



# SOFTWARE USER MANUAL

- Timetable and Resource Management System -

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# Introduction

TTLABS (Time Table Labs) is a web based application, designed to streamline timetable and resource management within Curtin University academic environments. This comprehensive guide aims to acquaint you with the functionalities of our platform, providing a thorough understanding of its operation and utility. This manual is organised into distinct sections delineating the application's features, troubleshooting guidance, best practices and frequently asked questions.

## System Overview

The TTLABS web application includes the following functionalities:

- User Management
- Timetable Generation
- Session Reschedule
- Hall and Lab Management
- Reschedule Report Generation

## System Requirements

TTLABS can be accessed via any personal computer with internet connectivity

## Install Instructions

Open your preferred web browser and navigate to the TTLABS website

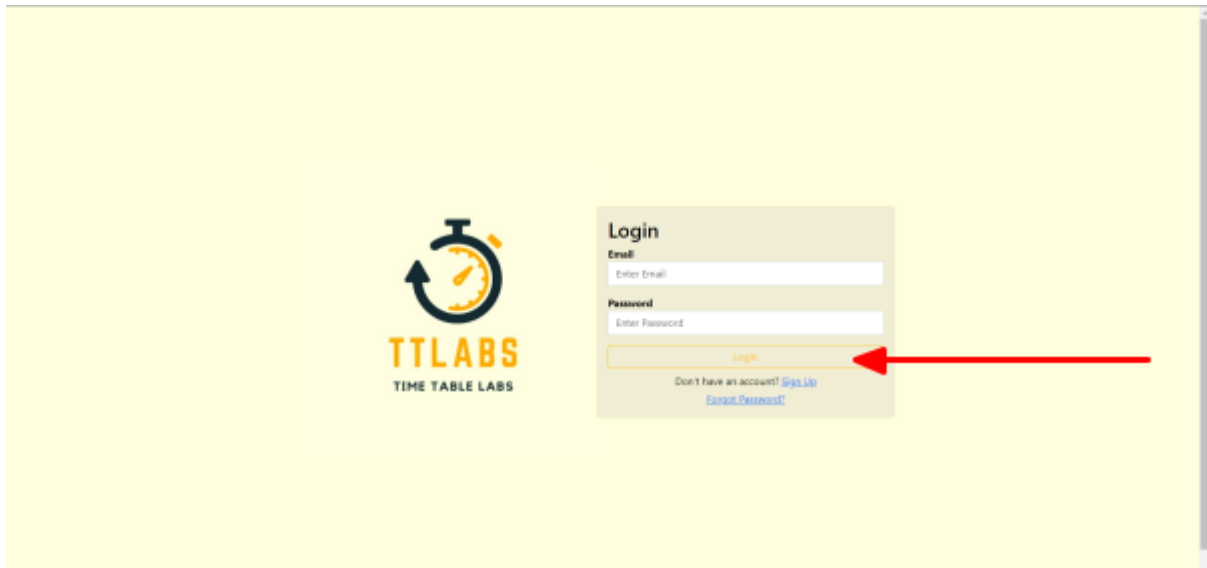
# Features of the software

The above functionalities are limited according to the user role. The login / sign up are common features for both groups of users ( admin and lecturers). Meanwhile the other functionalities accessibility will depend on the permissions user roles have within the system.

## Common Features

### Login Page

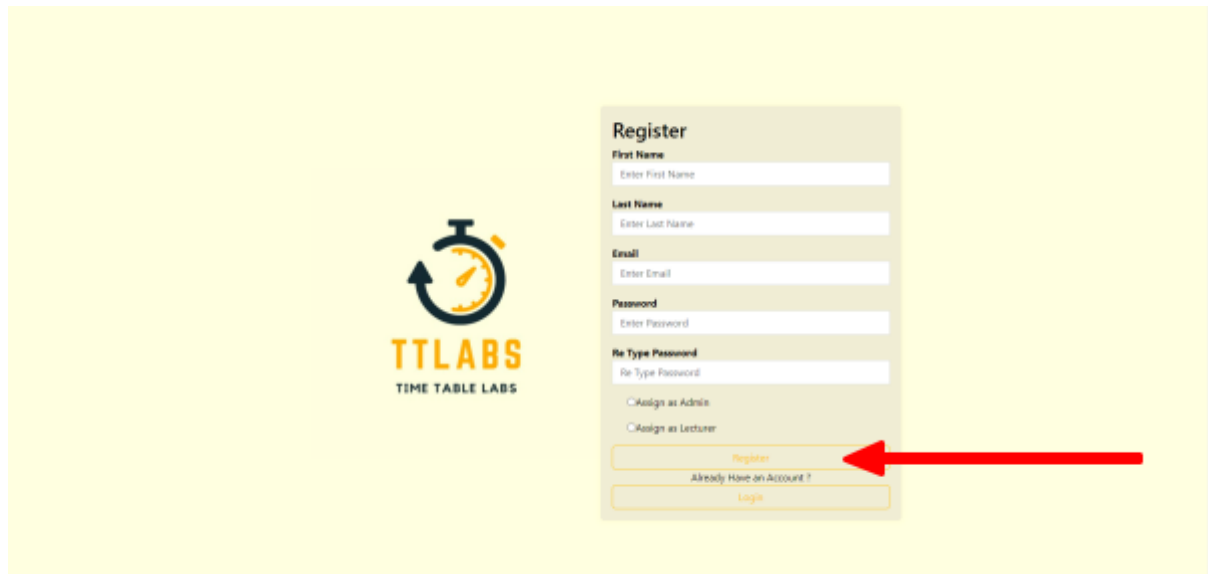
- ❖ To Login,
  - If you are an existing user, you can log in by entering **User Email** and **Password**.
  - If you are a new user, click on the “**Sign Up**” link to direct to the Sign Up Page.



## Sign Up Page

❖ To Sign Up,  
First, provide your First name, Last Name , Email, Password and User role.

Next, click on the “Register” button to redirect to the Login Page.



The screenshot shows the TTLABS Register page. On the left is the TTLABS logo, which consists of a stylized clock icon with an orange arrow and the text "TTLABS" and "TIME TABLE LABS" below it. On the right is a registration form titled "Register". The form contains the following fields: "First Name" (with placeholder "Enter First Name"), "Last Name" (with placeholder "Enter Last Name"), "Email" (with placeholder "Enter Email"), "Password" (with placeholder "Enter Password"), and "Re Type Password" (with placeholder "Re Type Password"). Below these fields are two radio buttons: "Assign as Admin" and "Assign as Lecturer". At the bottom of the form are two buttons: "Register" and "Already Have an Account? Login". A red arrow points to the "Register" button.

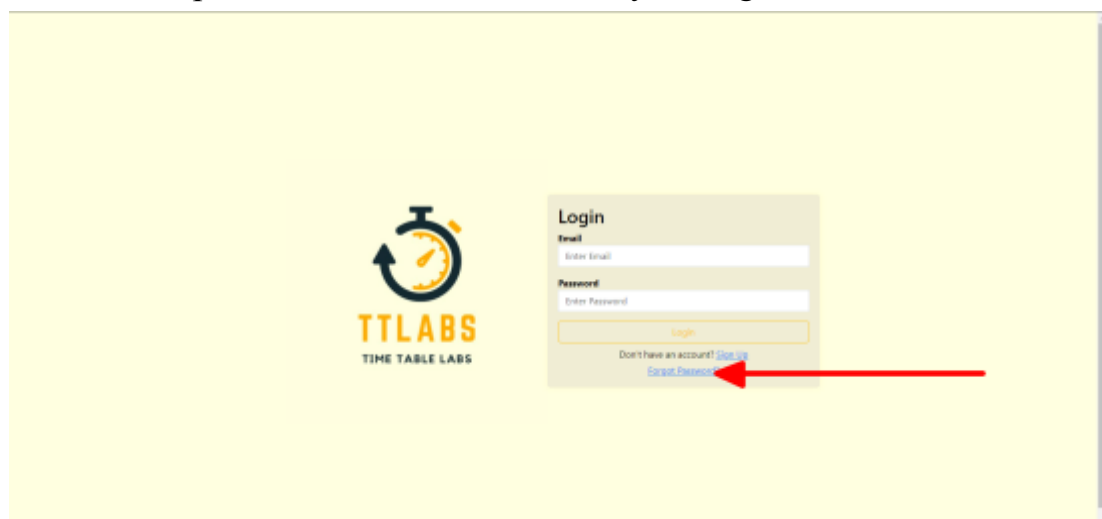
## Forgot Password

→ If you have forgotten your password or you want to reset your old password,

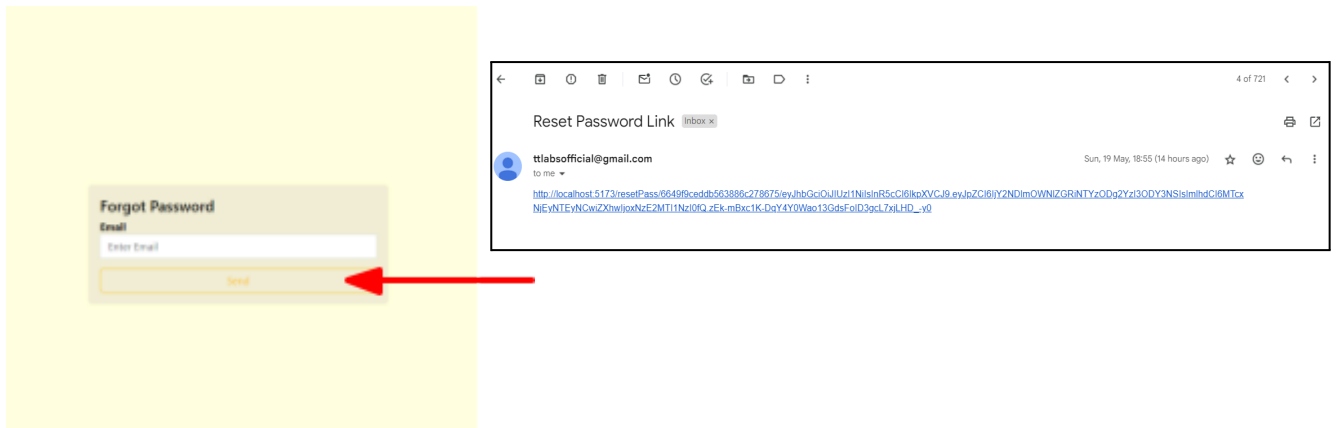
→ Click on “**Forgot Password**”

◆ Next, enter your registered email and click on “Send” button

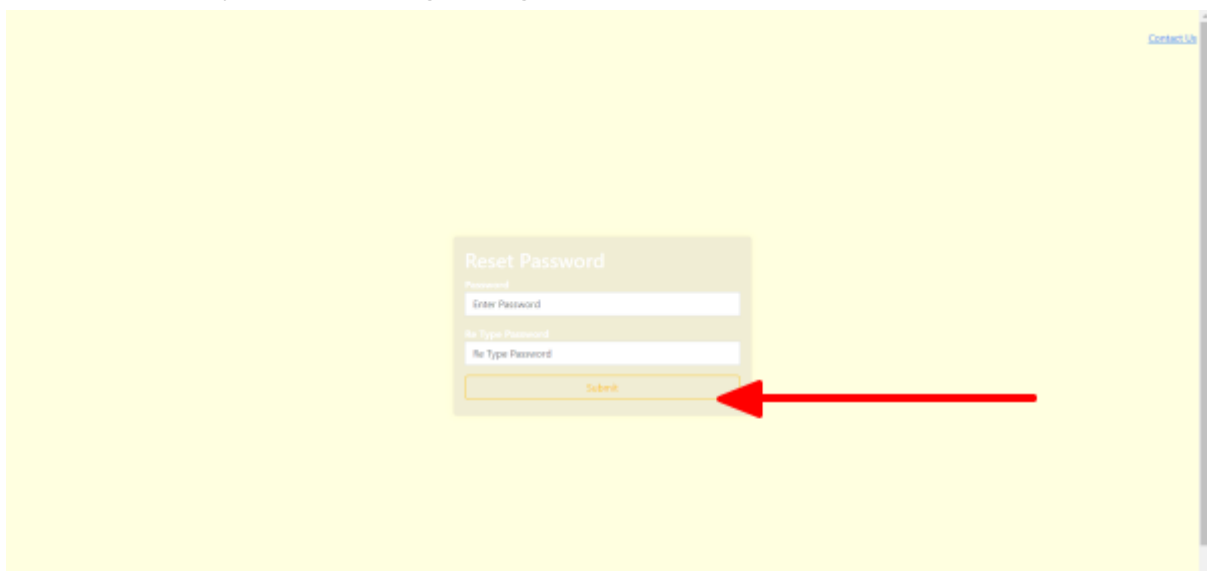
◆ Reset password link will be sent to your registered email



The screenshot shows the TTLABS Login page. On the left is the TTLABS logo, which consists of a stylized clock icon with an orange arrow and the text "TTLABS" and "TIME TABLE LABS" below it. On the right is a login form titled "Login". The form contains the following fields: "Email" (with placeholder "Enter Email") and "Password" (with placeholder "Enter Password"). Below these fields is a "Login" button. At the bottom of the form, there is a link that says "Don't have an account? [Click here](#) to Register Password". A red arrow points to the "Click here" link.



- Then, click on the link you received in the mail and it will direct you to the Reset Password.
- Enter your new password and click on the “Submit “ button.
- Once you click on “Submit” the new password will be updated and redirect you to the Login Page.



# Admin Features

## Home Page

❖ Once you logged in, you'll be directed to the Home Page.

Here you can find specific timetables based on the selected Specialisation and Batch of the current semester.

→ Select Specialisation, Batch, Year and Semester and click on the “Search”.

◆ Then, you can view the respective timetables according to the selected information.

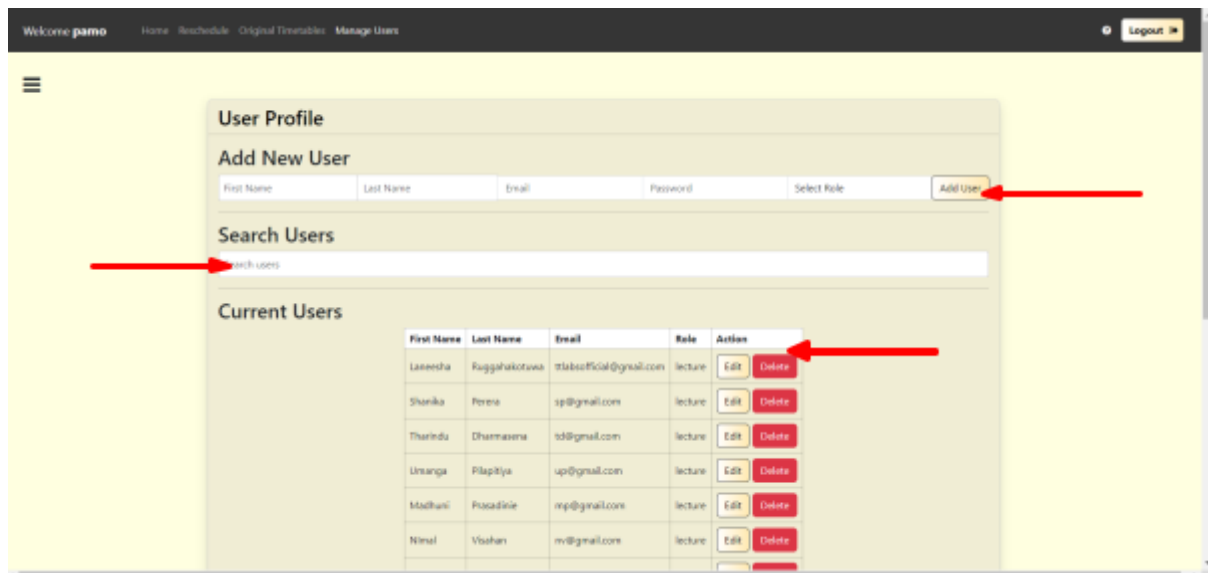


## Navigation Bar

❖ Here you can navigate through the **Home Page**, **Reschedule Page** , **Original Timetables Page** and **Manage Users Page**.

## Manage Users Page

- This allows you to manage the current users in the system.
- ◆ You can **add new users**, **search current users** and **edit or delete current users** in the system.

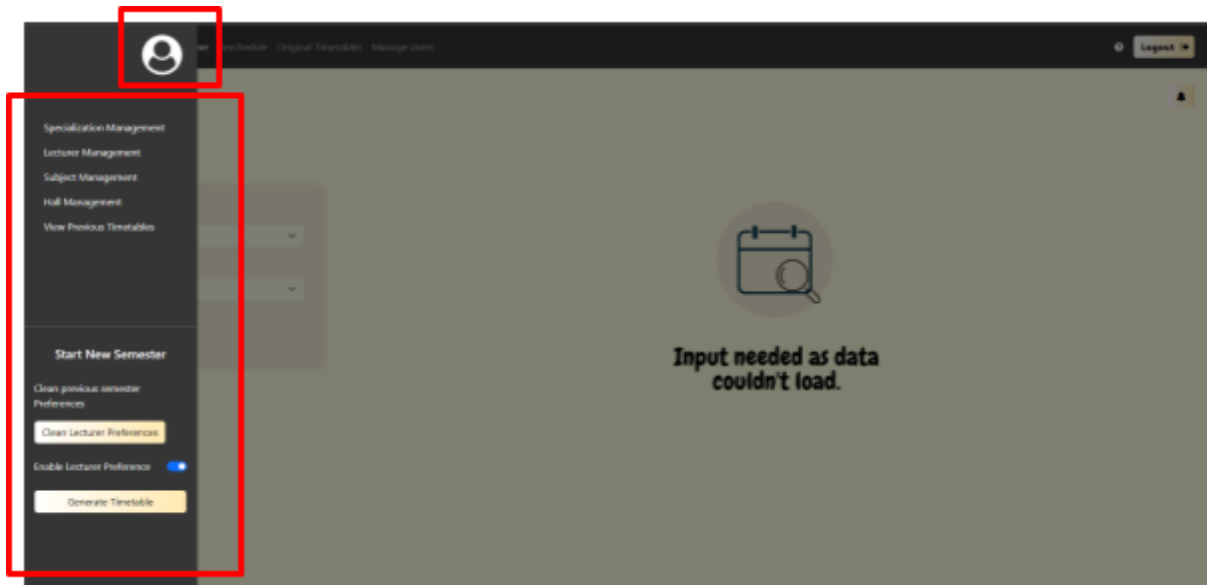


## SideBar Panel

- To **expand the sidebar panel** click on the ≡ icon (top right corner of the page) and explore the functionalities.
- Features of the Sidebar Panel.

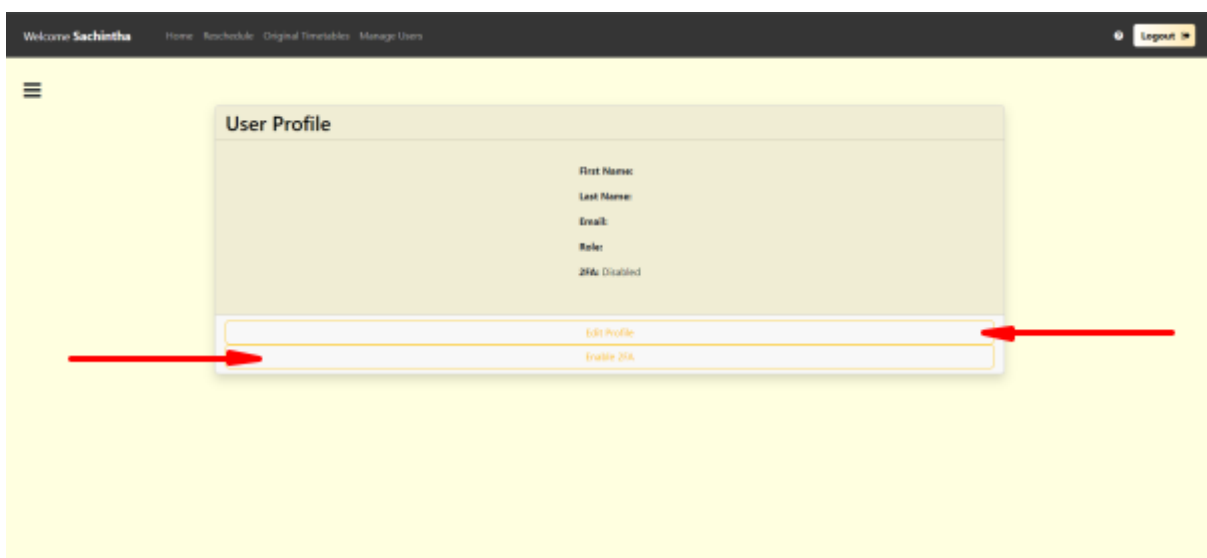
User Profile	Hall Management
Specialisation Management	View Previous Timetables
Lecturer Management	Clean Lecturer Preference
Subject Management	Generate Timetable





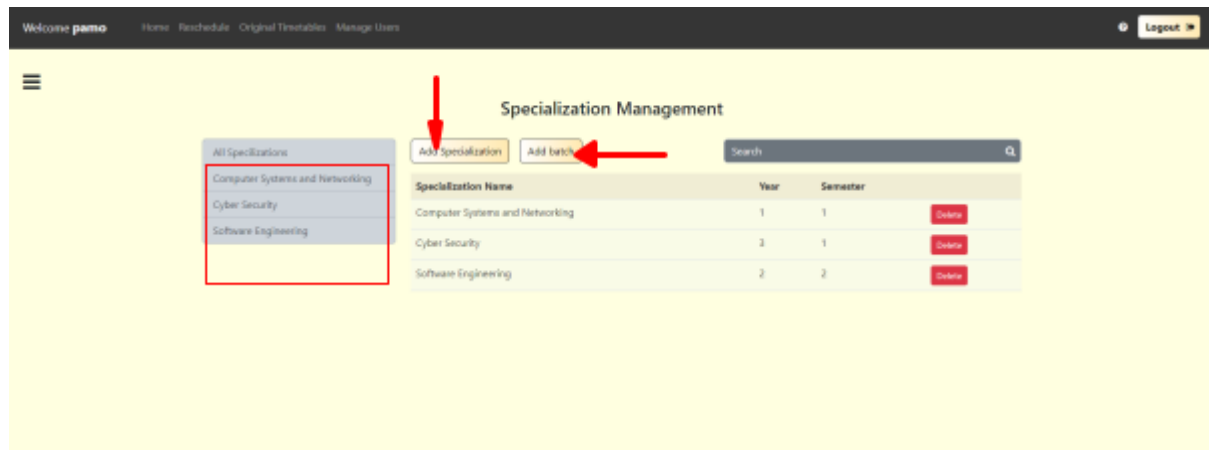
## User Profile Page

- ➔ If you would like to customise your user profile, you can
  - ◆ Click on “**User Profile Icon**” and It will direct you to the User Profile Page.
  - ◆ Then, click on “**Edit Profile**” to edit your name, email and profile picture.
- ➔ To enable two-factor authentication(2FA), click on “**Enable 2FA**”.
  - ◆ It will send a verification code to the registered email.
  - ◆ Enter the verification code and click on “Submit” to enable 2FA.



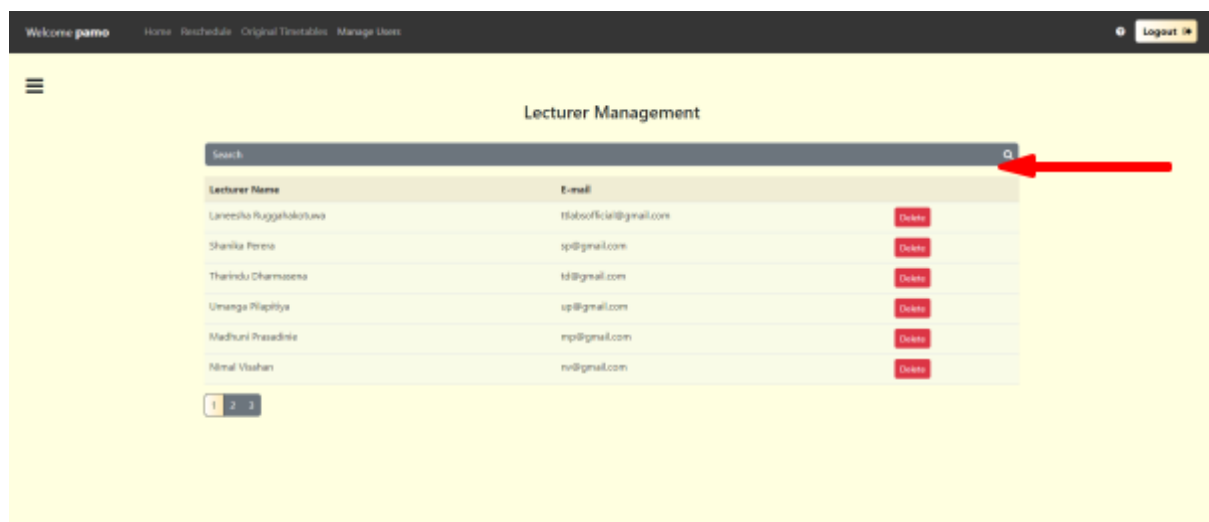
## Specialisation Management Page

- Click on **“Add Specialization”** and **“Add Batch”** to add new specialisations and batches into the system.
- Use the search icon to find specific specialisations and you can **delete specialisations** using the **“Delete”** button.



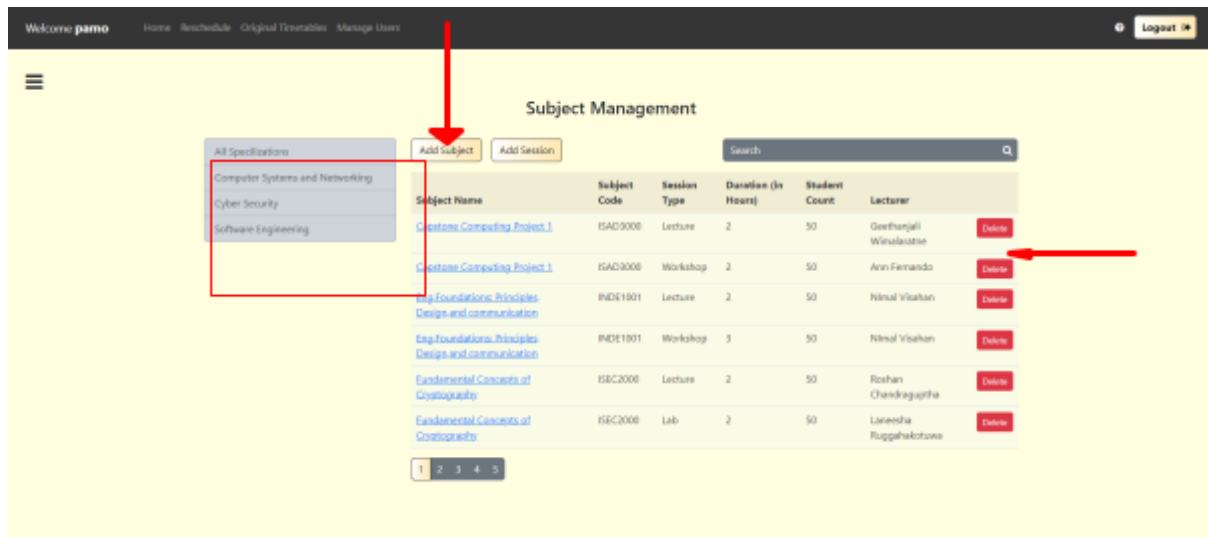
## Lecturer Management Page

- Here you can **view the details of lecturers**( Lecturer name and Lecturer Email).
- Use the **“Delete”** button to delete lecturers from the system.



## Subject Management

- Click on “**Add Subject**” to add new subjects into the system.
- Use the search icon to find specific subjects and you can delete specialisations using the “**Delete**” button.
- If you want to add subjects which are not included in the respective semesters then you can add subjects without providing the batches for the subject.



## Hall & Lab Management

- Choose the Resource type whether you want “Lecture Hall” or “Laboratory”.
- If you select “Lecture Hall”,
  - ◆ Then you can view and manage the details(Add, Update and Delete) respectively.
  - ◆ Use the “Assign Halls” button to assign halls into the timetable generated except lab sessions.
- If you select “Laboratory”,
  - ◆ Then you can view and manage the details(Add, Update and Delete) respectively.
  - ◆ Use the “Assign Labs” button to assign labs into the timetable generated lab sessions.

Welcome **pamo** Home Reschedule Original Timetables Manage Users Logout

### Select Hall Type

Lecture Hall

Add Update Delete View Halls **Assign Halls**

Enter Hall ID :  
Hall Id

Enter Hall Capacity :  
Hall Capacity

Add Cancel

## View Previous Timetables

- Select Specialisation, Batch, Year and Semester and click on the **“Search”** button.
- Then you can view the respective timetables according to provided information.

Welcome **pamo** Home Reschedule Original Timetables Manage Users Logout

### Previous Timetables


Specialization

Batch

Year

Semester

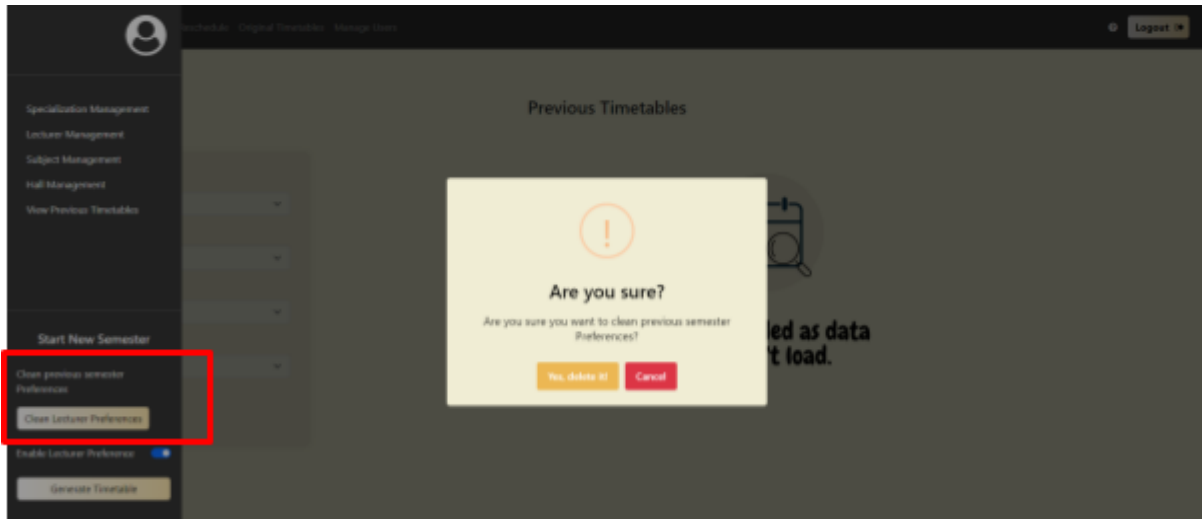
Search Cl.



**Input needed as data  
couldn't load.**

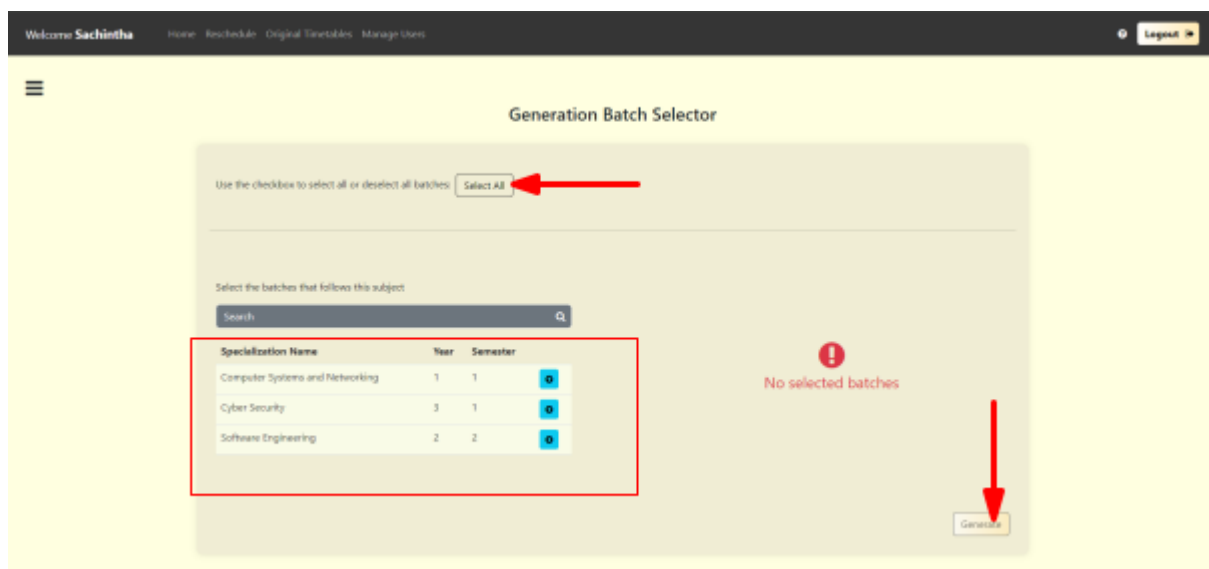
## Clean Lecturer Preferences

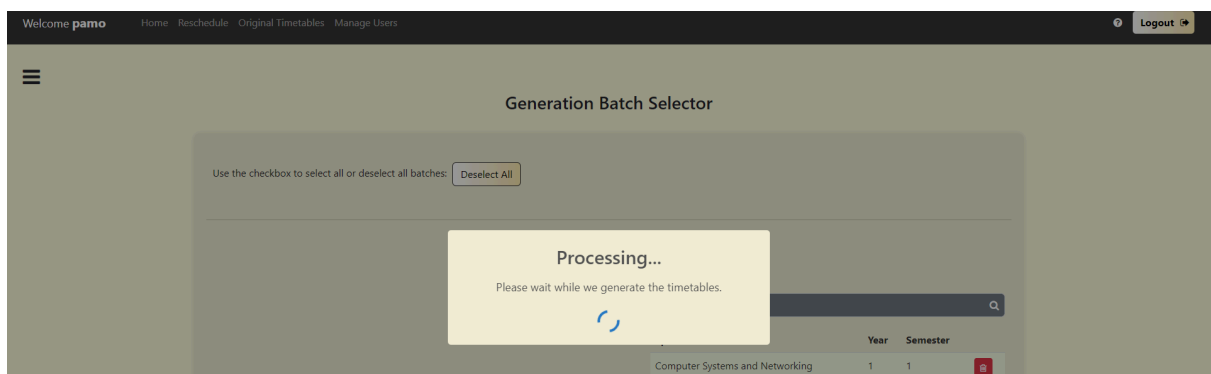
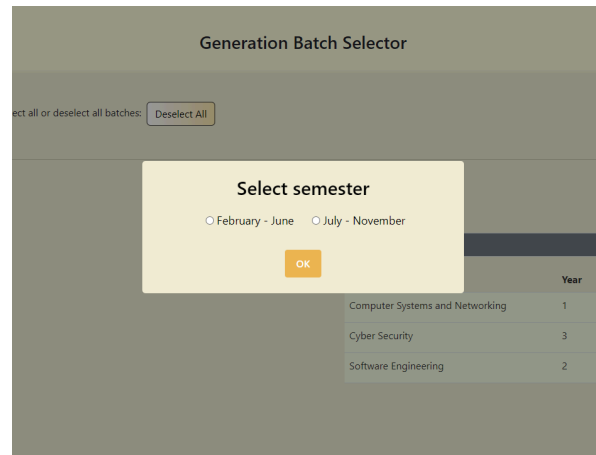
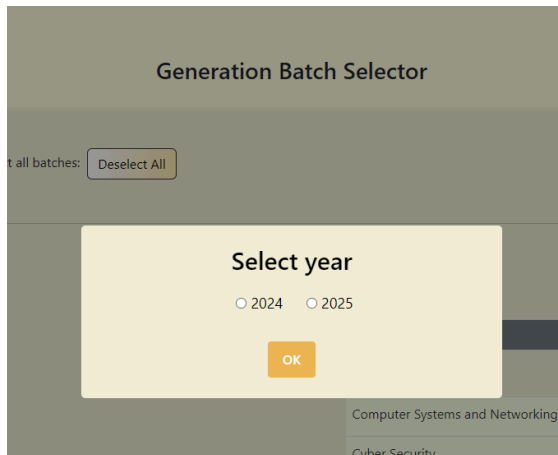
- This allows you to clear all the previous lecturer preferences given by the lecturers beginning of each semester.



## Generate Timetable

- ➔ This allows you to generate timetables for the selected batches in the beginning of the semester.
- ➔ First, click on the “**Generate Timetable**” button in the side panel and it will direct you to the Generation Batch Selector Page.
  - ◆ Next, select the batches which you need to generate timetables and click on the “**Generate**” button.





→ After the generation process is complete, if there are any unassigned subjects that the system was unable to assign, an admin will be able to **manually assign** those subjects using the **Conflicts Resolver Page**.



This page will **only be accessible** if there are **unassigned subjects** detected in the generation process.

- To update the halls and labs for the generated timetables,  
After clicking “**submit**” button it will automatically direct you to the hall/lab allocation page.



- ◆ Go to the Lab Management Page
- ◆ Select hall type - Lecture Hall / Laboratory
- ◆ Click on the “**Assign halls**” in the Lecture Hall and “**Assign labs**” in Laboratory to assign resources to the generated timetable sessions respectively.

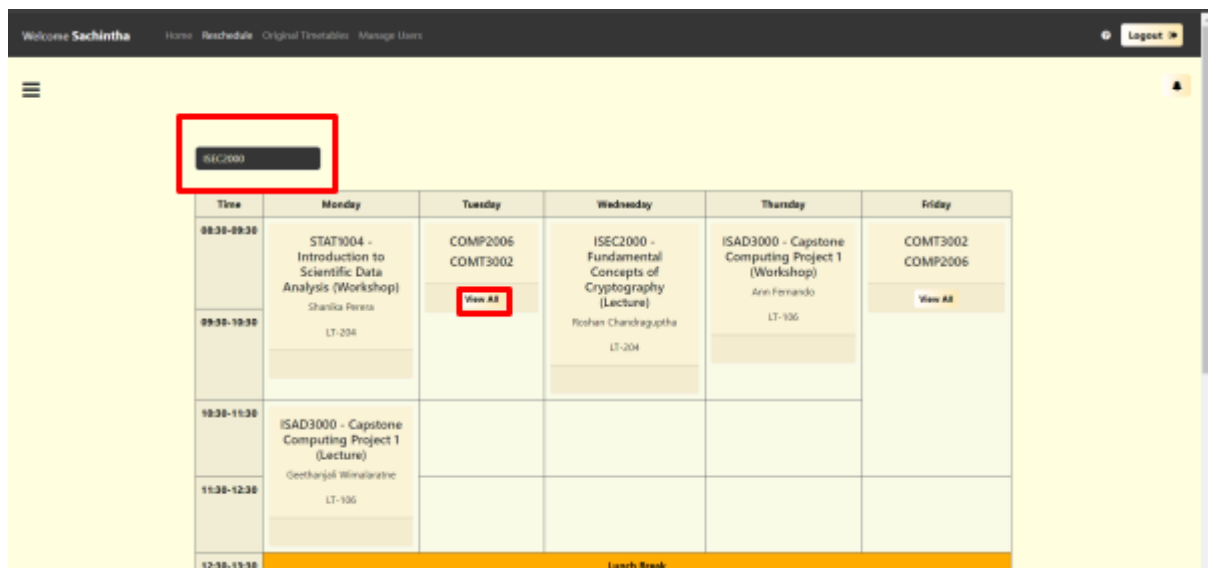


- Finally, to view the updated timetables,
- ◆ Navigate to the **Home Page**
  - ◆ Select the specialisation and batch to view the generated timetable for the current semester.



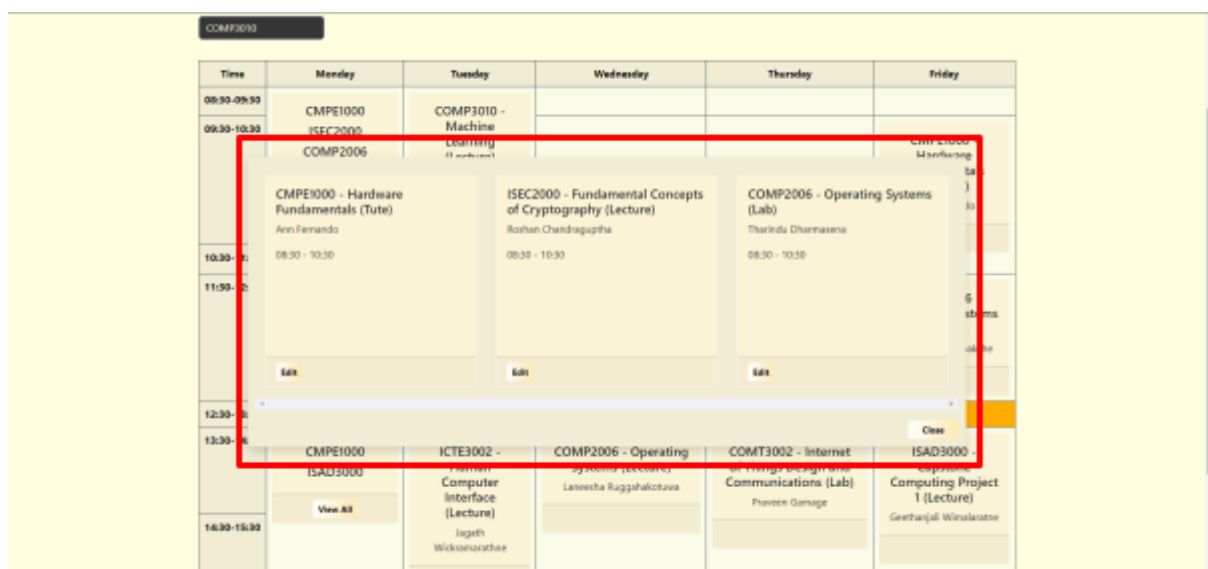
## Reschedule Page

- Click on “**Reschedule**” to navigate to the Reschedule Page
- This Page allows you to **add new sessions, update date and time in existing sessions and delete sessions.**
  - ◆ First, Use “**Search Module**” to search the module you want to reschedule
  - ◆ Then, you can view all the other modules already scheduled for the students are in the same specialisation and same batch



Time	Monday	Tuesday	Wednesday	Thursday	Friday
08:30-09:30	STAT1004 - Introduction to Scientific Data Analysis (Workshop) Shanika Perera LT-204	COMP2006 COMT3002 <a href="#">View All</a>	ISEC2000 - Fundamental Concepts of Cryptography (Lecture) Rohan Chandraguptha LT-204	ISAD3000 - Capstone Computing Project 1 (Workshop) Ann Fernando LT-106	COMT3002 COMP2006 <a href="#">View All</a>
09:30-10:30					
10:30-11:30	ISAD3000 - Capstone Computing Project 1 (Lecture) Geethanjali Wimalaratne LT-106				
11:30-12:30					
12:30-13:30	Lunch Break				

- ◆ Click on “**View all**” to view the session details of the module stack.



Time	Monday	Tuesday	Wednesday	Thursday	Friday
08:30-09:30	CMPE1000	COMP3010 - Machine Learning			
09:30-10:30	ISEC2000 COMP2006				
10:30-11:30	CMPE1000 - Hardware Fundamentals (Tute) Ann Fernando	ISEC2000 - Fundamental Concepts of Cryptography (Lecture) Rohan Chandraguptha	COMP2006 - Operating Systems (Lab) Tharindu Dharmasena		
11:30-12:30					
12:30-13:30					
13:30-14:30	CMPE1000 ISAD3000 <a href="#">View All</a>	ICTE3002 - Human Computer Interface (Lecture) Jagath Wickramaratne	COMP2006 - Operating Systems (Lab) Laneshia Ruggahakotzua	COMT3002 - Internet Communications (Lab) Praveen Gamage	ISAD3000 - Capstone Computing Project 1 (Lecture) Geethanjali Wimalaratne



◆ Click on **“Edit”** button visible on hover to open the reschedule form

- Fill the form and click on **“Add”** to add new sessions
- Click on **“Edit”** visible in the scheduled session and enter New Date, New Time and Duration to update sessions.
- Click on **“Delete”** to delete an existing scheduled session.



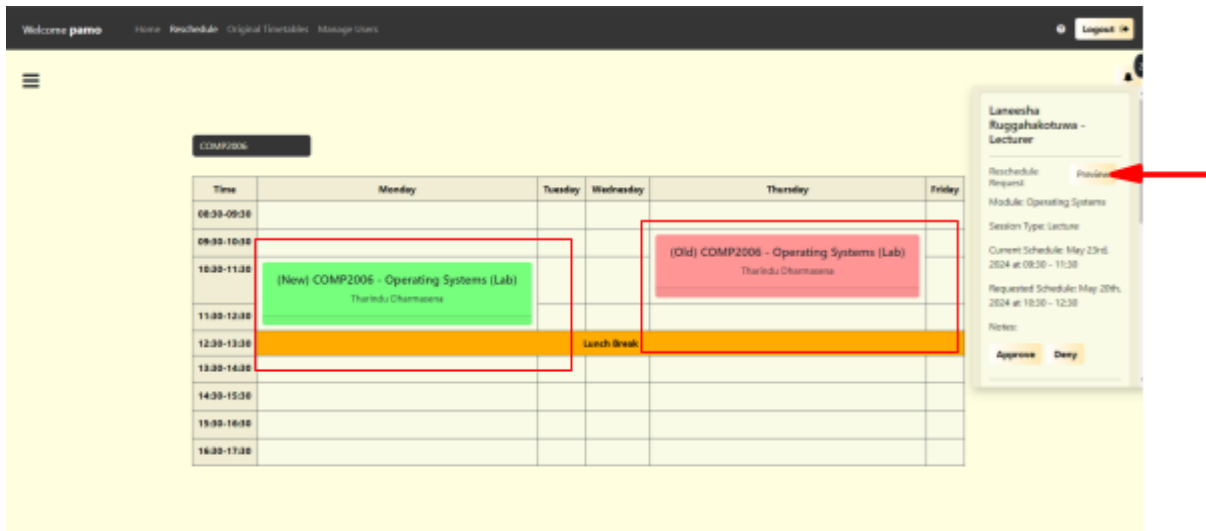
→ To view, the lecturer reschedule requests to navigate to the Notification Page.

## Notification Page

→ Click on the **“bell”** icon to **view the reschedule request notifications**.  
In the notification,



- ◆ Click on “**Preview**” to view the preview of the reschedule request.
  - This function allows you to view the old scheduled session and new session in a table for better understanding for the reschedule process.



- ◆ Click on “**Approved**” to approve the reschedule request.
  - This action will automatically update the session with the new Date and Time.
- ◆ Click on “**Denied**” to deny the reschedule request
  - This action will send a notification for the lecturer who sent the reschedule request to update the admin denied the request.

→ Double click on the “bell” icon to direct to the Reschedule Report Generation Page.

- ◆ Enter the necessary data to filter the respective reschedule process and click on “**Search**”.
- ◆ In the Results, click on “**save**” and give a proper file name for the file.

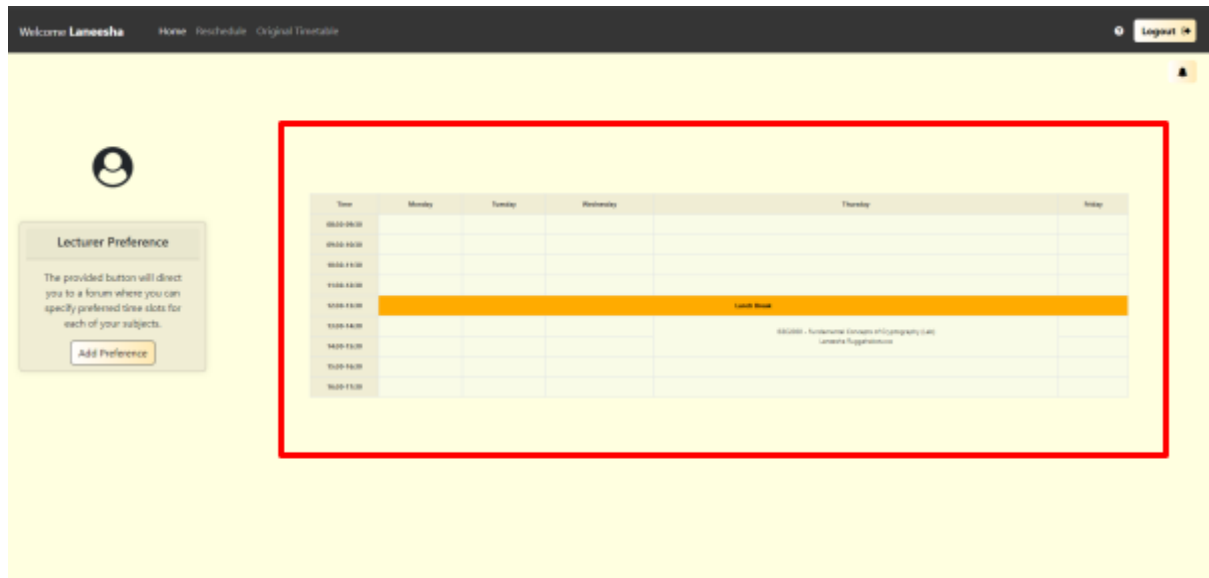
In the Save Reports,

- Click on the “**printer icon**” to open the saved report file or click on “**download icon**” to directly download the saved report file.
- Click on “**trash icon**” to delete the saved report file.

# Lecturer Features

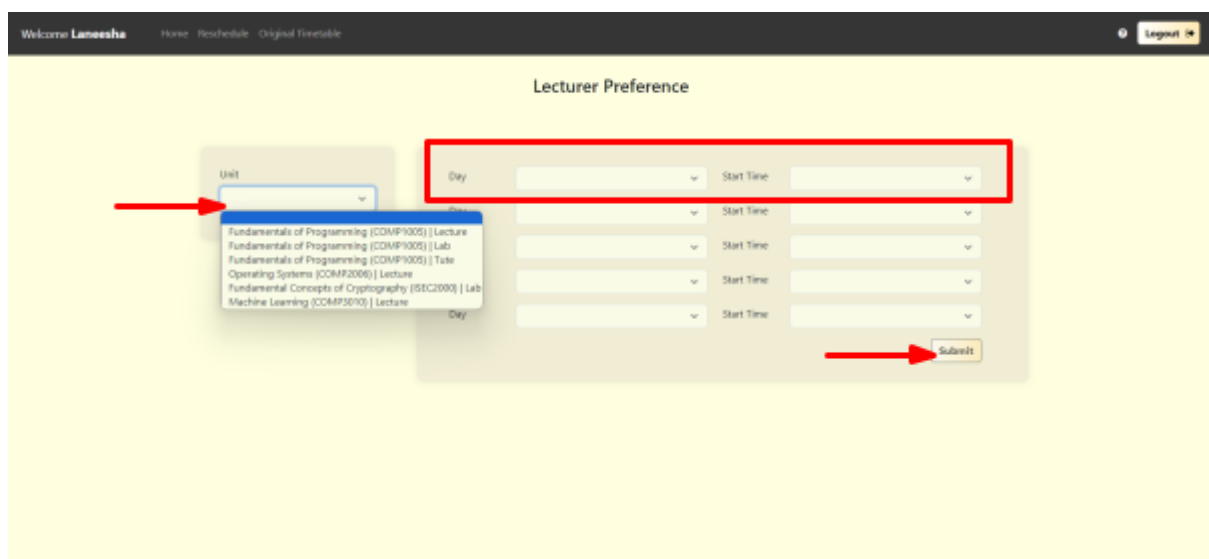
## Home Page

- Once you logged in, you'll be directed to the Home Page.
- Here you can find your **personal timetables** once the semester starts.



## Lecturer Preference

- Click on the “**Add Preference**” button to provide the preferred dates and times for the sessions.

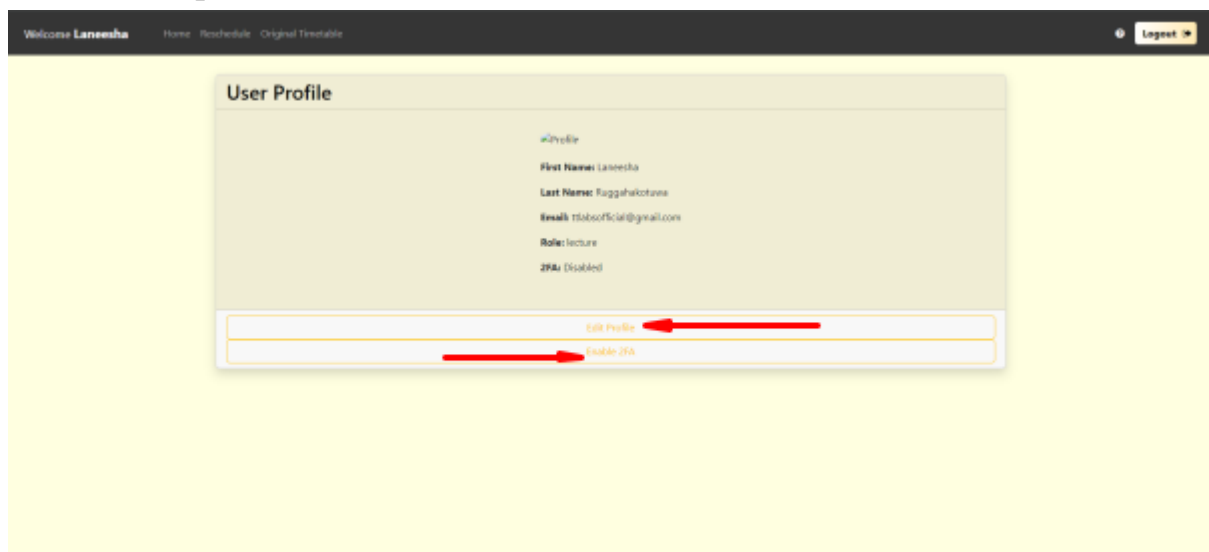


## Navigation Bar

- Here you can navigate through the **Home Page**, **Reschedule Page** and **Original Timetables Page**.

## User Profile Page

- ➔ If you would like to customise your user profile, you can
  - ◆ Click on “**User Profile Icon**” in the home page and It will direct you to the User Profile Page.
  - ◆ Then, click on “**Edit Profile**” to edit your name, email and profile picture.



- ➔ To enable two-factor authentication(2FA), click on “**Enable 2FA**”.
  - ◆ It will send a verification code to the registered email.
  - ◆ Enter the verification code and click on “**Submit**” to enable 2FA.

## Reschedule Page

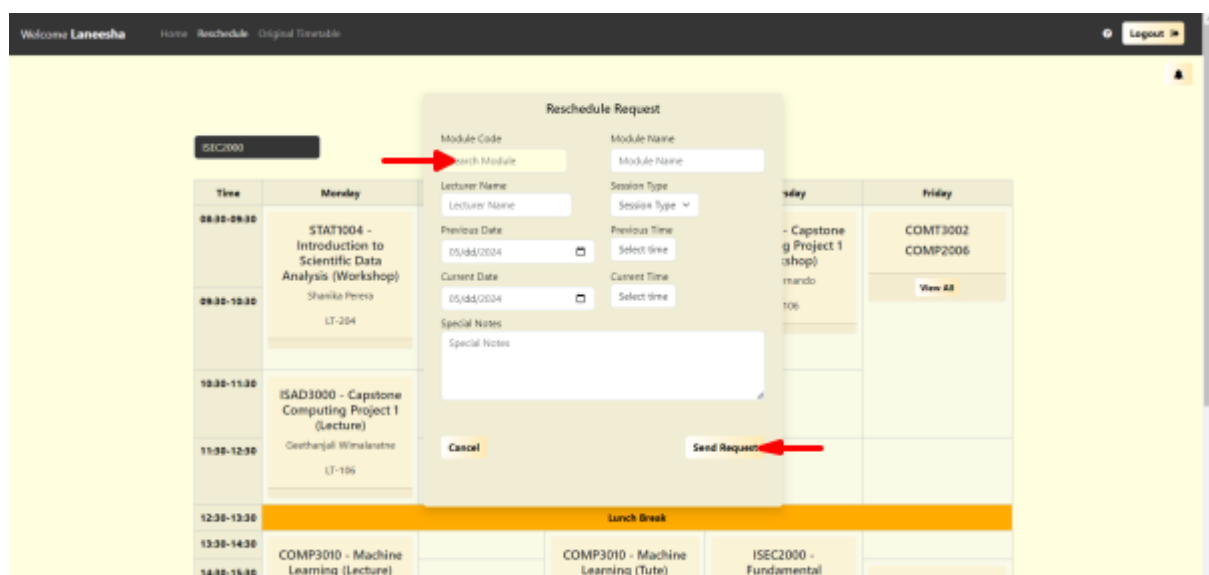
- Click on “**Reschedule**” to navigate to the Reschedule Page
- This Page allows you to send a reschedule requests for the session
  - ◆ First, Use “**Search Module**” to search the module you want to reschedule
  - ◆ Then, you can view all the other modules already scheduled for the students are in the same specialisation and same batch



The screenshot shows the Reschedule Page interface. At the top, there is a search bar labeled "COMP0006" which is highlighted with a red box. Below the search bar is a timetable table with columns for Time, Monday, Tuesday, Wednesday, Thursday, and Friday. The table contains various modules and their lecturers. A "Send Request" button is visible in the Thursday column, also highlighted with a red box. The "View All" button is visible in the Monday column, also highlighted with a red box.

Time	Monday	Tuesday	Wednesday	Thursday	Friday
08:30-09:30	ISEC2000 COMP2003	COMP3010 - Machine Learning (Lecture) Laneesha Ruggahakotuwa	CMPE3008 - Software Engineering Testing (Lecture) Jeevika Perera	Send Request	
09:30-10:30	View All				
10:30-11:30	COMP2006 - Operating Systems (Lab) Tharindu Dharmasena	COMP3010 - Machine Learning (Tute) Jeevika Perera	ISEC2000 - Fundamental Concepts of Cryptography (Lab) Laneesha Ruggahakotuwa	STAT1004 - Introduction to Scientific Data Analysis (Workshop) Shanika Perera	COMP2006 - Operating Systems (Tute) Samartha Rajapakse
11:30-12:30					
12:30-13:30	Lunch Break				
13:30-14:30		ICTE3002 - Human Computer Interface (Lecture) Jagath Wickramaratne	COMP2006 - Operating Systems (Lecture) Laneesha Ruggahakotuwa		COMP2003 - Object Oriented Software Engineering (Lab) Praveen Camargo
14:30-15:30					

- To open the reschedule request form,
  - ◆ Click on “**Send Request**” button which is only visible in the empty time slots
  - ◆ Fill the form and click on “**Submit**”.



The screenshot shows the Reschedule Request form. The form is titled "Reschedule Request" and contains the following fields:

- Module Code: ISEC2000
- Search Module: (Red arrow points to this field)
- Module Name: (Empty field)
- Lecturer Name: (Empty field)
- Session Type: (Dropdown menu)
- Previous Date: 05/04/2024
- Current Date: 05/04/2024
- Previous Time: (Empty field)
- Current Time: (Empty field)
- Special Notes: (Empty text area)
- Cancel: (Button)
- Send Request: (Button, highlighted with a red arrow)

The form is overlaid on a timetable table. The "Send Request" button is visible in the Thursday column, also highlighted with a red box.

→ To view the Reschedule process status ( accepted or denied) navigate to the Notification Page

◆ Click on the bell icon to view the notifications.

The screenshot shows the 'Reschedule' page in the Laneesha system. A notification panel on the right, highlighted with a red box, displays a message from 'Admin: pamo' stating 'Reschedule Request Approved' for the 'Module: Operating Systems' and 'Session Type: Lecture'. It provides details about the current and requested schedules for May 2024. The main area shows a timetable for the week of May 20th to 26th, 2024, with various courses like ISEC2000, COMP3010, and COMP2006 scheduled across different times.

## Original Timetables Page

→ Navigate to view the initial timetable generated in the beginning of the semester.

The screenshot shows the 'Original Timetable' page in the Laneesha system. A red box highlights the timetable table, which displays the initial schedule for the semester. The table has columns for Time, Monday, Tuesday, Wednesday, Thursday, and Friday. It lists various courses and their scheduled times, including COMP3010, ISEC2000, and COMP2006. A 'Lunch Break' is indicated for the 12:00-13:00 slot.

## Frequently asked questions

1. How do I access TTLABS ?

You can access TTLABS via your PC's browsers(eg: Chrome, Firefox, Safari)

2. How does the application ensure data security and privacy ?

All the user passwords are encrypted while ensuring the other personal data is securely stored in the database.

3. How is TTLABS handling constraints and preferences in the timetable generation?

Applications can handle various constraints and preferences by allowing users to specify them through the application interface.

4. Does the application allow users to reschedule classes after the initial timetable generation?

Lecturers can send reschedule requests each week and with the admin approval reschedules sessions can be updated to the system.

5. Can users customise the content and format of the email notifications?

If necessary, Lecturer can send an additional note along with the reschedule request and if the reschedule approved students will receive the email notification including the additional note in the content of the mail.

6. Are there features for managing resource conflicts ?

There are features to manage halls and labs within the system and in the timetable generation it will check the resource availability and allocate properly.

7. Is there technical support available if I encounter issues with the system?

Contact our support team via [ttlabsofficial@gmail.com](mailto:ttlabsofficial@gmail.com) for further assistance.



## Troubleshooting

1. Login issues
  - Check your credentials and internet connection. If necessary reset your password.
2. App crashes
  - Close and reopen the app.
3. Technical errors
  - Clear the browser cache or contact support if needed.
4. Response delay
  - Check the internet connection.
5. Feature accessibility
  - Feature accessibility depends on the user role. First, check the registered role in the system. Contact support if you encounter any accessibility issues.

## Glossary

**TTLABS ( TIME TABLE LABS )** - The name of the timetable and resource management system.

**Conflicts Resolver Page** - The page where admin can view the unassigned subjects in the generation process.

**The Reschedule Page** - The page where all the rescheduling process handles within the system.

**Notification Page** - The page where all the reschedule notifications are visible .

**Report Generation Page** - The page where generate reports of reschedule process

**2FA** - Two-factor authentication

**Lecturer Preferences** - Lecturer's preferred dates and times for the sessions conducted by them.

## Support Contact details

For the further assistance required, please contact us via email on [tlabsofficial@gmail.com](mailto:tlabsofficial@gmail.com)