

Wishlist for Future System Enhancements

This list identifies key features and improvements that would increase the security, administrative control, and overall usability of the Classroom Equipment Checkout System in a production environment.

1. Security and User Management

- **Implement a Dedicated Admin Login Interface:** Create a proper front-end login page for administrative users to access the management tools, eliminating the need for staff to access the raw database through phpMyAdmin.
- **Hierarchical User Roles:** Establish separate access levels (Superuser/Admin, Staff/Technician) to manage permissions.
 - **Staff/Technician:** Should only be able to view inventory, check items in/out, and view basic transaction history.
 - **Superuser/Admin:** Should be able to manage accounts, add/retire devices, and view all system reports.
- **In-App Password Management:** Allow students and staff to reset their passwords securely via a front-end form (using email verification), rather than requiring an administrator to manually change passwords in the database.

2. Administrative Tools and Inventory Control

- **Front-End Device Management:** Create an Admin Panel where authorized staff can perform all necessary inventory actions without touching phpMyAdmin:
 - Add new equipment (name, details, status).
 - Edit existing device information (changing a device description).
 - Retire or delete old equipment records.
- **Comprehensive Reporting Dashboard:** Implement a feature to generate real-time usage reports for better asset management. This should include:
 - **Utilization Rate:** Which devices are checked out most frequently.
 - **Overdue/Compliance Report:** A list of students who have not returned equipment by the expected return date.
 - **Student Activity:** Report on total loans per student over a specified time period.
- **Automated Email Notifications:** Integrate an email service (like PHPMailer or similar) to automatically send reminders to students when equipment is due back soon or if an item becomes overdue.

3. Usability and Student Experience

- **Advanced Inventory Search and Filtering:** Add robust search functionality to the "Browse Equipment" tab, allowing students to filter inventory by:
 - Category (Laptops, Cameras, Microphones).
 - Specific keywords ("Canon T7i").
 - Location/Room number (if applicable).

- Complete Transaction History: On the "My Items" tab, provide students with a full audit log of all their past transactions (checked out and returned items), not just active loans.
- Simplified Checkout Flow: Streamline the checkout process by allowing students to perform a rapid checkout using a single identifier, such as scanning a student ID or a device barcode, instead of selecting from a dropdown menu.