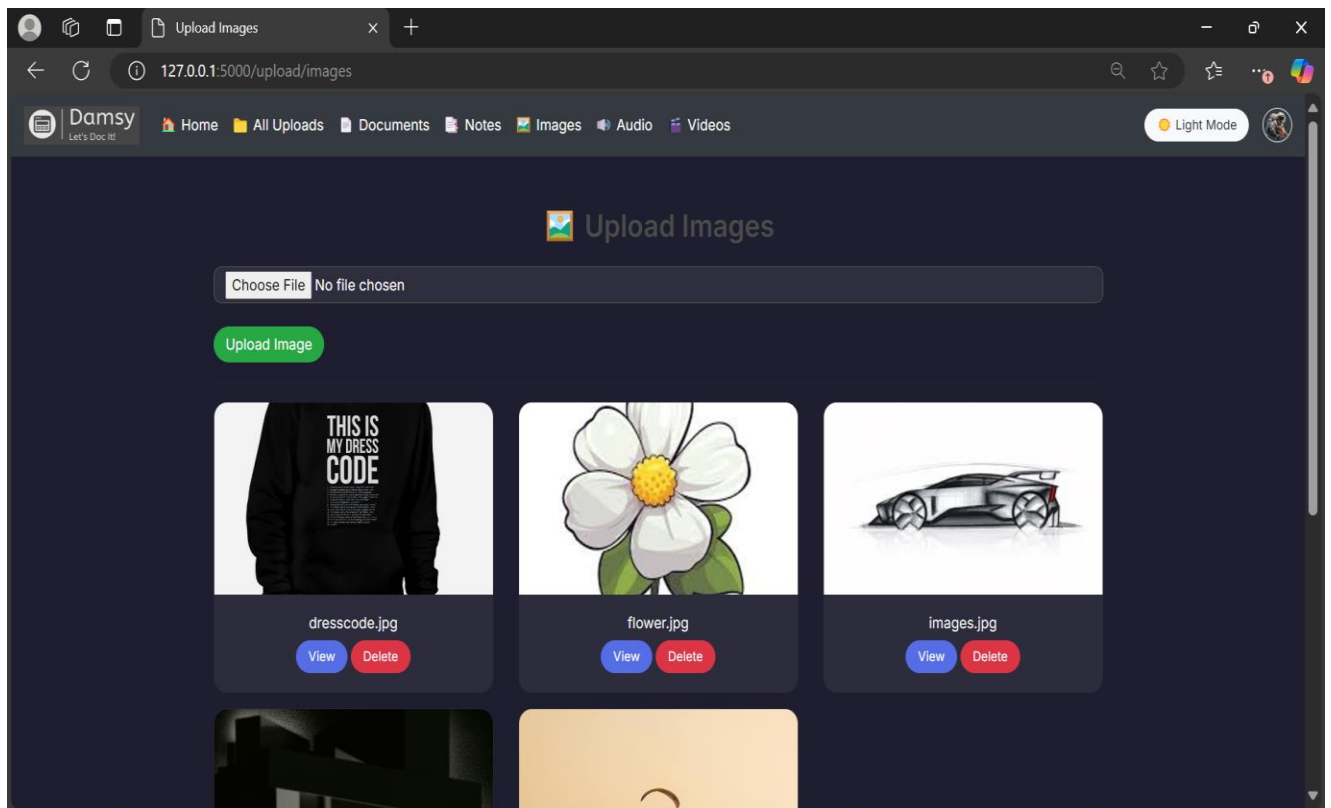
2. Profile Page with Picture Upload:

3. All Uploads Page by Category:

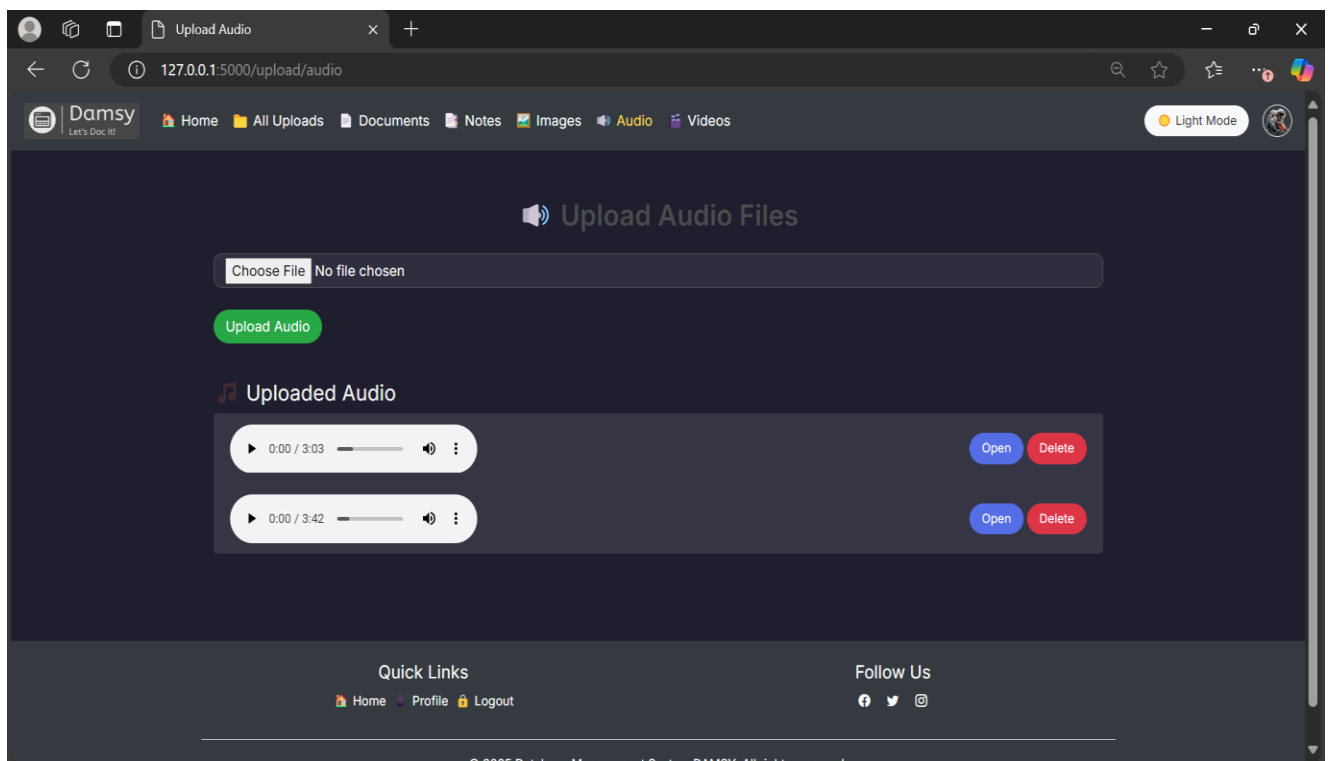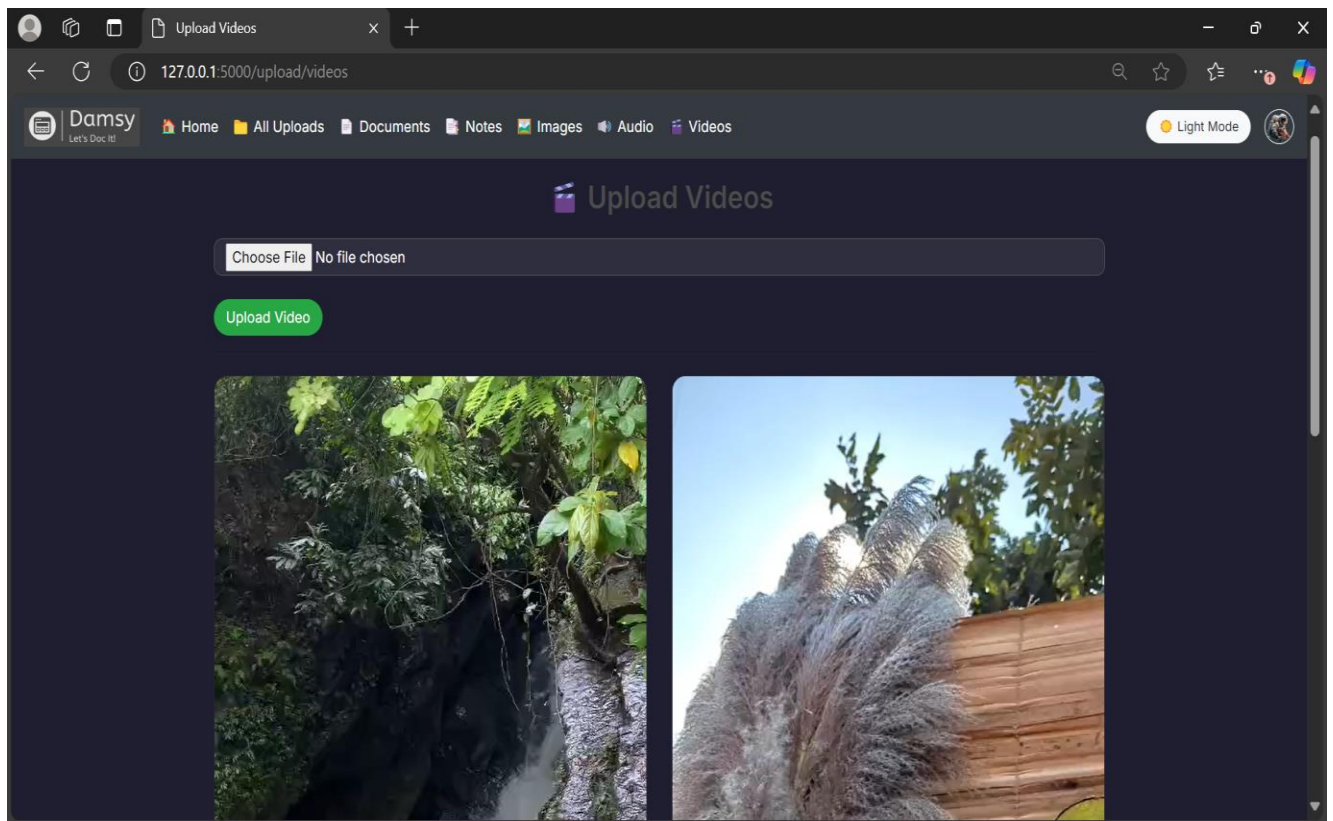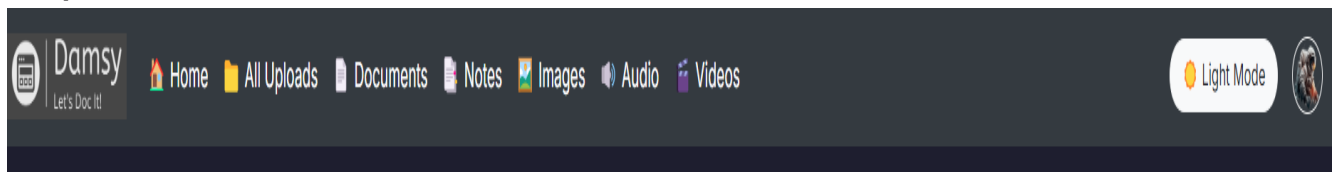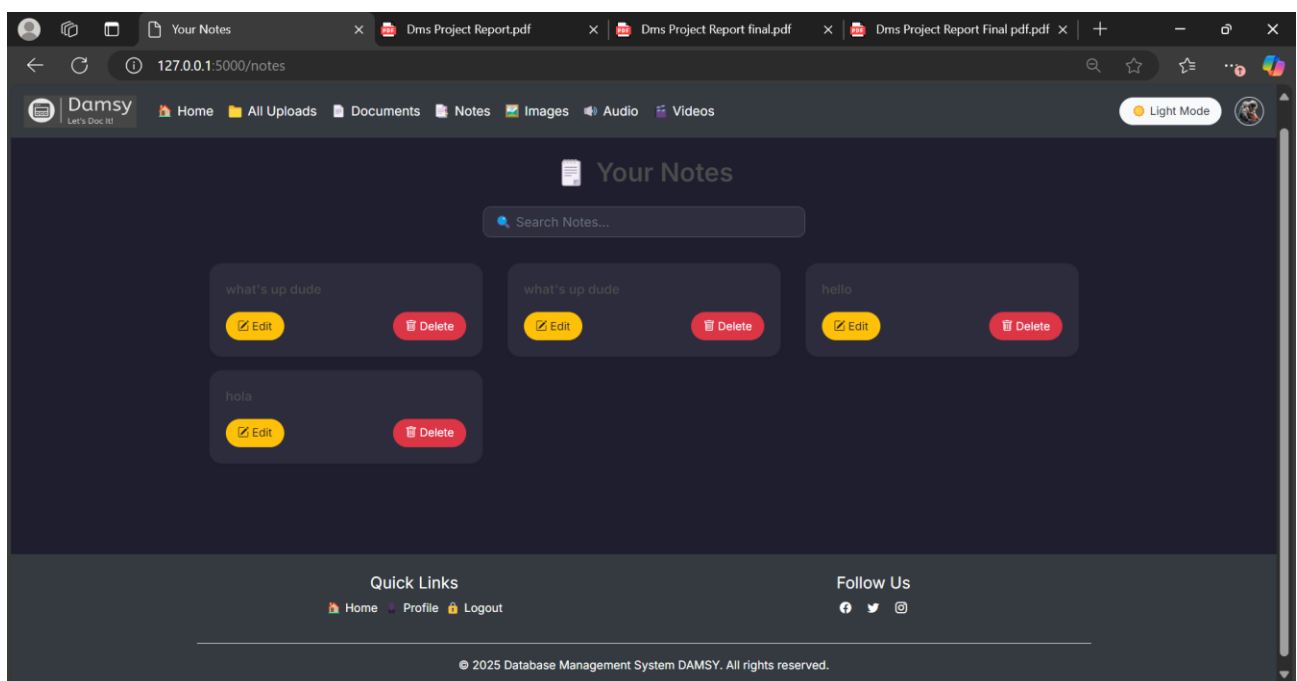## • Documents

- **Images**

- **Audio**

- **Videos**

4. Responsive Navbar with Icons:

5. Notes Selection with Delete Feature:

Conclusion:

This Document Management System demonstrates a complete web application architecture using Flask. It is clean, modular, and includes features for usability (dark mode, profile pictures), functionality (file uploads, note-taking), and security (authentication). The project can be extended to include file previews, download tracking, and user roles in future versions.