Installation Guide

This guide explains how to install and set up the Amandla High School Locker Booking System on a computer.
It covers system requirements, database setup, and steps for running the application for both administrators and parents.

1. System Requirement

Before installation, ensure the following software and hardware are available:

Hardware Requirements:

- Minimum 4 GB RAM
- 1.5 GHz Processor or higher
- 500 MB of free disk space
- Internet or local network connection (for database access)

Software Requirements:

- Operating System: Windows 10 / 11, macOS, or Linux
- Programming Environment: Python 3.10 or later
- Database Management System: MySQL / SQLite
- Required Python Libraries:
    - tkinter (for GUI)
    - mysql.connector or sqlite3 (for database connection)
    - pandas (for data reports)
    - reportlab (for exporting reports as PDFs)

2. Download the System Files

1. Obtain the installation package from the developer (ZIP file or GitHub repository).
2. Extract the files into a folder named LockerBookingSystem on your computer.
   Example:
3. C:\Users\Admin\LockerBookingSystem

The folder should contain:

- main.py — the main application file

- login.py — login interface
- admin_dashboard.py — admin GUI and management functions
- parent_dashboard.py — parent GUI for locker booking
- database_setup.sql — script to create the database and tables
- assets/ — optional folder containing images, icons, and CSS styling

3. Install Python and Dependencies

1. Download and install Python 3.10 or later from https://www.python.org/downloads.
2. During installation, check the box "Add Python to PATH".
3. Open Command Prompt (Windows) or Terminal (Mac/Linux).
4. Navigate to your system folder:
5. cd C:\Users\Admin\LockerBookingSystem
6. Install the required libraries by running:
7. pip install mysql-connector-python pandas reportlab

4. Set Up the Database

Option 1: Using MySQL

1. Open phpMyAdmin or MySQL Workbench.
2. Create a new database named:
3. amandla_locker_system
4. Open the file database_setup.sql in your editor and run the script to create all tables:
    - Parents
    - Students
    - Lockers
    - Bookings
    - Admins
5. Import the provided CSV or SQL data file (with sample parent and student data).

Option 2: Using SQLite

1. No installation required.
2. The system automatically generates locker_system.db the first time it runs.
3. Data will be stored locally in the same directory.

5. Configure Database Connection

Open the file config.py and set your database credentials:

```
# Example for MySQL
DB_HOST = "localhost"
DB_USER = "root"
DB_PASSWORD = "yourpassword"
DB_NAME = "amandla_locker_system"
```

If using SQLite:

```
DB_NAME = "locker_system.db"
```

Save and close the file.

6. Run the System

1. Open Command Prompt or Terminal.
2. Navigate to the project folder:
3. cd C:\Users\Admin\LockerBookingSystem
4. Run the system using:
5. python main.py
6. The Login Window will appear.
    o Parent users select "Parent" and log in to access the Locker Booking page.
    o Administrators select "Administrator" to open the Management Dashboard.

7. Verify Installation

Once logged in:

- Parents can view available lockers and make bookings.
- Admins can manage lockers, update payment status, and generate reports.

If all functions load without errors, the installation is complete.

8. Troubleshooting Tips

Problem	Possible Cause	Solution
"Database connection failed"	Incorrect credentials	Check config.py and verify MySQL settings
"Module not found"	Missing Python libraries	Run pip install -r requirements.txt
Application won't open	Python not added to PATH	Reinstall Python and check the PATH option
Data not saving	Database not created	Re-run database_setup.sql script

9. System Uninstallation

1. Delete the LockerBookingSystem folder.
2. If using MySQL, drop the database:
3. DROP DATABASE amandla_locker_system;
4. Remove unnecessary Python libraries (optional):
5. pip uninstall mysql-connector-python pandas reportlab

End of Installation Guide

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