RAJALAKSHMI
ENGINEERING COLLEGE
An AUTONOMOUS Institution
Affiliated to ANNA UNIVERSITY, Chennai

# XEROX MANAGEMENT SYSTEM

**A MINI PROJECT REPORT**

**SUBMITTED BY**

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# BONAFIDE CERTIFICATE

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# ABSTRACT

The **Xerox Management System** is an innovative solution designed to streamline the operations of Xerox service providers by digitizing and automating key aspects of their workflow. The system enables users to upload and manage PDF documents, making it easier for Xerox shop owners to receive, store, and process orders. The application includes a chatbot feature to handle customer inquiries and guide users through the submission process. By utilizing a web-based interface built with HTML, CSS, JavaScript, and PHP, coupled with a backend powered by MySQL for database management, the system provides a seamless user experience for both customers and owners. Additionally, the project incorporates real-time updates, role-based access control, and data visualization tools to help administrators make informed decisions. The system aims to reduce manual labour, improve operational efficiency, and enhance the overall customer experience for Xerox service providers.

## TABLE OF CONTENTS


**1. INTRODUCTION**

1.1 INTRODUCTION

1.2 OBJECTIVES

1.3 MODULES

**2. SURVEY OF TECHNOLOGIES**

2.1 SOFTWARE DESCRIPTION

2.2 LANGUAGES

2.2.1 HTML,CSS,JAVASCRIPT

2.2.2 SQL

2.2.3 PHP

**3. REQUIREMENTS AND ANALYSIS**

` 3.1 ARCHITECTURE DIAGRAM

3.2 ER DIAGRAM

3.3 NORMALIZATION

**4. PROGRAM CODE**

**5. RESULTS AND DISCUSSION**

**6. CONCLUSION**

**7. REFERENCES**

# 1.1 INTRODUCTION

## Introduction to Xerox Management System

The **Xerox Management System** is an innovative platform designed to streamline and simplify the document duplication process for both customers and Xerox shop owners. This system allows customers to upload PDFs directly, specify their requirements, and track their orders seamlessly. For shop owners, it provides an organized interface to manage incoming requests, handle customer instructions efficiently, and monitor order progress. By digitizing and automating the Xerox workflow, this system not only saves time but also enhances customer experience and operational efficiency, creating a smoother and more reliable Xerox service.

## Importance of Xerox Management System:

Effective management in hypermarkets is paramount for several reasons, each contributing to the overall success and sustainability of the business. The retail landscape is dynamic and competitive, requiring hypermarkets to operate with agility and precision. Here are key aspects that underscore the importance of management:

i. **Managing Heavy Crowds**: During peak times, such as exam seasons, the demand for printouts increases significantly. In traditional Xerox shops, the heavy crowd can make it difficult to get prints quickly, causing delays. Our project addresses this by automating the print request and processing system, allowing users to upload documents online, reducing physical crowding and improving accessibility to print services.

ii. **Time Efficiency**: In conventional Xerox shops, users often have to wait in line, which can be time-consuming. The automation in our system significantly reduces this wait time. Once the user uploads a PDF, the document is immediately processed and printed by the system, ensuring much faster turnaround and a more efficient experience overall.

iii. **Convenience and Accessibility**: By automating the Xerox process, users can submit print jobs remotely from anywhere and at any time. This removes the need for users to physically visit a shop, making the service more accessible and convenient, especially for time-sensitive needs such as exam preparation or business-related printouts.

iv. **Streamlined Communication**: Reduces the need for in-person or phone communication, allowing users to specify details like paper type, print quality, or colour options directly in the system.

v. **Data and Analytics:** Shop owners can track the volume and types of print jobs, helping them analyze trends, manage resources, and optimize their services to meet customer demand more effectively.

## Purpose of the Project

The purpose of the **Xerox Management System** is to create an efficient, user-friendly platform that bridges the gap between customers and Xerox shop owners, transforming traditional document duplication into a streamlined digital experience. This project aims to automate and simplify the Xerox process by allowing users to upload documents, provide specific instructions, and track order statuses in real-time. For shop owners, the system serves as a comprehensive management tool, organizing incoming requests and enhancing operational flow. Ultimately, the project's goal is to improve service quality, reduce waiting times, and enhance customer satisfaction while also providing shop owners with valuable insights and tools for efficient business management.

## Scope of the Xerox Management System

The scope of the **Xerox Management System** is designed to meet the needs of both customers and Xerox shop owners, covering a variety of functionalities to streamline and enhance the document duplication process:

1. **User Roles and Access Control**:

   The system will support different user roles, including **Customer**, **Shop Owner**, and **Admin**, each with specific access rights and functionalities. This role-based structure ensures a secure, tailored experience for each type of user.

2. **Document Upload and Management**:

   Customers can upload PDF files directly to the system, specify their printing requirements (such as color, size, and quantity), and send them to the shop owner. This feature simplifies the document submission process, making it efficient and error-free.

3. **Order Tracking**:

   Users will be able to track their orders in real-time, receiving updates on order status (e.g., "Accepted," "In Process," "Ready for Pickup"), which reduces uncertainty and improves the user experience.

4. **Customer and Order Management for Owners**:

Shop owners can view, organize, and manage incoming orders, ensuring a structured workflow. They can prioritize tasks, track order completion, and handle customer requirements with ease.

5. **Reporting and Analytics**:

The system will offer basic reporting and analytics tools, allowing shop owners to analyze order volume, track peak times, and monitor customer trends. These insights will assist in planning and improving business operations.

## Need for the Project

The need for a **Xerox management system** project arises from a combination of modern customer expectations, operational challenges faced by Xerox shops, and the benefits of digital transformation. Here's an in-depth look at why this project is essential:

Increased Customer Convenience and Accessibility:

- **Self-Service and Flexibility**: Today's customers expect convenience and control. By enabling them to upload documents from anywhere and specify details remotely, the system meets this demand for a self-service option.
- **24/7 Availability**: Customers can upload files and place print orders at any time, even outside of shop hours, which can lead to increased business.

**Operational Efficiency for Shop Owners:**

- **Reduced Waiting Times:** With the ability to pre-process orders, shop owners can streamline workflows, reducing wait times and allowing them to serve more customers efficiently.
- **Efficient Sales Tracking**: Keeping track of sales across various departments can be cumbersome. The system simplifies sales tracking, providing managers with detailed reports that assist in strategic planning and performance evaluation.

**Reduction of Errors and Miscommunication:**

- **Clear Instructions**: Customers can specify detailed instructions (e.g., color, paper size, single or double-sided printing) when uploading documents. This minimizes human errors that often arise from verbal instructions.
- **Automated Tracking**: Digital orders reduce the need to manually keep track of pending jobs, decreasing the likelihood of lost orders or mistakes.

**Enhanced Customer Satisfaction:**

- **Transparency**: Customers can see the status of their orders and communicate any changes or issues without needing to be physically present.
- **Quality Assurance:** Digital records make it easier to ensure the final print product meets customer specifications, which enhances satisfaction and repeat business.

## 1.2 OBJECTIVES

The primary objectives of a Xerox management system are to improve the efficiency, accessibility, and overall user experience for both customers and Xerox shop owners. Here's a breakdown of the specific objectives:

### 1. Streamline the Document Upload and Order Process

- Enable customers to easily upload PDFs and other document formats for printing.
- Allow customers to specify printing details (e.g., colour, paper type, size, single or double-sided) directly in the system.

- Simplify order management for shop owners by providing a clear list of incoming orders with specifications.

### 2. Enhance Customer Convenience and Accessibility

- Provide customers with a self-service platform where they can place orders at any time, from any location.
- Allow customers to track the status of their orders, minimizing the need for in-person inquiries.
- Reduce wait times by allowing users to pre-upload files and submit orders, so printing can start as soon as the customer arrives.

### 3. Improve Operational Efficiency for Xerox Shops

- Provide shop owners with a centralized order management system to organize, track, and prioritize printing jobs effectively.
- Minimize manual order-taking tasks, freeing up staff to focus on high-value activities.

- Streamline workflows and reduce human error through automated order documentation.

## 4. Facilitate Clear Communication Between Customers and Shop Owners

- Ensure that customers can clearly communicate their requirements to minimize errors.
- Provide a messaging or feedback option so customers and shop owners can clarify details if needed.
- Store detailed order information for easy reference, reducing miscommunication and rework.

## 5. Increase Business Scalability and Growth

- Attract a broader customer base by offering a tech-savvy, user-friendly experience.
- Use customer data and order history to understand trends and preferences, which can help optimize stock and service offerings.
- Enable promotional or loyalty programs to drive customer retention and increase repeat business.

## 6. Ensure Data Security and Privacy

- Protect customer documents and information through secure data handling and storage practices.
- Implement user authentication and access control to maintain the privacy of each customer's files.
- Ensure compliance with data privacy standards to build trust and safeguard sensitive information.

## 7. Provide Real-time Updates and Notifications

- Offer analytics for shop owners to track order volume, popular services, peak times, and customer preferences.
- Enable shop owners to make data-driven decisions to improve services, manage resources, and plan for future growth.

These objectives collectively ensure that the Xerox management system delivers value to both customers and shop owners, creating a more efficient, customer-focused, and data-driven environment for document printing services.

## 1.3 MODULES

### 1. Login Module

- Overview: The login module serves as the entry point for all users and the Owners of the system. It ensures that only authorized personnel can access specific features based on their role.
- Functionality:
    - **User Selection**: The User Selection Module is the entry point, allowing users to choose between User and Owner roles.
    - **Signup and Login**: The Signup and Login Module provides secure access to the Xerox Management System, allowing users to create accounts and log in. The **Signup Page** collects basic details to register new users, while the **Login Page** enables registered users and owners to authenticate and access their role-specific features. This module ensures data security and maintains role-based access within the system.
    - **Error Handling**: Provides feedback for incorrect login attempts and allows password sign in options if necessary.

### 2. Admin Dashboard Module

- **Overview**: The **Admin Dashboard** is designed for the Xerox shop owner to manage the system's operations effectively, streamlining the entire Xerox process.
- **Functionality**:
    - **User and Owner Management**: Allows the admin to add, edit, or remove user and owner accounts. This includes managing login credentials and access permissions.
    - **Document Management**: Admins can view and organize uploaded documents, track document status, and facilitate efficient handling of customer requests.
    - **Order Monitoring**: Provides a clear view of pending and completed orders, helping admins to track and prioritize requests effectively.
    - **Account Management**: Admins can update account information, change passwords, and securely log out of the system.

### 3. User Dashboard Module

- Overview: This module is designed for customers of the Xerox management system, providing a user-friendly interface to submit and track Xerox orders.
- Functionality:
    - **Document Upload**: Allows users to upload PDFs directly to the system, providing specific instructions for their Xerox orders.
    - **Order Tracking**: Users can view the status of their current orders, helping them stay informed about progress and completion times.
    - **Order History**: Enables users to view past orders and details, making it easy to reprint documents or reference previous requests.
    - **Order Notifications**: Users receive updates on order status, such as when an order is accepted, in process, or ready for pickup.

## 5. Chatbot Module

- **Overview:**

  The chatbot responds to common questions about uploading documents, tracking orders, and choosing print options. Provides up-to-date status information on customer orders, such as processing or ready-for-pickup status. Assists users in selecting print specifications (colour, paper type, copies) during order setup.

- **Functionality:**

  Users can select files from their devices and upload them to the system. Once uploaded, users can preview their documents and confirm that they are ready for printing. The system validates file formats and sizes to ensure compatibility. Users receive a notification once the document is successfully uploaded and processed.

## 6. Payment Module

- **Overview:**

The Payment Module handles secure online transactions for print jobs. It enables users to pay for printing services via multiple online payment methods, streamlining the payment process.

- **Functionality:**

  After the print job is completed, users are provided with an invoice detailing the amount due. The module supports various payment options, such as credit/debit cards, online wallets, and bank transfers. Once payment is made, the system confirms the transaction and updates the user's account, sending a payment receipt to the user.

## 7. Print Job Tracking Module

- **Overview:**

  The Print Job Tracking Module allows users to track the real-time progress of their print jobs from submission to completion.

- Functionality:

  Users can view the status of their print jobs, such as whether the document is "Uploaded," "In Progress," or "Completed." The system provides real-time updates and estimated completion times. Notifications are sent to users when their print job has finished, ready for pickup or delivery. The module also maintains a history of past print jobs for users to review.

# 2. SURVEY OF TECHNOLOGIES

## SOFTWARE DESCRIPTION

To develop a comprehensive and efficient Xerox Management System, several technologies and tools can be leveraged across the frontend, backend, database, and server. Here's a breakdown of recommended software, languages, and tools:

### 1. Frontend Technologies

The frontend defines the user interface, allowing users and shop owners to interact with the system smoothly and intuitively.

- **HTML (HyperText Markup Language)**: Used to structure the content on web pages, creating forms, buttons, and layouts for document uploads, user selection, and dashboards.
- **CSS (Cascading Style Sheets)**: Used for styling the web pages, ensuring a visually appealing and responsive design that works well on various devices (desktop, mobile, etc.).
- **JavaScript**: Adds interactivity to the interface, allowing for features such as dynamic form validation, updating order status in real-time, and enhancing user experience with animations and transitions.

### 1. Backend Technologies

The backend handles business logic, processing user requests, managing data, and ensuring secure access control.

- **PHP (Hypertext Preprocessor)**: A widely-used server-side scripting language, PHP is ideal for managing user interactions, processing file uploads, and handling server-side logic efficiently. It integrates well with the chosen database and simplifies the creation of dynamic, data-driven pages.

### 2. Database

The database stores user details, document data, order statuses, and any other necessary records in a structured and retrievable format.

- **MySQL**: A popular relational database system, MySQL is compatible with PHP and offers powerful data management capabilities. It allows for the creation of tables for users, orders, documents, and order history, ensuring data is securely stored and easily accessed when needed.

## 4. Server and Hosting

The server hosts the application and ensures it's accessible to users from various devices and locations.

- **Apache**: A robust and open-source web server, often used with PHP and MySQL. It's ideal for handling requests, managing resources, and ensuring secure communication.

- **XAMPP (for Local Development)**: These local server solutions provide a pre-configured environment with Apache, PHP, and MySQL, allowing developers to test the application locally before deployment.

## 3. File Storage:

The system will require storage for uploaded PDFs and document files.

- **Local Server Storage**: Uploaded documents can be stored on the server in a designated directory, ensuring easy access and retrieval by shop owners.

## 4. Version Control: Git

Using **Git** for version control is essential in developing the Xerox Management System, as it allows you to track changes, collaborate with team members, and manage code effectively.

# 2.2 LANGUAGES

## Languages Used :

The Xerox Management System is developed using a set of programming languages and technologies that together create a responsive, interactive, and secure web application. Here's an overview of each language and its role within the project:

## Frontend Technologies

### 1. HTML

- **Purpose**: HTML is the foundation of web content structure. It provides the basic framework for the website, defining elements like headers, paragraphs, forms, buttons, and links.
- **Use in the Project**: HTML is used to create the layout for the user interface pages, such as the document upload form, order tracking, and dashboard views for customers and shop owners

### 3. CSS

- CSS is used to ensure that the interface adapts seamlessly to different devices, making the Xerox Management System accessible on desktops, tablets, and smartphones.
- CSS provides visually appealing elements, such as button styling, hover effects, and icons, making the application intuitive and engaging for users.

## Backend Technologies

## PHP

- **Server-Side Scripting**: PHP is used as the primary server-side scripting language, enabling dynamic web page generation and handling backend processing for the Xerox Management System.
- **Handling PDF Uploads**: PHP scripts manage the uploading and processing of PDF files submitted by users, storing them in the system to ensure shop owners have easy access to documents for printing.

- **Database Connectivity**: PHP connects the system to a MySQL database, allowing secure interactions with stored data. It facilitates CRUD operations (Create, Read, Update, Delete) for managing customers, orders, and employee records.
- **Role-Based Access Control**: Using PHP, the system enforces role-based access, ensuring only authorized users can perform specific tasks, such as document uploads, order processing, and account management.
- **Form Handling and Validation**: PHP processes form data submitted by users, including registration and login forms. It performs server-side validation to ensure data integrity and security.
- **Session Management**: PHP handles user sessions, maintaining logged-in states and providing a secure experience for different users (e.g., admins, owners, customers) by controlling access and functionality.

## Database Technologies

### 1. MySQL

**Overview**: MySQL is a widely-used open-source relational database management system (RDBMS) that is known for its reliability and performance.

**Usage**: In your project, MySQL is employed to store and manage all application data, including customer records, employee credentials, inventory details, and sales transactions. SQL queries are used to interact with the database from the Python backend.

**Advantages**:

- Scalability: MySQL efficiently handles large datasets and high traffic, making it suitable for applications of varying sizes.
- ACID Compliance: It ensures data integrity and reliability through support for transactions.
- Cross-Platform Compatibility: MySQL can run on various operating systems, providing flexibility for deployment and hosting.

# 3.REQUIREMENT AND ANALYSIS

## Requirements and Analysis of the Xerox Management System Project

### 3.0.1 Introduction

In developing the Xerox Management System, a thorough requirements and analysis phase was conducted to understand the functional and non-functional needs of the application. This system is designed to simplify and enhance the document handling process for Xerox shops, providing customers with a convenient platform to upload files and track order progress.

The requirements analysis involved identifying the key features and user roles, including customer, shop owner, and admin functionalities, to ensure each user has a tailored and intuitive experience. This phase also examined system security, user interface design, and integration needs for seamless, real-time data access and management.

### 3.0.2 Functional Requirements

The functional requirements detail the specific features and operations the Hypermarket Management System must support:

1. **User Registration and Authentication**:

   Users, including customers and shop owners, must be able to sign up, log in, and securely access their accounts.

2. **PDF Upload Functionality**:

   Customers should be able to upload PDF files for printing, with file size limitations and format validation.

3. **Order Tracking**:

   Users can view the status of their document orders, including stages like "processing" or "ready for pickup."

4. **Chatbot Assistance**:

   A chatbot will provide quick answers to common questions, guide users through the document submission process, and offer order status updates.

5. **Role-Based Access Control**:

   Different user roles (customer, admin, shop owner) will have specific access rights and functionalities.

6. **Inventory and Service Management**:

   Shop owners can manage print supplies and service options, updating prices, available paper types, and special requests.

### 3.0.3 Non-Functional Requirements

Non-functional requirements define the quality attributes, performance, and constraints of the system:

1. Usability:

   The interface should be user-friendly and intuitive for all users, with clear navigation and accessible design.

2. Performance:

   Fast response time for uploading documents, accessing order status, and interacting with the chatbot.

3. Security:

   Secure user authentication, encrypted storage for sensitive data, and role-based access control.

4. Security:

   User credentials must be securely stored and managed, with appropriate measures in place to prevent unauthorized access.

5. Reliability:

   The system should provide consistent access and performance, handling multiple users and orders simultaneously.

6. Data Integrity:

   Ensure accurate and consistent data storage, especially for user accounts, orders, and inventory details.

# 3.1 ARCHITECTURE DIAGRAM

The architecture of the **Xerox Management System** follows a multi-tier structure, which ensures clear separation of concerns and efficient data flow across different system layers. Here's an overview of each layer and component involved in the system architecture:

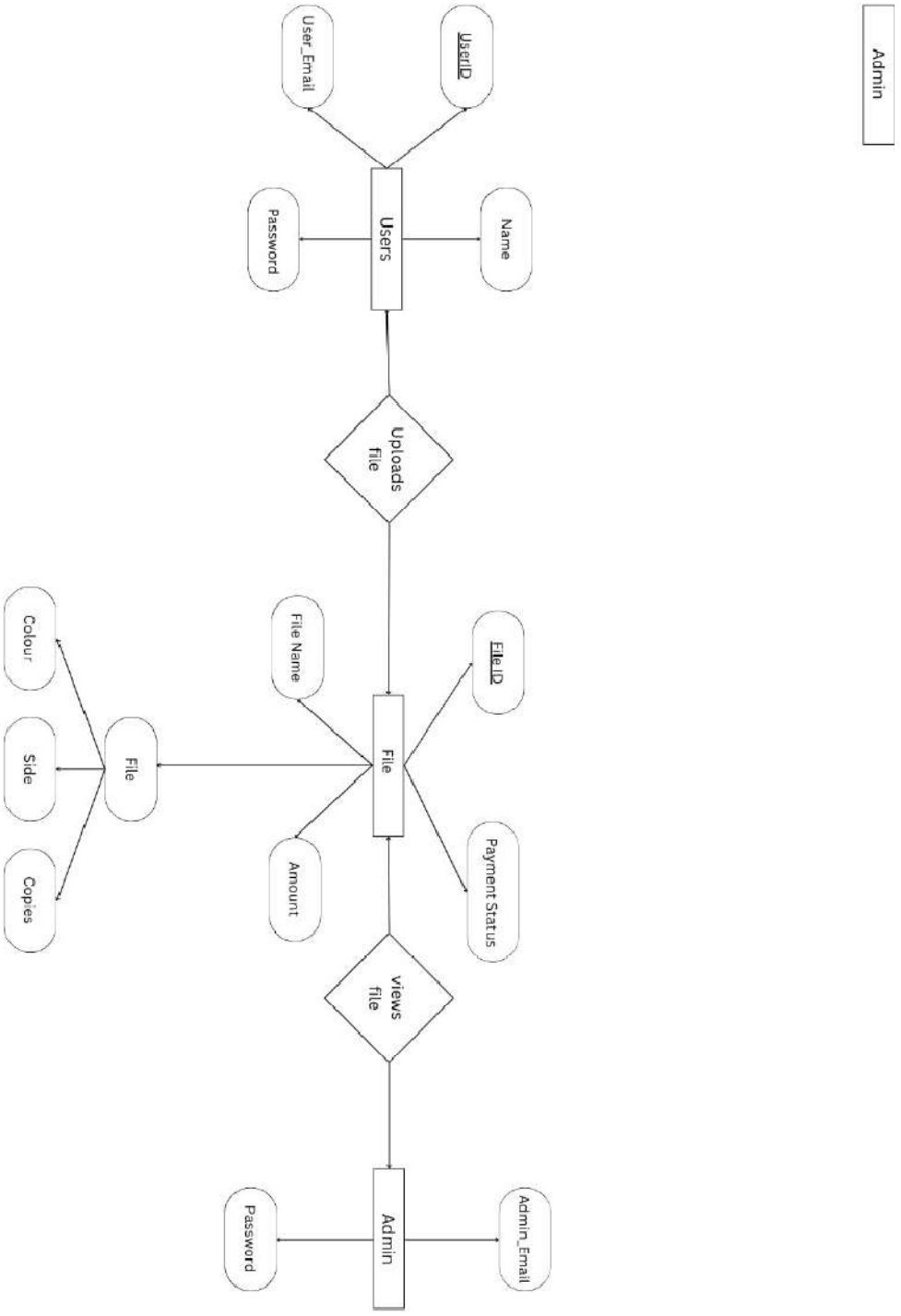
1. **Client Layer (Presentation Layer)**:
    - **Frontend Technologies**: The user interface is built using HTML, CSS, and JavaScript, providing an intuitive and responsive experience for users.
    - **User Access**: Users interact with the system through a web interface, where they can log in, upload documents, view order statuses, and access chatbot support.
    - **Role-Specific Views**: Different user interfaces are provided based on the role (customer, admin, or shop owner), ensuring each role has access to the relevant features and information.
2. **Application Layer (Business Logic Layer)**:
    - **Core Logic**: This layer is responsible for processing user requests, handling order management, and managing the business rules of the system.
    - **Backend Technologies**: Built using PHP, this layer coordinates between the frontend and the database, processing actions like document upload, order status tracking, and chatbot interactions.
    - **Chatbot Integration**: The chatbot service is connected to the backend, allowing real-time responses to user queries related to order tracking, FAQs, and service guidance.
    - **File Management**: PDF files uploaded by users are validated and securely stored, with functionality for retrieving files when needed for processing or updates.
3. **Database Layer**:
    - **Database System**: MySQL is used to store and manage data. It includes tables for users, orders, documents, inventory, and chatbot logs.
    - **Data Management**: The database handles CRUD operations (Create, Read, Update, Delete) to maintain data integrity and provide real-time access to information.
    - **Role-Based Access Control**: Specific access levels are assigned to user roles within the database, ensuring secure and authorized access to data.
4. **Service Layer**:

- **Notification Service**: Sends updates to users, such as order status notifications and alerts, improving communication and ensuring users are informed.
- **Reporting and Analytics**: Generates reports on customer usage, order volumes, and system performance, which admins can access to make strategic decisions.

5. **Security Layer**:
    - **Authentication and Authorization**: Implements secure login and role-based access controls, ensuring that only authorized users access the system.
    - **Data Encryption**: Sensitive data, including user credentials and file uploads, is encrypted for secure storage and transfer.

This layered architecture promotes maintainability, scalability, and efficient data flow, ensuring that the Xerox Management System is robust and user-focused.

# 3.2 ER DIAGRAM



# 3.3 NORMALIZATION

To ensure data efficiency, minimize redundancy, and maintain data integrity, the **Xerox Management System** database can be normalized up to the **Third Normal Form (3NF)**. Here's a step-by-step normalization process, focusing on key tables:

1. **First Normal Form (1NF):**
    - **Objective**: Eliminate repeating groups and ensure each field contains atomic values (single values only).
    - **Example**: Ensure each table has a primary key and that no columns contain multiple values in a single field.
2. **Second Normal Form (2NF):**
    - **Objective**: Eliminate partial dependencies, ensuring that non-key attributes are fully dependent on the primary key.
    - **Example**: In an "Orders" table, if OrderID is the primary key, all order details (e.g., OrderDate, OrderStatus) should depend on OrderID. We also separate order items into their own table, with each item linking back to OrderID.
3. **Third Normal Form (3NF):**
    - **Objective**: Eliminate transitive dependencies, ensuring that non-key attributes depend only on the primary key.
    - **Example**: In a "Users" table, if UserID is the primary key, attributes like UserName and UserEmail should only depend on UserID. Any data such as RoleName or RoleDescription should be moved to a separate "Roles" table to avoid redundancy.

## Benefits of Normalization

- **Reduces Redundancy**: Ensures data such as roles and order items are not duplicated, saving storage space and reducing data inconsistencies.
- **Increases Data Integrity**: Maintains accurate, related data by linking through primary and foreign keys.
- **Improves Query Efficiency**: With data stored in smaller, related tables, queries execute faster and with better performance.

This normalization structure supports efficient data management within the Xerox Management System, facilitating accurate and scalable handling of user, document, and order data.
Normalization is a vital process in database design that organizes data into efficient, non-redundant

structures. In the Xerox Management System, normalization ensures that information such as customer details, order records, and employee data is stored without unnecessary duplication, which enhances both storage efficiency and data integrity. By progressing through the normalization stages—First, Second, and Third Normal Forms (1NF, 2NF, and 3NF)—the database design eliminates redundant data and dependency issues. For instance, customer data and order records are separated into distinct tables. This allows customer information to be updated in a single location, which simplifies management and avoids inconsistencies.

In the Xerox Management System, normalization is used to organize the database to enhance data integrity and streamline data retrieval for a more efficient workflow. By applying normalization, data such as customer information, PDF uploads, and employee records are structured to eliminate redundancy and ensure accuracy across the system. For instance, in the relationship between customers and orders, customer data is stored in a separate table from order details, allowing updates to customer information in one place without duplicating data in multiple records. This approach ensures that each order record remains uniquely linked to a customer through a foreign key, which simplifies the retrieval of all orders made by a specific customer.

# 4.PROGRAM CODE

## Login_page code:

```
<div class="container" id="signup" style="display:none;">
    <h1 class="form-title">Register</h1>
    <form method="post" action="register.php">
     <div class="input-group">
        <i class="fas fa-user"></i>
        <input type="text" name="fName" id="fName" placeholder="First Name" required>
        <label for="fname">First Name</label>
     </div>
     <div class="input-group">
         <i class="fas fa-user"></i>
         <input type="text" name="lName" id="lName" placeholder="Last Name" required>
         <label for="lName">Last Name</label>
     </div>
     <div class="input-group">
         <i class="fas fa-envelope"></i>
         <input type="email" name="email" id="email" placeholder="Email" required>
         <label for="email">Email</label>
     </div>
     <div class="input-group">
         <i class="fas fa-lock"></i>
         <input type="password" name="password" id="password" placeholder="Password"
required>
         <label for="password">Password</label>
     </div>
     <input type="submit" class="btn" value="Sign Up" name="signUp">
    </form>
    <p style="text-align: center" class="or">
     ----------or--------
    </p>
    <div class="links">
     <p>Already Have Account ?</p>
```

```
      <button id="signInButton">Sign In</button>
    </div>
  </div>
```

## Sign_page:

```
        <div class="container" id="signIn" style="display:none;">
      <h1 class="form-title">Sign In</h1>
      <form method="post" action="register.php">
       <div class="input-group">
          <i class="fas fa-envelope"></i>
          <input type="email" name="email" id="email" placeholder="Email" required>
          <label for="email">Email</label>
       </div>
       <div class="input-group">
          <i class="fas fa-lock"></i>
          <input type="password" name="password" id="password" placeholder="Password"
required>
          <label for="password">Password</label>
       </div>
       <input type="submit" class="btn" value="Sign In" name="signIn">
      </form>
      <p style="text-align: center" class="or">
       ----------or--------
      </p>
      <div class="links">
       <p>Don't have account yet?</p>
       <button id="signUpButton">Sign Up</button>
      </div>
    </div>
```

## Owner login_page:

```
        <div  class="container" id="owner_login" style="display:none;">
      <h2 style="text-align: center;padding-bottom: 25px;">Xerox management System</h2>
      <h3 style="text-align:center;">Owner</h3>
      <form method="post" action="register.php">
        <div class="input-group">
```

```
            <i class="fas fa-envelope"></i>
            <input type="email" name="email" id="email" placeholder="Email" required>
            <label for="email">Email</label>
        </div>
        <div class="input-group">
            <i class="fas fa-lock"></i>
            <input type="password" name="password" id="password" placeholder="Password"
required>
            <label for="password">Password</label>
        </div>
        <input type="submit" class="btn" value="Sign In" name="owner_signin">
      </form>
    </div>
```

## Owner Homepage:

```
        <?php
        include 'connect.php';
        $sql = "SELECT id, fname, pdf_name, pdf, colour, side, copies, amount, paid FROM
        main_db";
        $result = $conn->query($sql);
        if ($result === false) {
         echo "Error: " . $conn->error;
         exit;
        }
        ?>
        <body>
            <!-- Title Box (Header) -->
            <div class="title-box">
                <div class="greeting">Welcome, Admin!</div>
                <a href="logout.php">
```

```
            <button class="logout-button">Logout</button>
        </a>
    </div>

    <!-- Sidebar -->
    <div class="sidebar">
        <button onclick="window.location.href='manage_orders.php'">Manage
Orders</button>
        <button onclick="window.location.href='manage_users.php'">Manage Users</button>
        <button onclick="window.location.href='view_files.php'">Uploaded Files</button>
        <button onclick="window.location.href='view_reports.php'">View Reports</button>
    </div>

    <!-- Content Section -->
    <div class="content">
        <div class="section">
            <h2>Uploaded PDF Files</h2>
            <!-- Table displaying all uploaded PDF files -->
            <?php if ($result->num_rows > 0): ?>
                <table>
    <thead>
        <tr>
            <th>ID</th>
            <th>Customer Name</th>
            <th>PDF Name</th>
            <th>Colour</th>
```

```
            <th>Side</th>
            <th>Copies</th>
            <th>Amount</th>
            <th>Paid</th>
            <th>Download</th>
        </tr>
    </thead>
    <tbody>
        <?php while($row = $result->fetch_assoc()): ?>
            <tr>
                <td><?php echo htmlspecialchars($row['id']); ?></td>
                <td><?php echo htmlspecialchars($row['fname']); ?></td>
                <td><?php echo htmlspecialchars($row['pdf_name']); ?></td>
                <td><?php echo htmlspecialchars($row['colour']); ?></td>
                <td><?php echo htmlspecialchars($row['side']); ?></td>
                <td><?php echo htmlspecialchars($row['copies']); ?></td>
                <td><?php echo htmlspecialchars($row['amount']); ?></td>
                <td><?php echo htmlspecialchars($row['paid']); ?></td>
                <!-- Download link that points to download.php -->
                <td><a href="download.php?id=<?php echo $row['id']; ?>">Download</a></td>
            </tr>
        <?php endwhile; ?>
    </tbody>
</table>
```

```
            <?php else: ?>
                <p>No uploaded PDF files found.</p>
            <?php endif; ?>
        </div>
    </div>
</body>
</html>
```

## User Home_page:

```
<body>
    <div class="title-box">
        <div class="greeting">
            Hello <?php
            if (isset($_SESSION['email'])) {
                $email = $_SESSION['email'];
                $query = mysqli_query($conn, "SELECT users.* FROM users WHERE
users.email='$email'");
                while ($row = mysqli_fetch_array($query)) {
                    echo $row['firstName'] . ' ' . $row['lastName'];
                }
            }
            ?>!
        </div>
        <a href="logout.php">
            <button class="logout-button">Logout</button>
        </a>
    </div>

    <div class="sidebar">
        <button>UPLOADED FILES</button>
        <button>SCHEDULE</button>
```

```
            <button>AMOUNT</button>
        </div>
        <div class="form">
            <h1>Upload Your Files Here</h1>
            <form action="/upload" method="post" enctype="multipart/form-data">
                <input type="text" name="name" placeholder="File name">
                <input type="file" name="pdf_file" accept="application/pdf" required>
                <input class="browse-button" type="submit" value="Upload" name="button">
            </form>
        </div>

    </body>
```

## Connection code:

```
<?php

$host="localhost";
$user="root";
$pass="";
$db="login";
$conn=new mysqli($host,$user,$pass,$db);
if($conn->connect_error){
   echo "Failed to connect DB".$conn->connect_error;
}
?>
```

## Uploading pdf code:

```
<?php
class pdf{
   public static $alerts=[];
   public static function connect()
   {
      $conn=new PDO("mysql:host=localhost;dbname=pdf","root","");
      return $conn;
```

```
    }
    public static function insert($name,$img)
    {
        $add=pdf::connect()->prepare("INSERT INTO pdf_table(id,name,img) VALUES(',?,?)");
        $add->execute(array($name,$img));
        if($add){
            pdf::$alerts[]='Added :)';
        }
        else{
            pdf::$alerts[]='Not added :(';
        }
    }
    public static function select()
    {
        $list=pdf::connect()->prepare("SELECT * FROM pdf_table");
        $list->execute();
        $fetch=$list->fetchAll(PDO::FETCH_ASSOC);
        return $fetch;
    }
}
```

## Script file:

```
const owner_btn=document.getElementById('owner_btn');
const user_btn=document.getElementById('user_btn');
const user_type=document.getElementById('user_type');
const signUpButton=document.getElementById('signUpButton');
const signInButton=document.getElementById('signInButton');
const signInForm=document.getElementById('signIn');
const signUpForm=document.getElementById('signup');
const owner_login=document.getElementById('owner_login');

user_btn.addEventListener('click',function(){
    user_type.style.display="none";
```

```
    signInForm.style.display="block";
})
owner_btn.addEventListener('click',function(){
    user_type.style.display="none";
    owner_login.style.display="block";
})
signUpButton.addEventListener('click',function(){
    signInForm.style.display="none";
    signUpForm.style.display="block";
})
signInButton.addEventListener('click', function(){
    signInForm.style.display="block";
    signUpForm.style.display="none";
```

## Register to database:

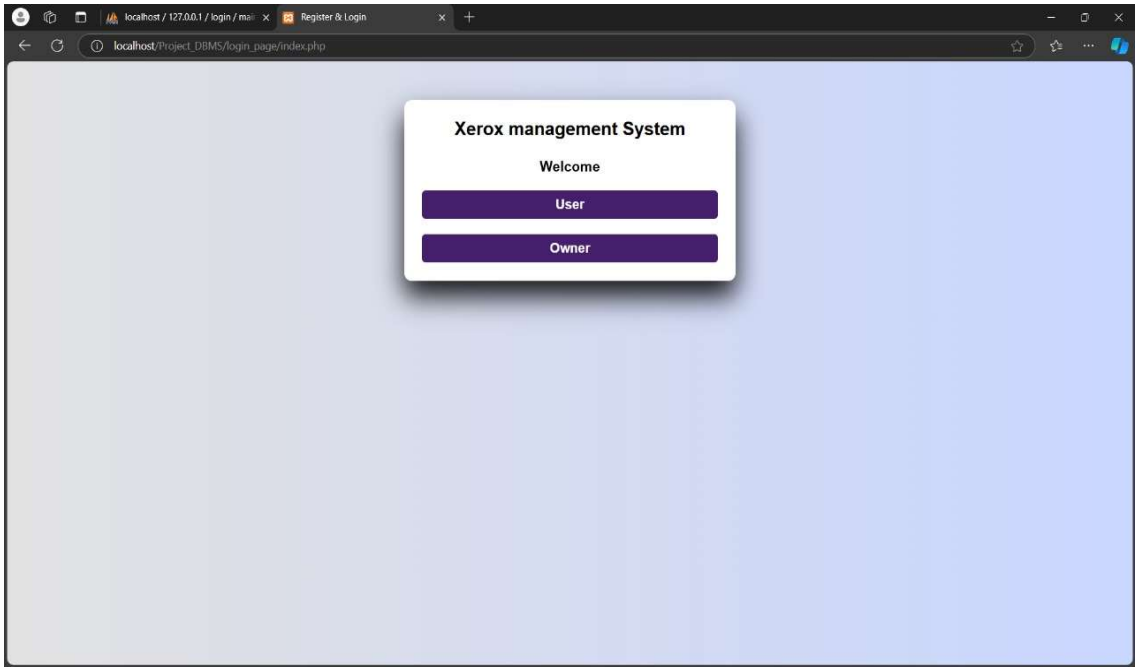
```
<?php
include 'connect.php';
if(isset($_POST['signUp'])){
    $firstName=$_POST['fName'];
    $lastName=$_POST['lName'];
    $email=$_POST['email'];
    $password=$_POST['password'];

     $checkEmail="SELECT * From users where email='$email'";
     $result=$conn->query(query: $checkEmail);
     if($result->num_rows>0){
       echo "Email Address Already Exists !";
     }
     else{
       $insertQuery="INSERT INTO users(firstName,lastName,email,password)
                   VALUES ('$firstName','$lastName','$email','$password')";
          if($conn->query(query: $insertQuery)==TRUE){
```

```
            header(header: "location: index.php");
        }
        else{
            echo "Error:".$conn->error;
        }
    }


}

if(isset($_POST['signIn'])){
  $email=$_POST['email'];
  $password=$_POST['password'];

  $sql="SELECT * FROM users WHERE email='$email' and password='$password'";
  $result=$conn->query(query: $sql);
  if($result->num_rows>0){
   session_start();
   $row=$result->fetch_assoc();
   $_SESSION['email']=$row['email'];
   header(header: "Location: homepage.php");
   exit();
  }
  else{
   echo "Not Found, Incorrect Email or Password";
  }

}

if(isset($_POST['owner_signin'])){
   $email=$_POST['email'];
   $password=$_POST['password'];
```

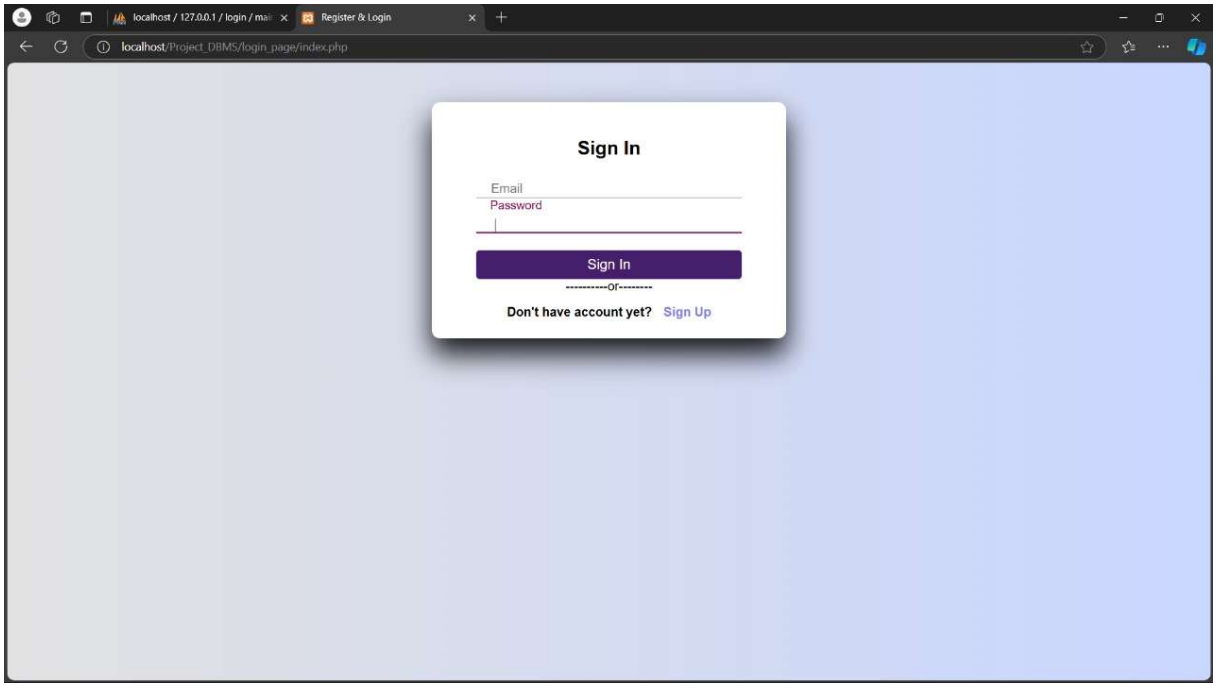
```
    $sql="SELECT * FROM owners WHERE email='$email' and password='$password'";
    $result=$conn->query(query: $sql);
    if($result->num_rows>0){
     session_start();
     $row=$result->fetch_assoc();
     $_SESSION['email']=$row['email'];
     header(header: "Location: homepage.php");
     exit();
    }
    else{
     echo "Not Found, Incorrect Email or Password";
    }

 }
?>
```

# PROJECT SCREENSHOTS

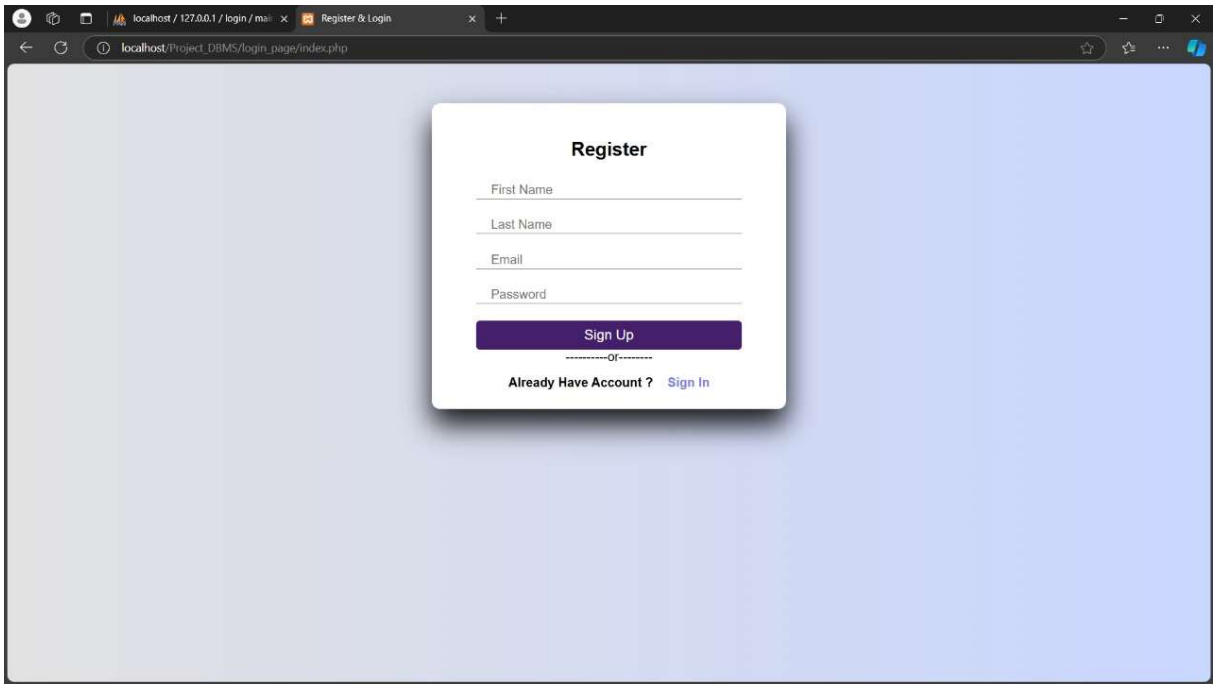
## Role Selection:



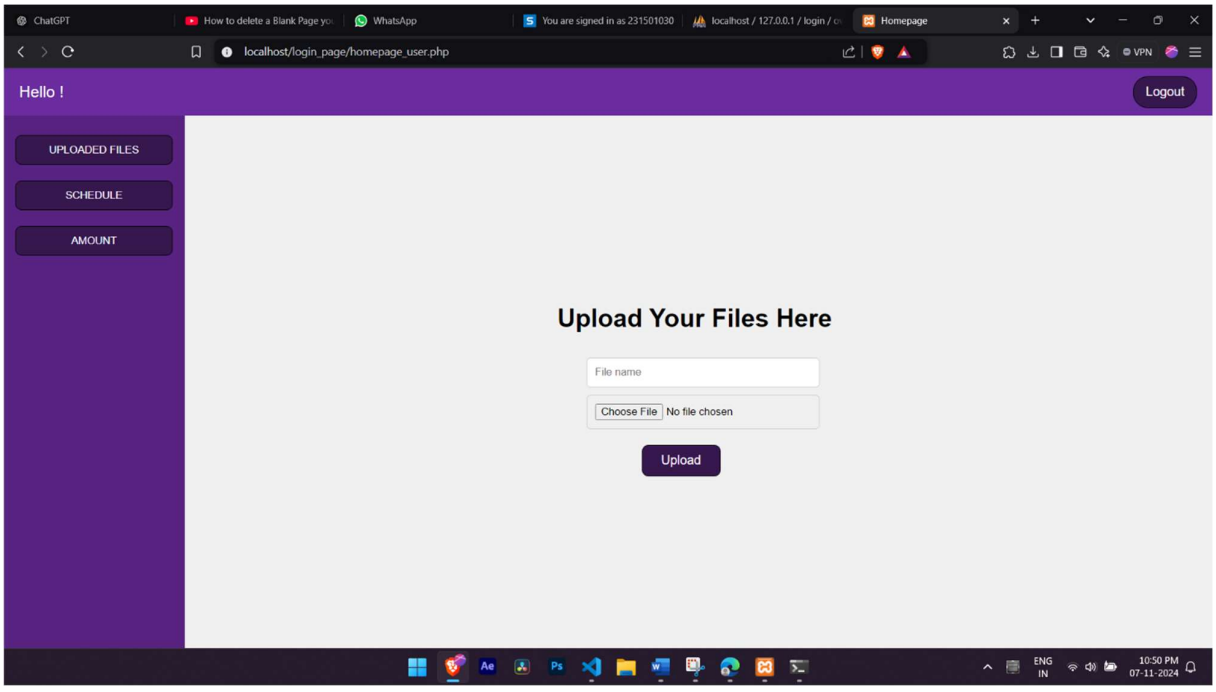

## Login page:



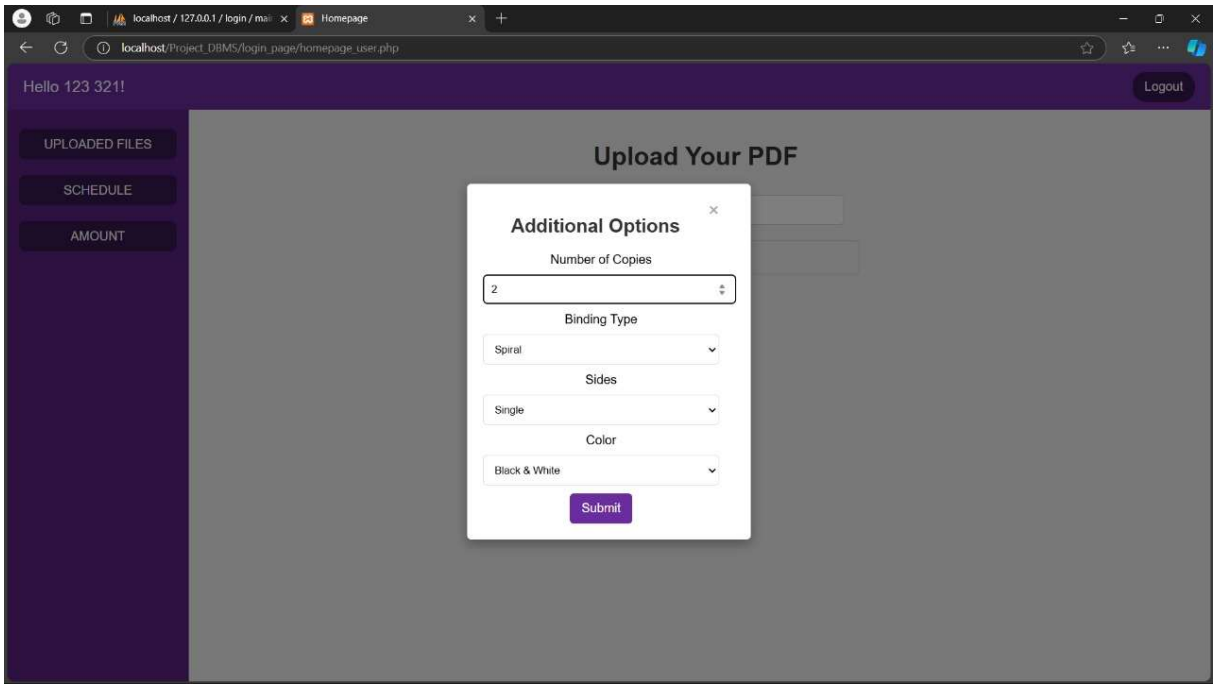
## Sign_up page:



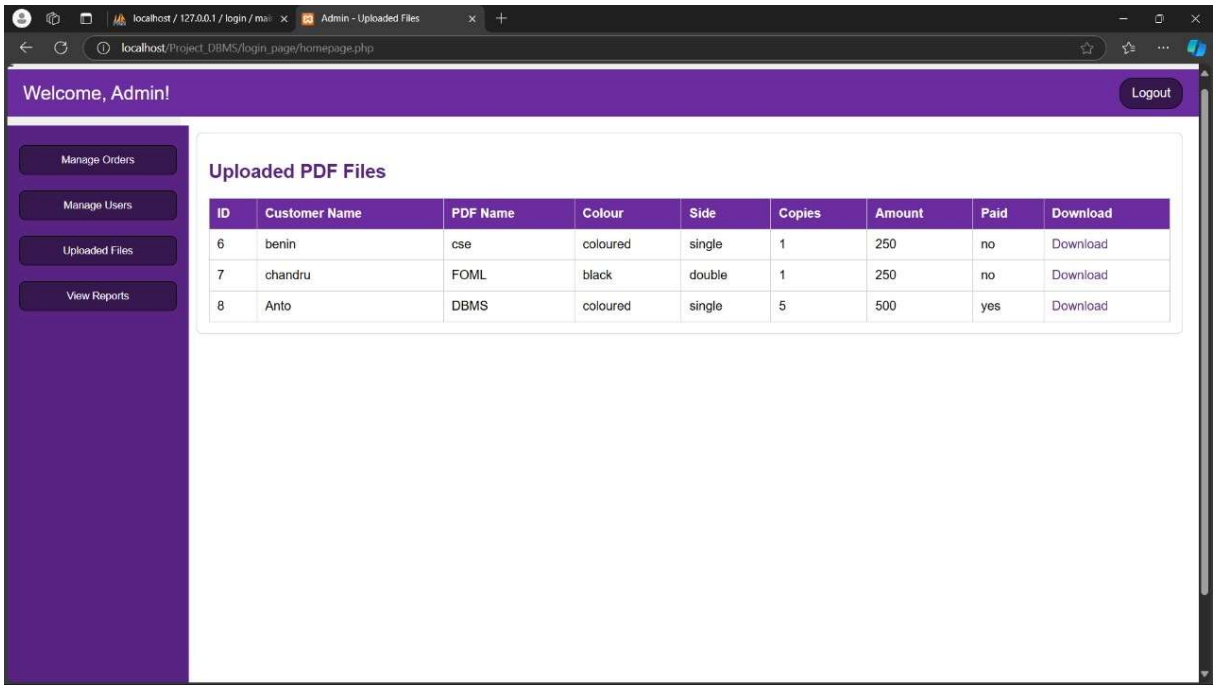

## User Page:



## Popup page:



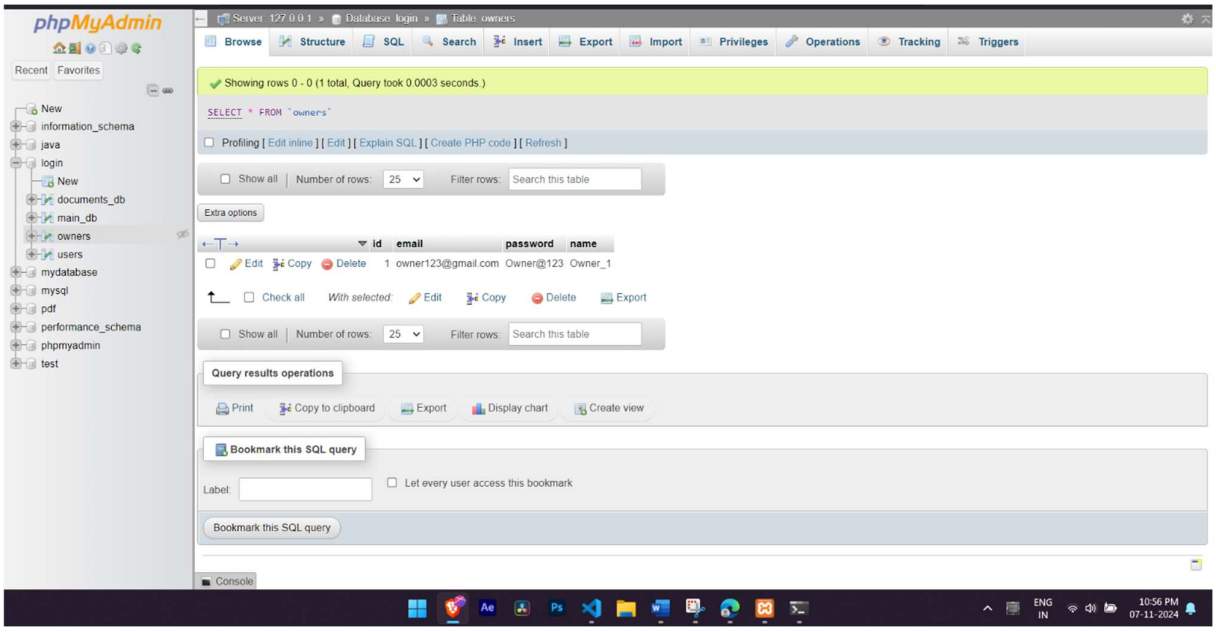

## Owner page:



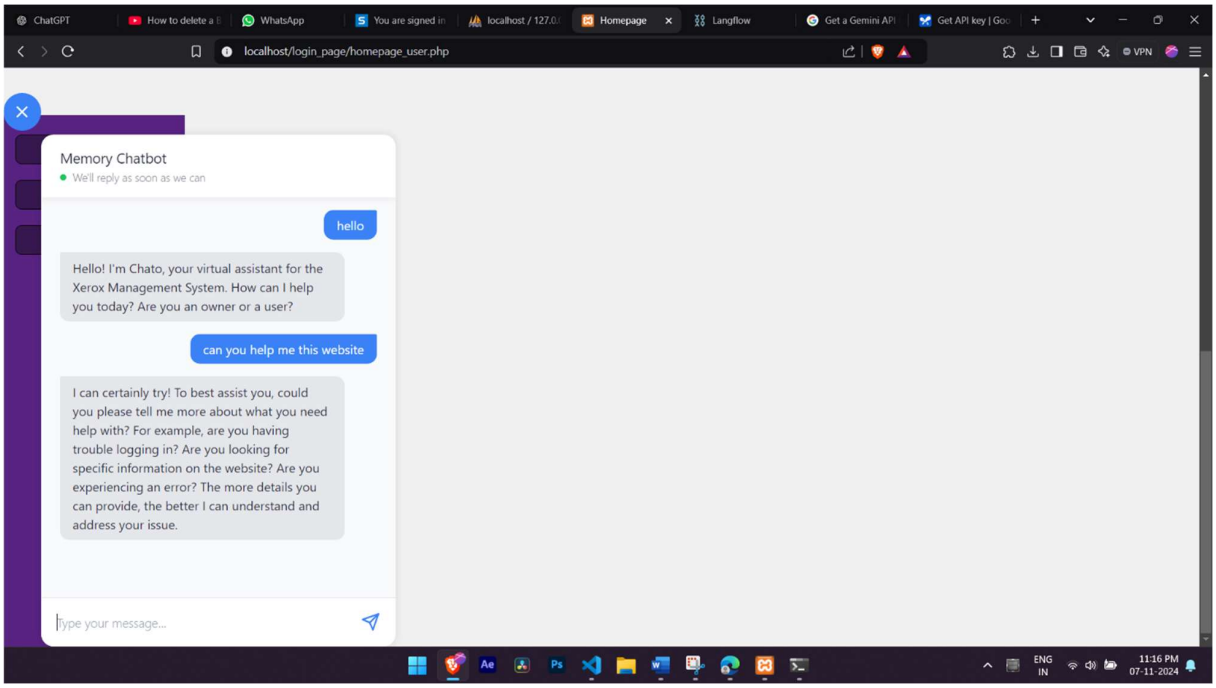
## Main Database:

| # | Name | Type | Collation | Attributes | Null | Default | Comments | Extra | Act |
|---|---|---|---|---|---|---|---|---|---|
| 1 | id | int(4) | | | No | None | | AUTO_INCREMENT | |
| 2 | fname | varchar(25) | utf8mb4_general_ci | | No | None | | | |
| 3 | pdf_name | varchar(25) | utf8mb4_general_ci | | No | None | | | |
| 4 | pdf | varchar(100) | utf8mb4_general_ci | | No | None | | | |
| 5 | colour | varchar(10) | utf8mb4_general_ci | | No | None | | | |
| 6 | side | varchar(25) | utf8mb4_general_ci | | No | None | | | |
| 7 | copies | int(4) | | | No | None | | | |
| 8 | amount | int(4) | | | No | None | | | |
| 9 | paid | varchar(4) | utf8mb4_general_ci | | No | None | | | |

## Database:



## Chatbot Assistant:



# 5.RESULTS AND DISCUSSION

The **Xerox Management System** was designed and implemented to streamline operations for both customers and shop owners, specifically for the management of document printing, order tracking, and inventory control. The following is a detailed discussion of the results based on the system's core functionalities.

## 1. User Experience:

- **Result**: Overall, the system met its objectives of simplifying document printing and order tracking, improving user interactions, and enhancing operational efficiency for shop owners.
- **Discussion:** User feedback has shown that the simplicity of the system greatly enhances the overall experience. Customers found the process of uploading documents and tracking their orders straightforward and hassle-free. Shop owners, on the other hand, appreciated the role-based access control, as it allowed for a clear separation of duties, helping manage both orders and inventory efficiently.

## 2. Chatbot Performance:

- **Result**: The chatbot integration provided real-time responses to user queries, including order status, document uploading guidelines, and service-related inquiries.

- **Discussion**: Users were able to get immediate answers to common questions, reducing the need for direct communication with staff and improving customer satisfaction. The chatbot helped in enhancing the self-service capabilities of the system. However, there were occasional limitations in handling more complex or uncommon queries, which can be improved with machine learning models for more natural conversations.

## 3. Order Management and Tracking:

- **Result:** The system was able to efficiently handle multiple orders, allowing customers to upload their documents and track their progress through various stages.

- **Discussion**: The real-time tracking feature was particularly appreciated by customers, as it gave them transparency regarding the status of their documents. For shop owners, managing and updating order statuses was streamlined, resulting in fewer manual errors and faster processing times. However, as the volume of orders increased, some delays were noted in high-demand periods, suggesting the need for further optimization.

## 4. Inventory Management:

- **Result:** The inventory management feature allowed shop owners to track the usage of printing materials such as paper and ink in real-time.

- **Discussion**: Shop owners found the ability to receive notifications about low stock levels very useful. This proactive feature helped prevent stockouts and improved planning for reorders. Nonetheless, the system's reliance on manual stock entry during high-volume periods can lead to occasional discrepancies, indicating that more automation in stock tracking could be a beneficial next step.

## 5. Data Security:

- **Result**: Role-based access controls were implemented effectively to restrict access to sensitive data. Password encryption and secure login mechanisms ensured the safety of user data.
- **Discussion**: The security measures were found to meet industry standards, ensuring that both customer and shop owner data remained protected. Some users suggested improvements in multi-factor authentication for added security, especially for admin roles, which could further enhance the overall security posture.

## 6. Overall System Effectiveness:

- **Result**: Overall, the system met its objectives of simplifying document printing and order tracking, improving user interactions, and enhancing operational efficiency for shop owners.

- **Discussion**: Users expressed high satisfaction with the Xerox Management System, citing its ease of use, fast processing, and real-time updates. However, some areas for improvement include reducing delays during peak hours and improving the chatbot’s conversational capabilities.

# CONCLUSION

## Conclusion of the Xerox Management System Project

The **Xerox Management System** has proven to be a highly effective tool for managing the document printing process, order tracking, and inventory management. While the system has met its primary goals, some areas such as scalability, chatbot functionality, and performance during high-demand periods could be further optimized to improve the overall user experience. Future updates could include integrating more advanced AI for the chatbot, enhancing reporting features, and ensuring smoother performance during peak usage times.

The **Xerox Management System** has successfully addressed the core challenges of managing document printing orders, inventory, and customer interactions. By integrating user-friendly interfaces, efficient order management, inventory control, and a chatbot for customer support, the system has enhanced the operational efficiency of Xerox shops and improved the overall customer experience.

Through this system, customers benefit from a seamless process for uploading, tracking, and managing their print orders, while shop owners can easily monitor stock levels, track sales, and generate detailed reports. The introduction of role-based access control further ensures that sensitive data is protected, allowing for secure and organized management of information.

However, despite its successes, there are areas for future improvement. The performance during high-traffic periods remains a concern, as delays in order processing and system response times were observed. Additionally, although the chatbot feature provided quick answers to common queries, its ability to handle more complex inquiries is still limited and could benefit from enhancements with machine learning algorithms to improve user interaction.

As the project moves forward, efforts should be focused on improving system scalability, refining the chatbot, and automating certain aspects of inventory management to reduce manual errors. Expanding the reporting and analytics capabilities to include predictive analysis would also empower administrators and shop owners with better decision-making tools.

In conclusion, the **Xerox Management System** is a significant step forward in modernizing the way Xerox shops handle customer orders, inventory, and sales processes. With continuous improvements and scalability, this system has the potential to set a new standard in the document printing industry, offering both efficiency and convenience for shop owners and customers alike.

# 7. REFERENCES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- • **Journal of Information Security and Applications**: Focuses on various aspects of information security, including authentication techniques, security protocols, and role-based access control.
  Link: https://www.journals.elsevier.com/journal-of-information-security-and-applications
- • **International Journal of Information Management**: Explores best practices for document and order management in software systems, focusing on efficiency and scalability.
  Link: https://www.journals.elsevier.com/international-journal-of-information-management
- • **Human-Computer Interaction (HCI) Journal**: Focuses on improving user interfaces for task management and order tracking systems.
  Link: https://www.tandfonline.com/toc/hhci20/current
- • **International Journal of Electronic Commerce**: Discusses online payment systems, security, and transaction management in digital platforms.
  Link: https://www.tandfonline.com/toc/uecj20/current
- • **IEEE Transactions on Software Engineering**: Offers peer-reviewed research on software architecture, system design, and best practices for building scalable, secure systems.
  Link: https://www.computer.org/csdl/journal/tse