

# Self-Intensive Training on Full Stack Development

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**Seat No:** 371

**Project ID:** 11

**Project Title:** Bulk Mail Blocking/Unblocking

**Domain:** Students Affairs

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## **Problem Statement:**

Currently, the process of blocking or unblocking student email IDs for mass communication is inefficient and time-consuming. This is because it likely involves manual manipulation of email lists or contacting IT support for each individual student.

This inefficiency leads to several problems:

- **Delays in communication:** Important information or announcements may be delayed in reaching students due to the time required for manual blocking/unblocking.
- **Increased workload for staff:** Staff may be burdened with repetitive tasks of managing student email access for bulk communication.
- **Potential for errors:** Manual processes are prone to human error, which could result in students being accidentally blocked or unblocked.

To address these issues, we propose the development of a secure and user-friendly portal system that allows authorized persons to efficiently block and unblock student email IDs for bulk communication purposes.

## **Project Description:**

Build a portal system to block/unblock bulk BIT email ID of the students.

## **Project Requirements:**

Here are some initial project requirements for developing a student email blocking/unblocking portal system:

## **Functional Requirements:**

### **➤ User Management:**

- ✓ The portal should allow for the management of user accounts with different access levels (e.g., administrator, department head).

### **➤ Student Management:**

- ✓ The system shall enable uploading of student lists in a standard format (e.g., CSV) for bulk blocking/unblocking.

### **➤ Blocking/Unblocking Functionality:**

- ✓ The portal shall provide a user-friendly interface for selecting students and applying blocking/unblocking actions.
- ✓ The portal shall clearly indicate the current status (blocked/unblocked) of each student's email address.
- ✓ The portal should offer the ability to schedule blocking/unblocking actions for future dates.

## **Non-Functional Requirements:**

### **➤ Security:**

- ✓ The system shall be secure and compliant with relevant data privacy regulations.
- ✓ User access and student data must be protected with appropriate security measures.

### **➤ Performance:**

- ✓ The system shall be responsive and handle bulk actions efficiently without significant delays.

### **➤ Scalability:**

- ✓ The system should be scalable to accommodate a growing number of students and users.

### **➤ Usability:**

- ✓ The system interface should be user-friendly and intuitive for authorized persons with varying levels of technical expertise.

### **➤ Additional Considerations:**

- ✓ Integration with existing email infrastructure.
- ✓ User training materials on how to utilize the portal system effectively.
- ✓ Development of a disaster recovery plan to ensure system availability in case of outages.

This is a starting point, and the specific requirements may evolve as the project progresses and stakeholders are further consulted.

## Technical Components:

Component	Tech Stack
Frontend	<ul style="list-style-type: none"><li>• HTML</li><li>• CSS</li><li>• JavaScript</li></ul>
Backend	<ul style="list-style-type: none"><li>• Linux</li><li>• Apache Web Server</li><li>• PHP with Laravel framework</li></ul>
Database	<ul style="list-style-type: none"><li>• MySQL</li></ul>
API	<ul style="list-style-type: none"><li>• REST Ful services</li></ul>

## LAMP Stack:

The **LAMP stack (Linux, Apache, MySQL, PHP)** is a popular and powerful combination for developing web applications. Here's a breakdown of how you can build your **bulk mail blocking/unblocking portal** using LAMP:

### ➤ Setting Up the LAMP Stack:

- ✓ **Install LAMP:** I am preferring XAMPP Control Panel, Visual Studio code.
- ✓ **Design:** Use MySQL to create a database to store candidate information. Design tables with relevant fields like Mail ID, Password, ID etc.

### ➤ Web Development with PHP:

- ✓ **Develop the Website:** Use PHP to build the website's functionalities, which can provide a foundation for user authentication, routing, and database interaction.

➤ **User Interface (UI) Design:**

- ✓ **HTML & CSS:** Use HTML to structure the website's content and CSS to style the visual elements.
- ✓ **User-Friendly Interface:** Design an intuitive interface for admin to easily navigate and manage candidate data. Consider using forms, tables, and clear labelling for data fields.

➤ **Security Considerations:**

- ✓ **User Authentication:** Implement a secure login system using PHP.
- ✓ **Regular Backups:** Implement a backup system for your database and website files to ensure data recovery in case of emergencies.

➤ **Deployment:**

- ✓ **Web Server Configuration:** Configure your web server (Apache) to serve the website files and interact with the MySQL database.
- ✓ **Testing & Deployment:** Thoroughly test the website functionalities before deploying it to a live environment. Consider user acceptance testing to ensure it meets your needs.

➤ **Limitations of LAMP Stack:**

While LAMP is a powerful choice, you might consider alternatives for specific needs:

- ✓ **Complexity:** Building a complex application from scratch requires significant development expertise.
- ✓ **Security:** Maintaining security requires ongoing vigilance and updates.

## **Workflow:**

This workflow outlines the process for authorized personnel to utilize the student email blocking/unblocking portal system:

### **1. User Login:**

- ✓ Authorized personnel access the portal using their email and password.

### **2. Student Selection:**

- ✓ Users can choose individual students or select groups based on pre-defined criteria (e.g., department, year).
- ✓ Users can upload a CSV file containing a list of students email addresses for bulk actions.

### **3. Action Selection:**

- ✓ The user specifies whether to block or unblock the selected student email addresses.
- ✓ An option to blocking/unblocking for a future date and time may be enabled.

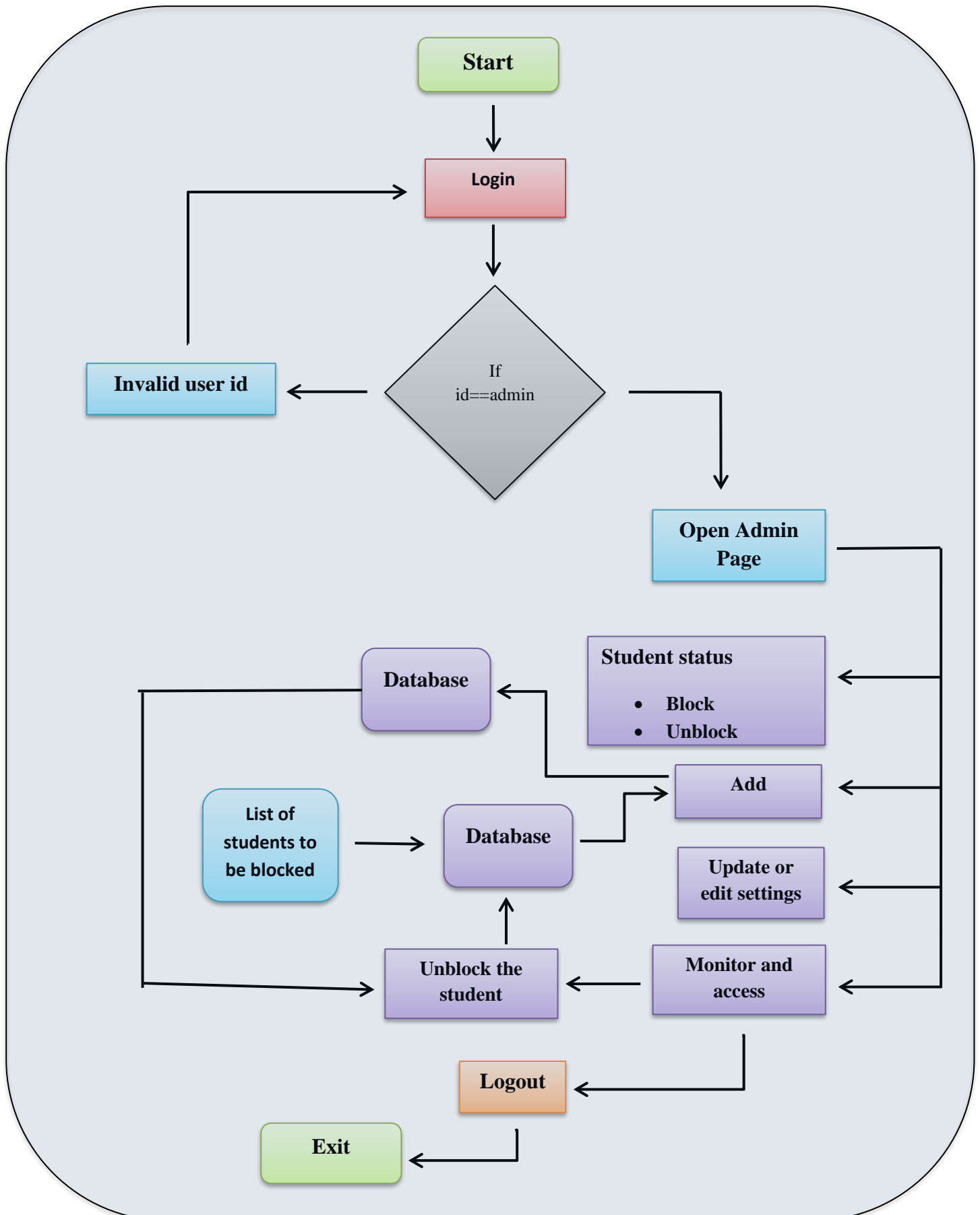
### **4. Confirmation and Processing:**

- ✓ The system displays a confirmation screen summarizing the selected students and the chosen action (block/unblock).
- ✓ Upon confirmation, the system executes the blocking/unblocking action for the designated students.

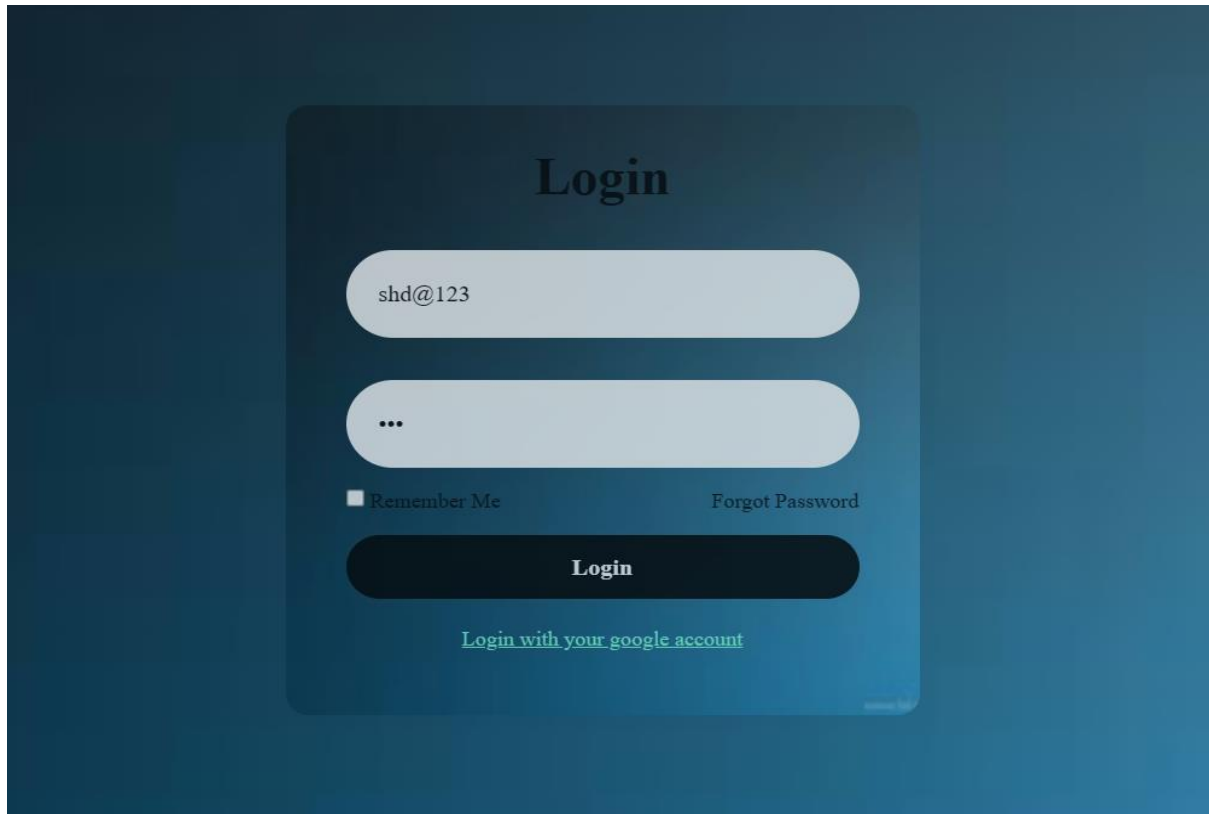
## **Additional Considerations:**

- ✓ The system may provide functionalities for searching and filtering students to assist with specific selections.
- ✓ Users may be able to save frequently used student groupings for quicker selection in future tasks.
- ✓ The system should display clear notifications and informative messages throughout the workflow to guide users and confirm actions.

## Flowchart:



Login page:



The login page features a dark blue background with a central white rounded rectangle containing the login form. The form includes a title 'Login', an email input field with 'shd@123', a password input field with three dots, a 'Remember Me' checkbox, a 'Forgot Password' link, a 'Login' button, and a 'Login with your google account' link.

**Login**

shd@123

...

☐ Remember Me [Forgot Password](#)

**Login**

[Login with your google account](#)

Admin's Dashboard:



The admin dashboard has a dark blue header with the text 'BANNARI AMMAN INSTITUTE OF TECHNOLOGY' and 'Stay Ahead'. The main content area is white and contains links to 'Bannari Amman Institute Of Technology' and 'Import CSV'. The footer is dark blue and contains the institute's name, phone number, and address.

**BANNARI AMMAN INSTITUTE OF TECHNOLOGY**

**Stay Ahead**

Click on the link given below to know more about BIT



[Bannari Amman Institute Of Technology](#)

Click on the link given below to import CSV file

[Import CSV](#)

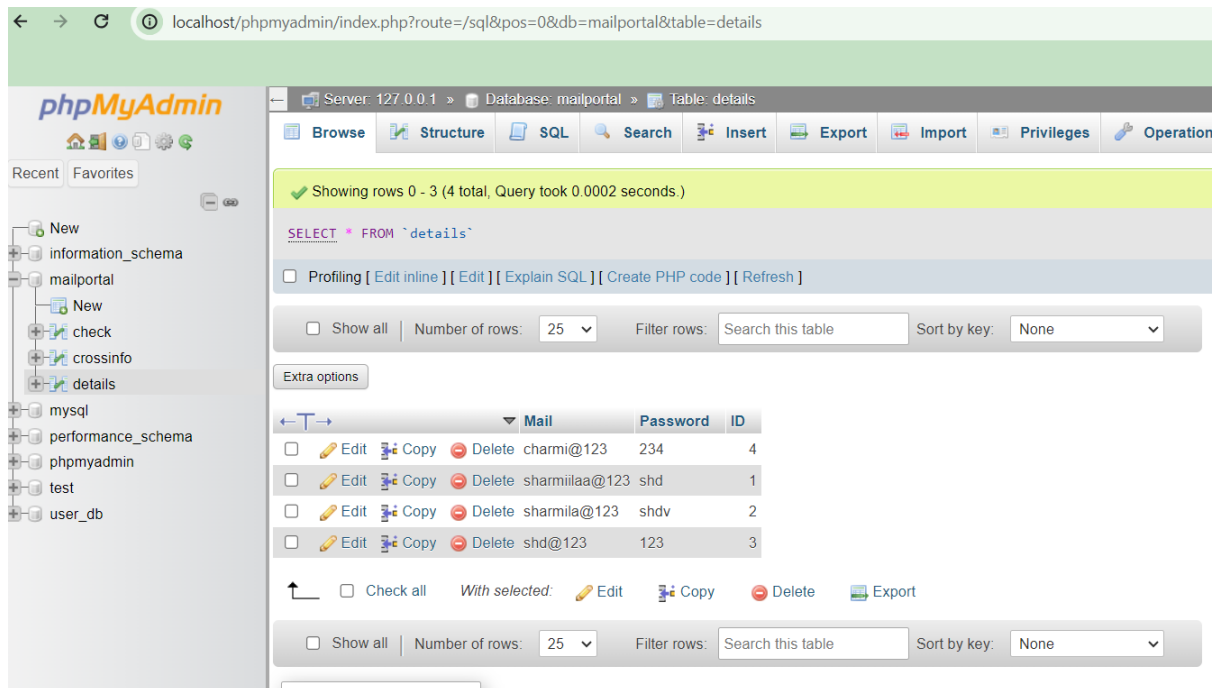
 **Bannari Amman Institute Of Technology**

 **04295 226585**

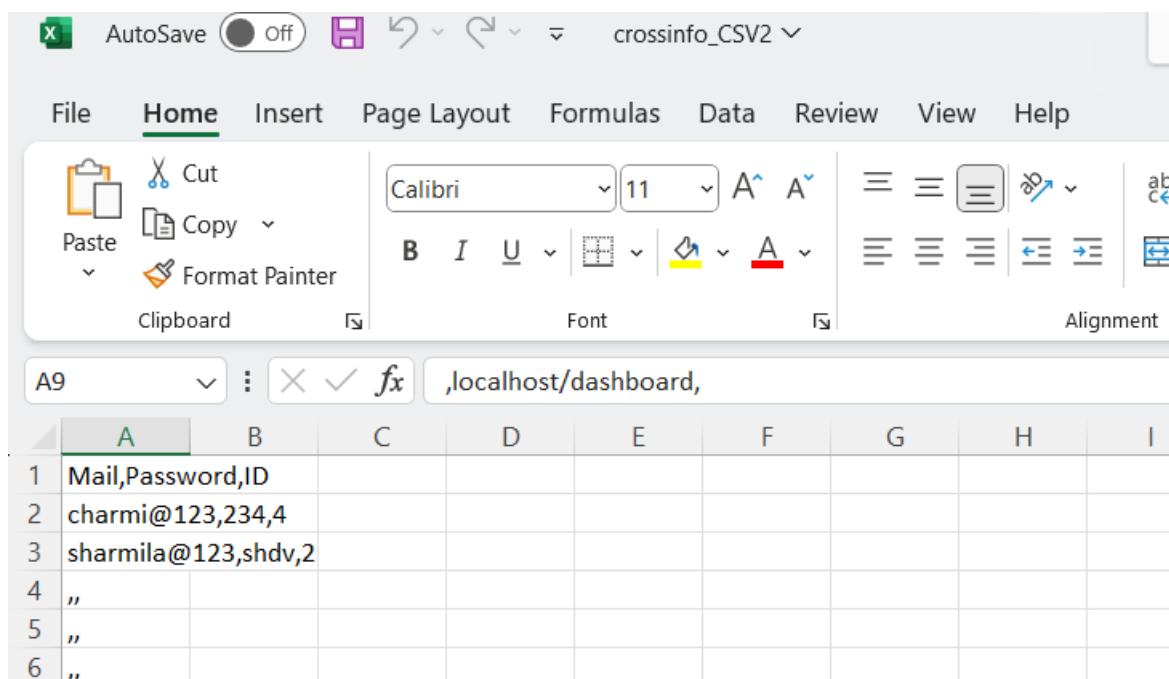
Sathy - Bhavani State Highway, Alathukombai, Post, Sathyamangalam, Tamil Nadu 638401



Sample list of all student ID's:



Sample CSV file:



Sample list of ID's to be blocked or unblocked:

The screenshot shows the phpMyAdmin interface. On the left is a sidebar with a tree view of databases and tables. The main area displays the 'crossinfo' table from the 'mailportal' database. A message at the top states: 'Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are disabled.' Below this, a green status bar indicates 'Showing rows 0 - 1 (2 total, Query took 0.0002 seconds.)'. The SQL query 'SELECT \* FROM `crossinfo`' is shown. Below the query are links for 'Profiling', 'Edit inline', 'Edit', 'Explain SQL', 'Create PHP code', and 'Refresh'. A control bar shows 'Show all', 'Number of rows: 25', and a 'Filter rows' search box. An 'Extra options' button is also present. The table data is as follows:

Mail	Password	ID
charmi@123	bit	4
sharmila@123	bit	2

At the bottom, another control bar shows 'Show all', 'Number of rows: 25', and a 'Filter rows' search box.