

# **SCHOLARSHIP MANAGEMENT SYSTEM REPORT**

## **GROUP MEMBERS:**

NAME:	Muskan Nazeer
STUDENT ID:	SCS-24F-004
NAME:	Fareaa Faisal
STUDENT ID:	CSC-24F-007
NAME:	Umm-e-Habiba
STUDENT ID:	CSC-24F-050
INSTRUCTOR:	Ameen Khowaja
SUBJECT:	DataBase Systems
PROGRAM:	BS-Computer Science
SECTION:	CS-2A

# SCHOLARSHIP MANAGEMENT SYSTEM

## PROJECT REPORT

### **1. Introduction**

The Scholarship Management System (SMS) is a responsive web-based application designed to streamline the scholarship application and management process for students. It allows students to create and manage their profiles, securely log in, and apply for scholarships with ease through an intuitive and mobile-friendly interface. The system also includes an automatic notification feature that alerts students whenever new scholarships are added for which they are eligible, ensuring they never miss an opportunity. This platform enhances accessibility and efficiency, empowering students to focus on their academic goals without administrative delays.

### **2. Objectives**

- Implement a secure user authentication system to facilitate reliable access control for students.
- Develop a responsive and intuitive user interface that ensures seamless interaction across multiple devices.
- Enable comprehensive profile management, allowing students to update personal and academic information efficiently.
- Design a dynamic scholarship listing mechanism that reflects real-time data from the database.
- Integrate an automated notification system to alert students about new scholarships aligned with their eligibility.
- Ensure data validation and maintain data integrity to uphold security standards throughout the application.

### **3. Technologies Used**

- **PHP** — for server-side scripting and handling business logic.
- **MySQL** — as the relational database management system, with the database designed and managed through **XAMPP**.

- **HTML5, CSS3, Tailwind CSS** — for creating a responsive and modern user interface.
- **JavaScript** — for client-side interactivity and form validations.
- **XAMPP** — used as a local server environment to run Apache and MySQL during development.
- **Maillogger** ---- for testing mails

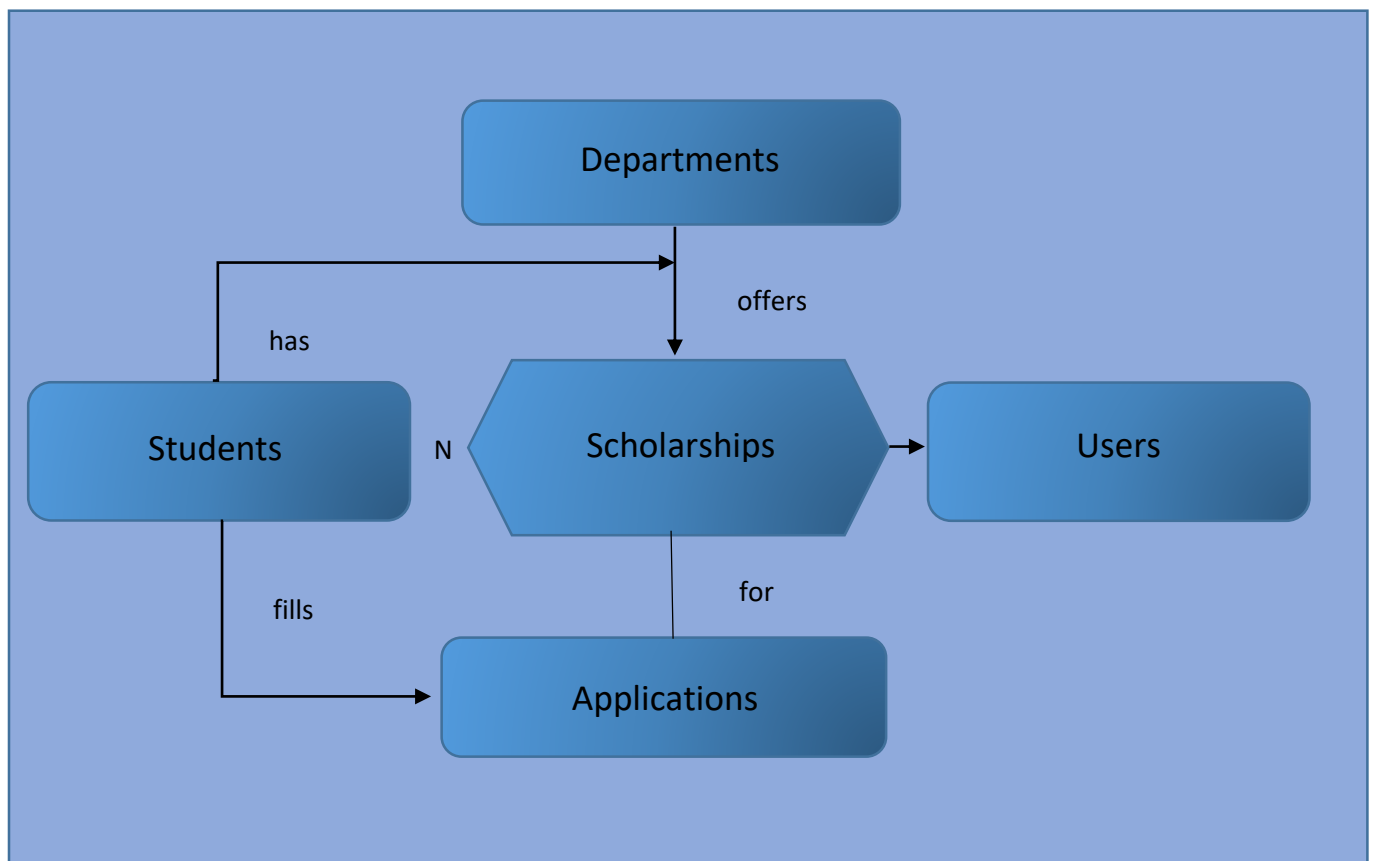
## 4. Database Schema

### Key Tables:

The database consists of **5 main tables** designed to efficiently manage scholarship data and user information:

- **users** — stores login credentials and general user profile details.
- **students** — contains detailed student information linked to users.
- **departments** — holds information about various academic departments.
- **scholarships** — stores data on available scholarships, including eligibility criteria.
- **applications** — records students' applications for scholarships and their statuses.

### ER Diagram:



## Relationships:

Departments → Students: One-to-Many (a department has many students).

Departments → Scholarships: One-to-Many (a department offers many scholarships).

Students → Applications: One-to-Many (a student may fill multiple applications).

Scholarships → Applications: One-to-Many (a scholarship may have multiple applications).

Students ↔ Users: Likely inheritance or association (e.g., "Students are Users").

## 5. Procedure:

### 1. Database Design and Setup

- Design the database schema including tables: users, students, departments, scholarships, and applications with appropriate fields and relationships.
- Use **XAMPP** to host the MySQL database locally.
- Create tables and insert the appropriate data using xampp interface.
- Export the database schema and initial data into an SQL dump file for backup and portability.

### 2. Database Connection

- Establish a secure connection to the MySQL database in PHP using xampp.
- Store database credentials safely in db\_config.php file in your local project.

### 3. User Authentication and Session Management

- Implement user login and signup functionality with validation to ensure secure authentication.
- Use PHP sessions to maintain user login state across pages.
- Restrict access to sensitive pages (like profile update, scholarship application) by checking if a user session exists.
- Provide logout functionality to destroy sessions safely.

## 4. User Profile Management

- Create pages for users to view and update their profile information (email, password, name, student ID, department, semester, CGPA).
- Validate and sanitize all inputs to prevent malicious data entry.
- Use password confirmation and appropriate feedback messages for errors or success.
- Reflect email changes in session variables to maintain continuity.

## 5. Scholarship Management

- Design interfaces to list scholarships dynamically fetched from the scholarships table.
- Allow students to apply for scholarships by filling out detailed forms capturing required information.
- Store applications in the applications table linked to student and scholarship IDs.

## 6. Responsive and User-Friendly Interface

- Use **Tailwind CSS** combined with custom CSS for a modern, responsive, and dark-themed design.
- Implement animated backgrounds and effects for visual appeal.
- Ensure forms and layouts adapt well on different device sizes for mobile-friendly usage.

## Step 7: Implement Email Notification for Eligible Students Using MailLogger

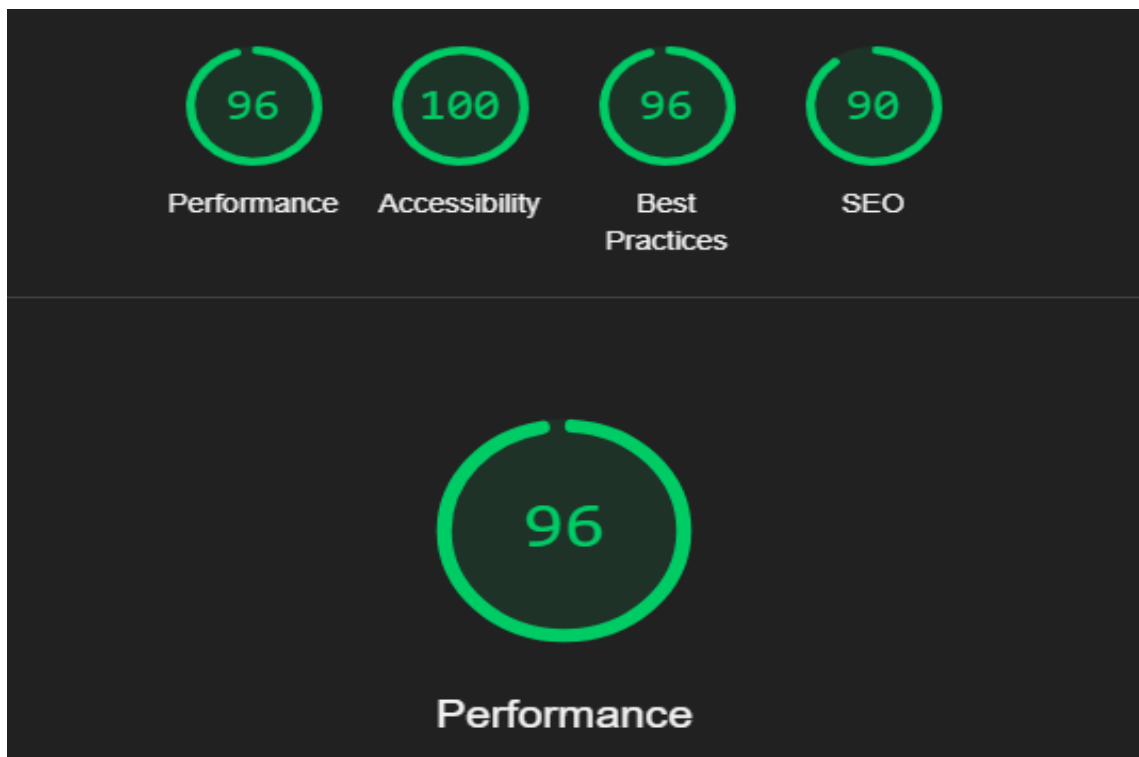
To ensure that students are notified whenever a new scholarship is added that they are eligible for, this step involves integrating **MailLogger** — a lightweight and efficient PHP mailing library. Following are steps to set up mail logger:

- Download the mailLogger setup from its official website and run the installer
- After running the installer, connection will be automatically started now to test it follow the steps below.
- After inserting a new scholarship into the database (e.g., via `add_scholarship.php`), a backend script is triggered.
- This script queries the database to find students whose **department**, **semester**, and **CGPA** match the eligibility criteria of the newly added scholarship.

- For each eligible student, an email is composed detailing the scholarship name, amount, and deadline.
- **MailLogger** is used to send these emails efficiently. It handles SMTP configuration and logs each sent mail, which is useful for debugging and monitoring delivery.
- A success or failure log is optionally stored or displayed for admin tracking (even though no admin dashboard is currently implemented).

After all these steps, our website is fully functional.

## 6. LightHouse Report:



## 7. Conclusion

The Scholarship Management System provides a streamlined and secure platform for students to manage their scholarship applications and personal profiles. The use of PHP and MySQL allows robust backend operations, while Tailwind CSS ensures a clean and responsive front-end design. This system reduces administrative overhead and enhances the scholarship application experience for students.

\*\*\*\*\*