

Application Overview

Overview: Our School Learning Management System (LMS) is a VBA-powered platform designed to enhance educational processes within schools. It provides a user-friendly interface for administrators, teachers and students

Key Features:

- User authentication with role-based access control.
- Personalized dashboards for easy navigation.
- Course management for teachers, including study material uploads.
- Assignment creation
- Communication tools such as announcements and messaging.
- Integrated scheduling for classes

Technology Stack:

- VBA for application development.
- Microsoft Excel as the database backend.

Benefits:

- Access to Study materials anytime and anywhere.
- Improved communication and collaboration.
- Enhanced learning experiences with multimedia content sharing.
- Data-driven insights for informed decision-making.
- Scalability and customization options.

Conclusion: Our VBA-powered School LMS offers a comprehensive solution to modernize educational practices, promoting efficiency, engagement, and academic success within schools.

Sheets for the Application

Database sheet

Database sheet will store information of users such as their unique user ID and their password which will be used to authenticate while log in process, it also contains information role of a user (Student , Teacher, Coordinator , DBA) etc.

The 'Database' sheet will contain the following information

- 1). Column 'A' contains the Email ID of all the users.
- 2). Column 'B' contains password of all the users.

- 3). Column 'C' is representing the role of the user. Whether the User is Student, Teacher, Coordinator or DBA(Admin).
- 4). Column 'D' represents the classroom in which a student is enrolled, if the respective user is not a student, then the respective field is empty.

	A	B	C	D
3	mayura@gmail.com	123	student	Class 1
4	ashok@gmail.com	123	student	Class 1
5	balbir@gmail.com	123	student	Class 1
6	jash@gmail.com	123	student	Class 1
7	suresh@gmail.com	123	student	Class 2
8	rahul@gmail.com	123	student	Class 2
9	vinayak@gmail.com	123	student	Class 2
10	kirti@gmail.com	123	student	Class 2
11	rohit@gmail.com	123	student	Class 2
12	ajay@gmail.com	123	student	Class 3
13	aarav@gmail.com	123	student	Class 3
14	riya@gmail.com	123	student	Class 3
15	dev@gmail.com	123	student	Class 3
16	maya@gmail.com	123	student	Class 3
17	adi@gmail.com	123	student	Class 4
18	sneha@gmail.com	123	student	Class 4
19	sid@gmail.com	123	student	Class 4
20	mallya@gmail.com	123	student	Class 4
21	kavya@gmail.com	123	student	Class 4
22	vijay@gmail.com	123	student	Class 5
23	raghu@gmail.com	123	student	Class 5
24	pooja@gmail.com	123	student	Class 5
25	arnav@gmail.com	123	student	Class 5
26	swati@gmail.com	123	student	Class 5
27	awesh@gmail.com	999	coordinator	
28	nikhil@gmail.com	999	teacher	
29	pratik@gmail.com	999	teacher	
30	adarsh@gmail.com	999	teacher	
31	abhijit@gmail.com	999	teacher	
32	majnu@gmail.com	999	DBA	

Class information sheet

The 'class information' sheet contains multiple information, let's go through them one by one

1. Column 'A,B,C,D' and 'E' contains the information of a Class and the subjects which are taught in that particular Class.

	A	B	C	D	E
1	CLASS1	CLASS 2	CLASS 3	CLASS 4	CLASS 5
2	English	English	English	English	English
3	Maths	Maths	Maths	Maths	Maths
4	Environmental-Studies	Environmental-Studies	Science	Science	Science
5	Marathi	Marathi	Marathi	Marathi	Hindi
6	Drawing	Drawing	Social-Science	Social-Science	Social-Science
7	P.T	Welding	Geography	Geography	Geography

2. Column 'H,I,J' contains Year, Month and day present in date, these values are accessed by teacher/coordinator user form while setting lecture/due date of assignment etc.

H	I	J	K
2024	January	1	
2025	February	2	
	March	3	
	April	4	
	May	5	
	June	6	
	July	7	
	August	8	
	September	9	
	October	10	
	November	11	
	December	12	
		13	
		14	
		15	
		16	
		17	
		18	
		19	
		20	
		21	
		22	
		23	
		24	
		25	
		26	
		27	
		28	
		29	

3. Column 'L' Contains the 'Study Materials' that given by the Subject teacher to particular class.it holds information like the class to which study material is for, subject which is taught in that study material, link of the study material and additional description given by teacher, all these information is concatenated by "/" and put in Column L, this information is concatenated so that each information is accessible by splitting the value.

L
STUDY MATERIALS
Class 1//Maths//www.youtube.com//watch this video
Class 1//Maths//www.youtube.com//watch this video
Class 1//English//www.english.com//watch this video
Class 5//Geography//www.netgeo.com//watch man vs wild from here
Class 5//Social Science//www.google.com//google and learn
Class 1//Maths//www.sdbi.in//solve the sums on this website
Class 4//Marathi//www.youtube.com//info test
Class 2//Marathi//www.test.com//watch this video and write brief

4. Column 'M' contains the 'Assignment' that is given by the Subject teacher of the class, it holds information like the class to which assignment is given, for example Class 1, due date of the assignment, subject of the assignment and the additional information of that particular assignment which explains what student exactly has to do in the assignment, similar to Column L all this information is further concatenated with "/" and then stored in our Column M.

M
ASSIGNMENT
Class 1//07-05-2025//Arts and Crafts//Jo bhi karna hai karo, 20 marks ka assignment hai
Class 1//06-05-2024//Arts and Crafts//kuch toh karo!
Class 1//22-04-2025//English//Write an Essay on Global Warming
Class 1//06-04-2024//Environmental Studies//ground me jaake ground ka measurement le
Class 1//05-06-2024//Maths//Solve this sum: Ram has 4 Apples, his train is 4 mins late, calculate mass of the sun
Class 2//05-06-2024//English//Write an essay on Water harvesting
Class 3//28-03-2024//Social-Science//Complete The questions of Chapter 1
Class 1//05-05-2024//Environmental-Studies//write a short note on water harvesting

5 . Column 'N' is about Notification, it contains the messages sent to teachers/principal by students/teachers, it contains information like sender, receiver and then the actual message and this is concatenated using "/" and stored in Column N.

N	O	P	Q	R
NOTIFICATIONS				
pratik@gmail.com//awesh@gmail.com//hi				
pratik@gmail.com//shubham@gmail.com//kaisa hai tu				
None				
pratik@gmail.com//awesh@gmail.com//hi				
awesh@gmail.com//nikhil@gmail.com//hi				
nikhil@gmail.com//awesh@gmail.com//you leave has been granted by the school authority				
pratik@gmail.com//shubham@gmail.com//hi				
None				

Lectures information sheet

The 'Lectures information' sheet will contain the following information

- 1). Column 'A' is representing Lectures data, whenever the coordinator assigns a lecture to particular class, it gets added here, the value contains information like the class for which lecture is scheduled, day of Lecture, timing of lecture, subject which will be taught in that lecture and the faculty, again all these information is concatenated with "/" and then stored in cell
- 2). Column 'B' is representing cancelled lectures, whenever coordinator cancels any scheduled lectures, it gets added here.

	A	B
1	lectures data	lecs cancelled
2	CLASS1//25-March//7:00 - 8:40//English//pratik@gmail.com	Class 1//21-March//7:00 - 8:40//Maths//nikhil@gmail.com
3		CLASS 2//26-March//9:00 - 10:40//Maths//nikhil@gmail.com
4	None	
5	None	
6	None	
7	None	
8	None	
9	None	
10	None	
11	None	
12	None	
13	None	
14	None	
15	None	
16	None	

Particular Class sheet (Class 1,Class 2, , Class 5)

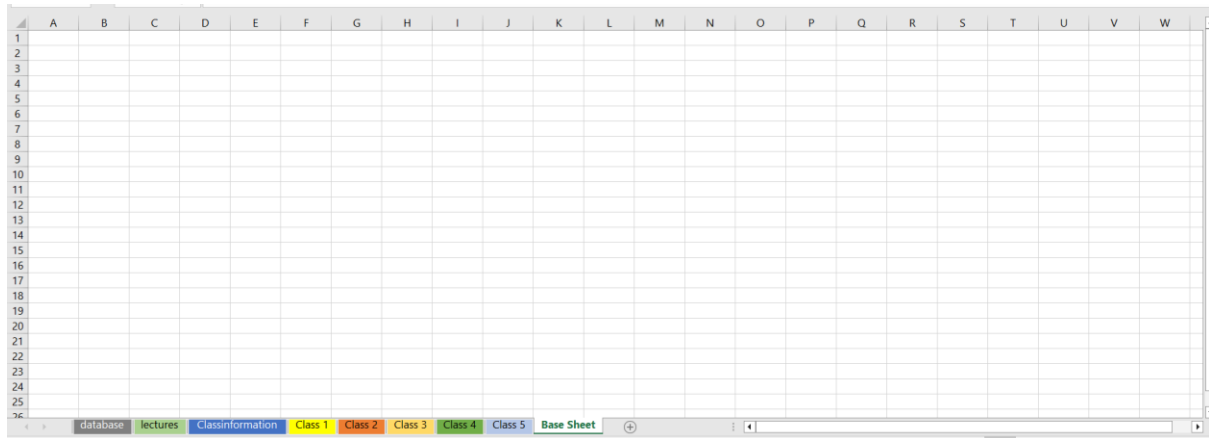
These sheets are used to store the attendance of students of that particular class

- 1). Column 'A' contains the name of student who is enrolled in that particular class
- 2). Column 'B' contains the roll no. of that student.
- 3). Column 'C:H' contains all the subjects which are taught in that particular class and then the attendance of each student for that particular subject is stored in the respective subject column
- 4) This sheet display the records of attendance of students of each individual class and help the coordinator or teacher to maintain the record of attendance.

	A	B	C	D	E	F	G	H
1	NAME	ROLLNO	ENGLISH	MATHS	Environmental-Studies	MARATHI	DRAWING	P.T
2	shubham	1		18-March//1//present	15-March//1//absent		20-March//1//present	
3	mayura	2		18-March//2//present	15-March//2//absent		20-March//2//present	
4	sachin	3		18-March//3//present	15-March//3//absent		20-March//3//absent	
5	ashok	4		18-March//4//present	15-March//4//absent		20-March//4//absent	
6	balbir	5		18-March//5//present	15-March//5//absent		20-March//5//present	
7	jash	6		18-March//6//present	15-March//6//absent		20-March//6//present	

Base Sheet

These sheet does not contain any information, while the user form runs, we hide all the other sheets from users (except DBA), to avoid any kind of data manipulation, however in excel at least one sheet should be present, and this sheet is chosen for that. Its literally an empty sheet, still I gotta show the image



All the user forms of our Learning Management System

1.Login Page

This is the Main page of our System, whenever a workbook is opened, firstly all worksheets are made hidden (except base sheet) to avoid any kind of data manipulation and then this user form appears. Apart from its beautiful appearance which is of course copied from a YouTube video, this user form has two input textboxes, one is for username and other one is for password and one login button, whenever user enters his/her credentials and presses on login, VBA program goes in database sheet and tried to find a user with these credentials, if it succeeds it process further otherwise it outputs a msgbox saying invalid ID/password and asks to enter credentials again.

login page

Welcome Back
Signin To Your Account

Username

Password

LOGIN

1. Input Fields:

“Username”: Users can enter their email address.

“Password”: Users can enter their password.

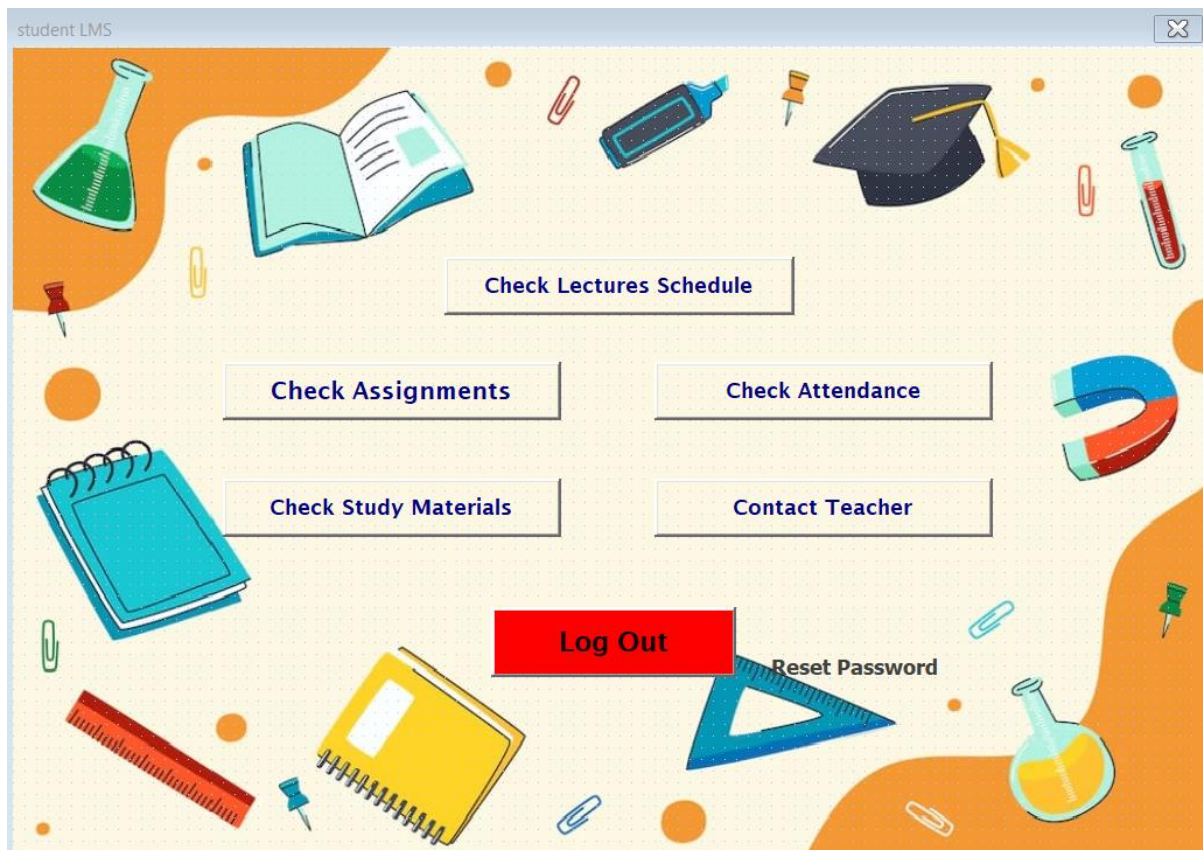
These input fields are essential for user authentication.

2. Login Button:

Users can click this button to submit their login credentials and access their account

2).Student LMS

After login is done, if role of a user is a student, then this user form appears, it's a student level LMS system where student accesses the LMS within their area of accessibility,

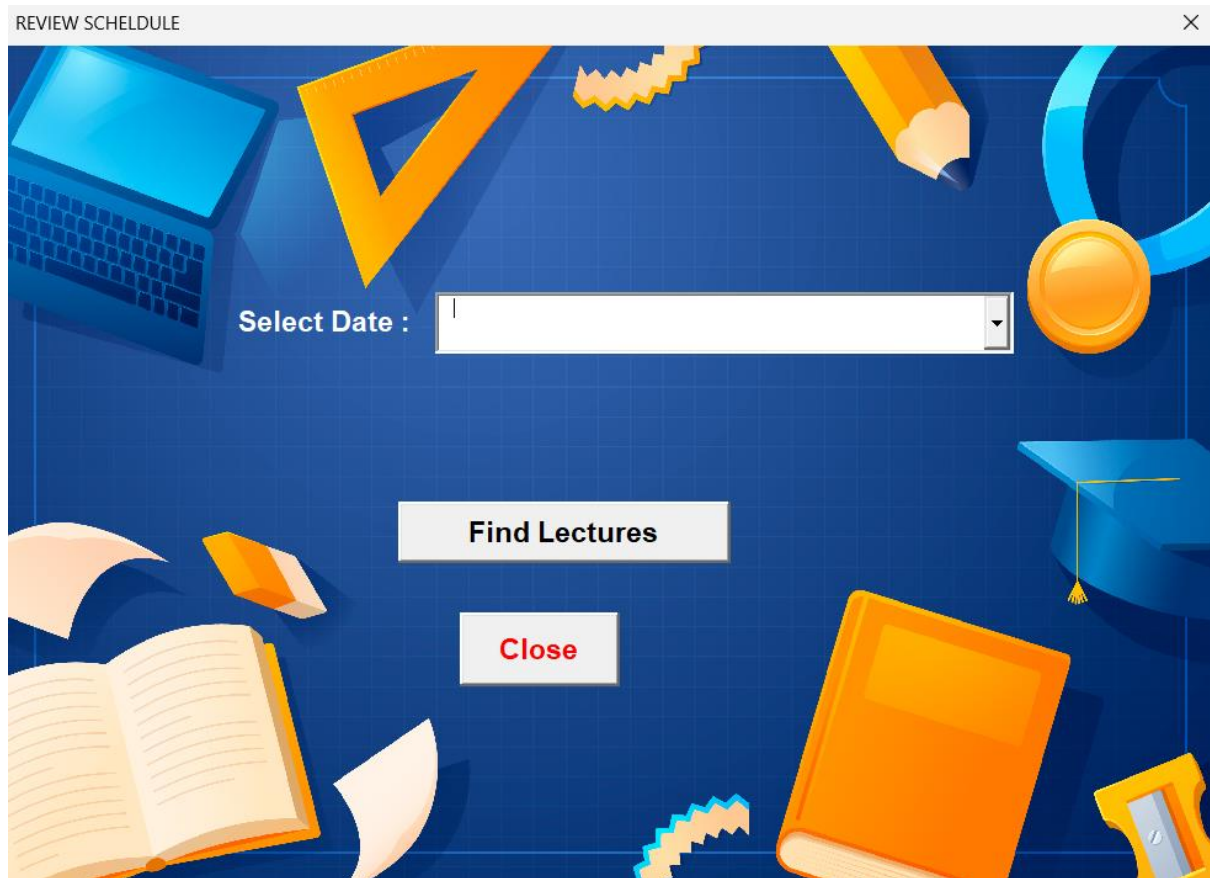


. Interactive Buttons:

. There are several buttons with different functionalities:

1). Check Lectures Schedule:

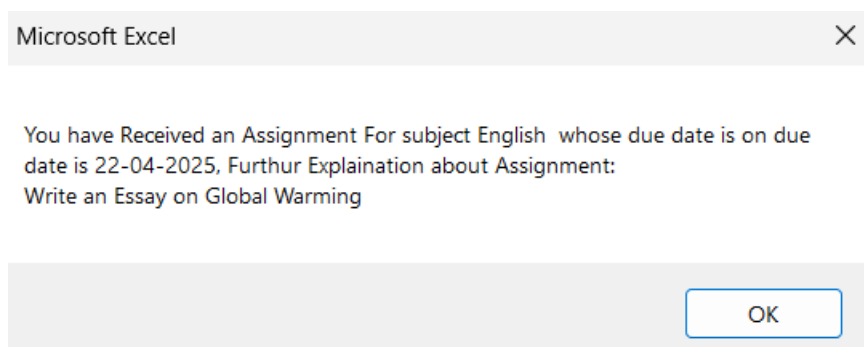
Students can use this feature to view their lecture schedules. Students enter date on which they wanna check if the lecture is scheduled. It provides information about class timings, subjects. If lecture is not scheduled it just says “No lectures Scheduled”



2). Check Assignments:

Students can access their assignment details through this option.

It displays upcoming assignments, submission deadlines, and any additional instructions.




3). Check Attendance:

This feature allows students to monitor their attendance.

It shows the number of classes attended or missed.

Check Your Attendance

×



**BACK
TO
SCHOOL**

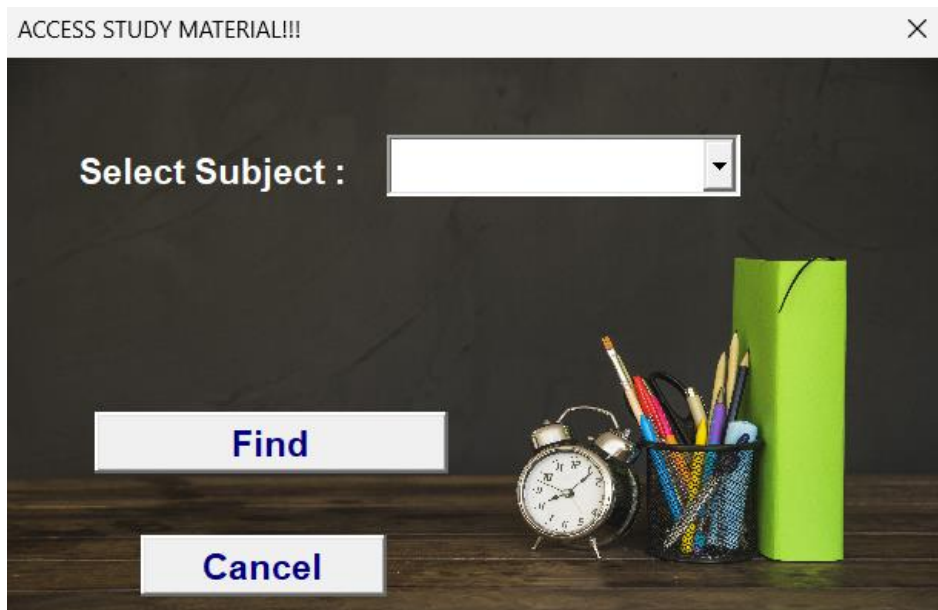
Select a Subject

Get attendance Record

4). Check Study Materials:

Students can find study materials such as lecture notes, presentations, and reference materials.

It provides easy access to course-related content.



ACCESS STUDY MATERIAL!!!

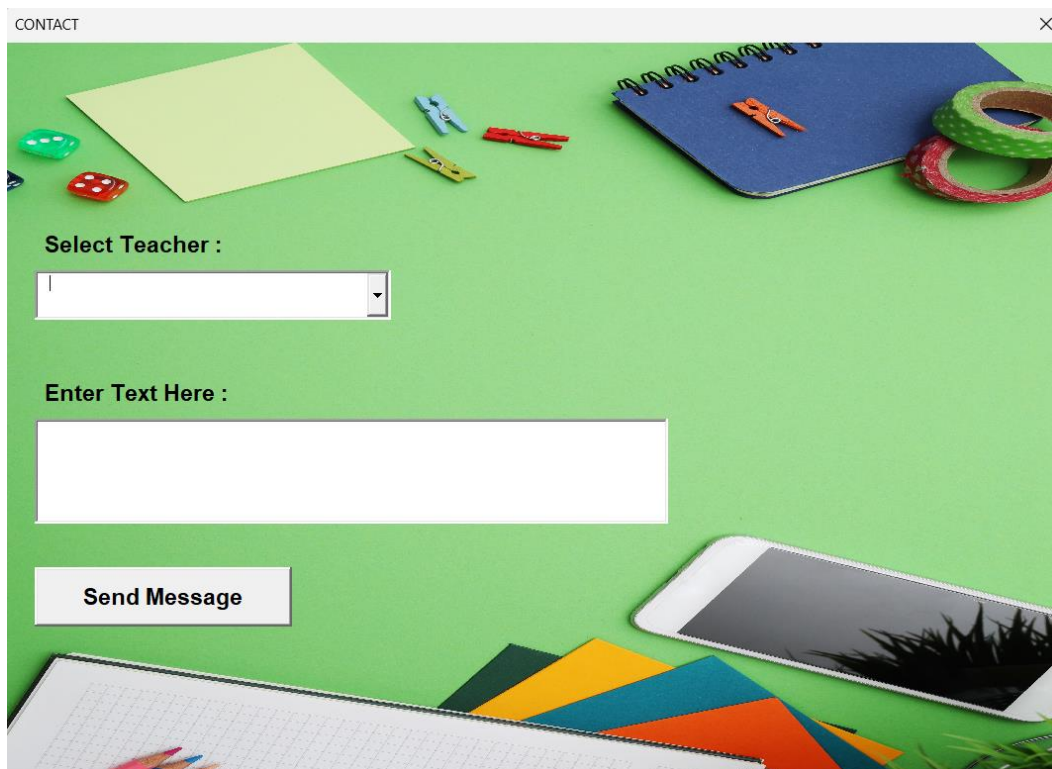
Select Subject :

Find

Cancel

5). Contact Teacher:

Students can use this option to communicate with their teachers. They can send message to particular teacher through this user form



CONTACT

Select Teacher :

Enter Text Here :

Send Message

6). Log Out:

Click this button to securely log out of your account.

It will terminate your current session.

7). Reset Password:

If you feel you got a weak password, you can click here to reset your password and set a new one, just be aware that you don't set a password that you forget it yourself, on clicking it will ask you to first enter your current password, if its right it asks you to enter new password twice. And then password is reset.

Microsoft Excel

×

Enter your old password

OK

Cancel

123

Microsoft Excel

×

enter your new password

OK

Cancel

222

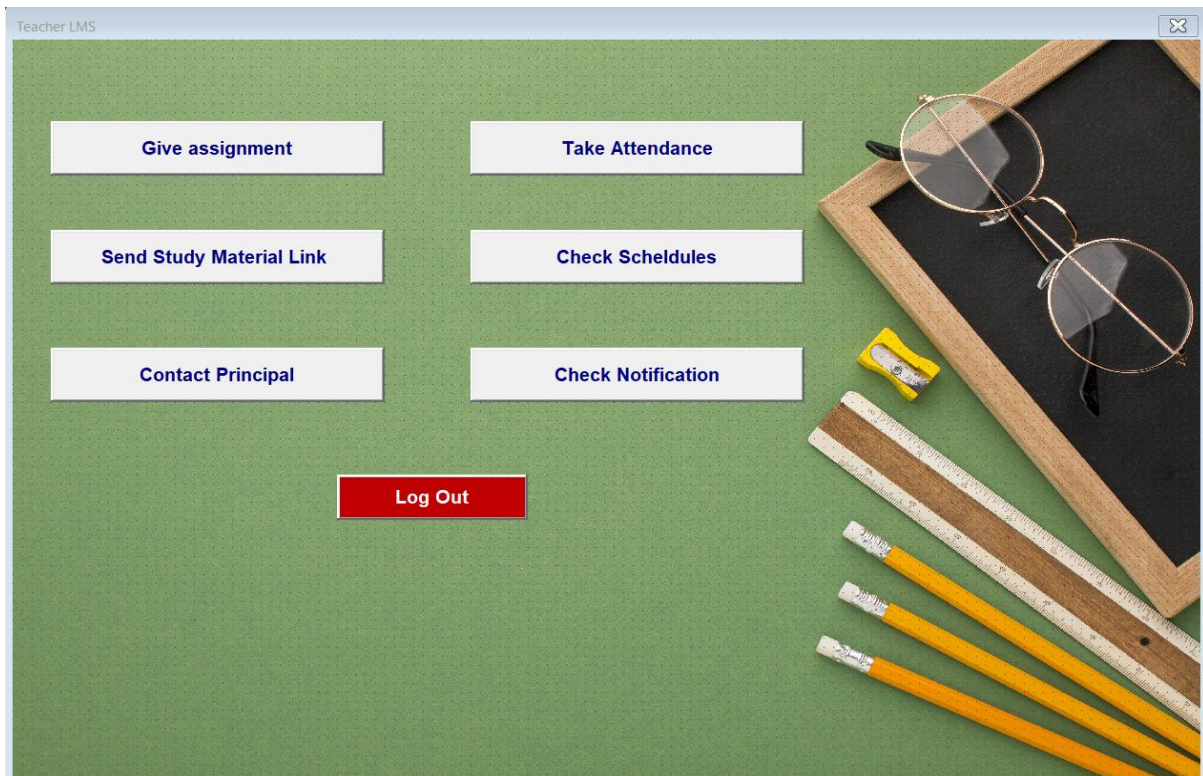
Microsoft Excel

×

Password updated successfully

OK

3). Teacher LMS:- If a role of a user is teacher, he will see the Teacher LMS user form, in this user form teacher can give assignments to a class, take attendance if their lecture is scheduled today, send study material link to particular class, check their lectures schedules, contact their principal and check notification where they will see if they have received any message from student/principal

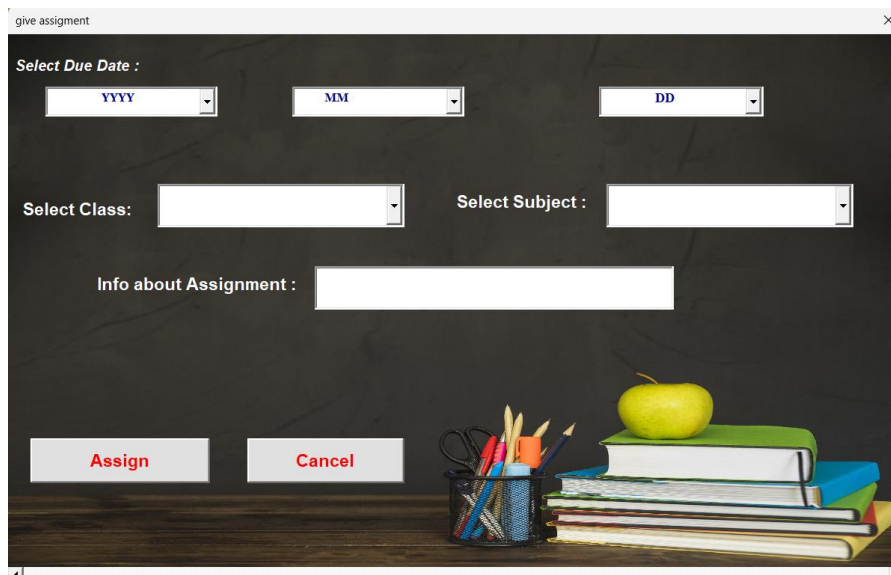


. Interactive Buttons:

. There are several buttons with different functionalities:

1). Give Assignment:

This button will pop up a user form where teachers can select a due date of assignment, class to which assignment is given, subject of assignment and additional information about that assignment



give assignment

Select Due Date :

YYYY MM DD

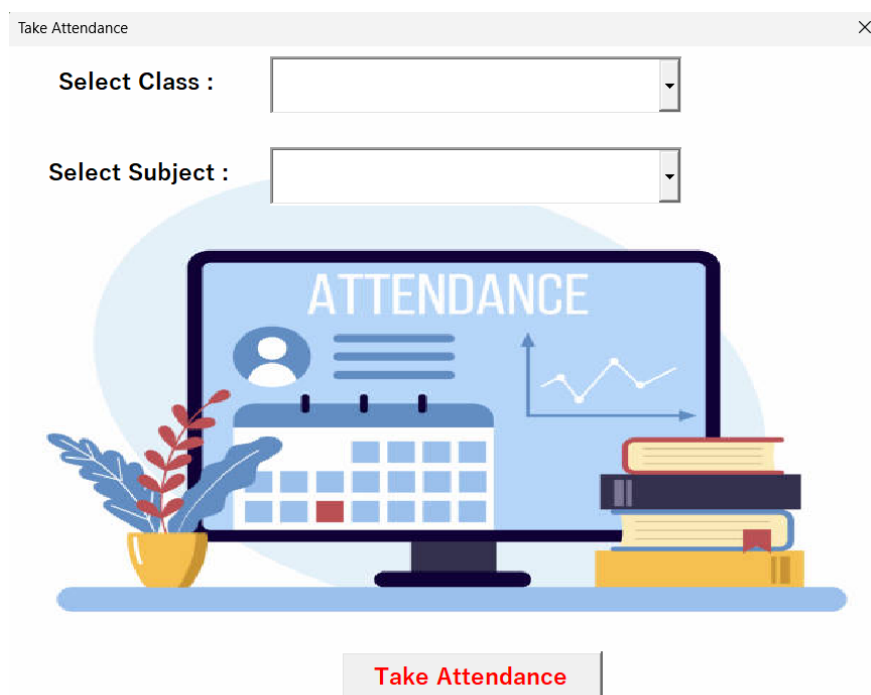
Select Class: Select Subject :

Info about Assignment :

Assign Cancel

2). Take Attendance:

By clicking on this button, teacher can take attendance if he has a lecture scheduled today, he will select a class and a subject for which attendance is to be taken. On clicking Take attendance, name and roll no. of each student of that class will appear one by one and teacher gets two option present/absent to mark attendance of that student



Take Attendance

Select Class :

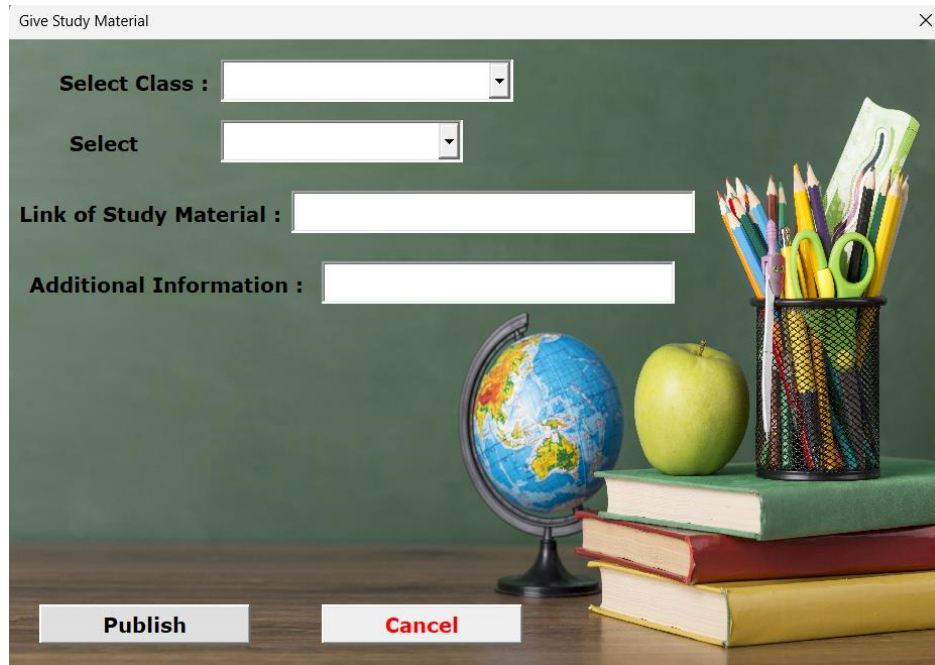
Select Subject :

ATTENDANCE

Take Attendance

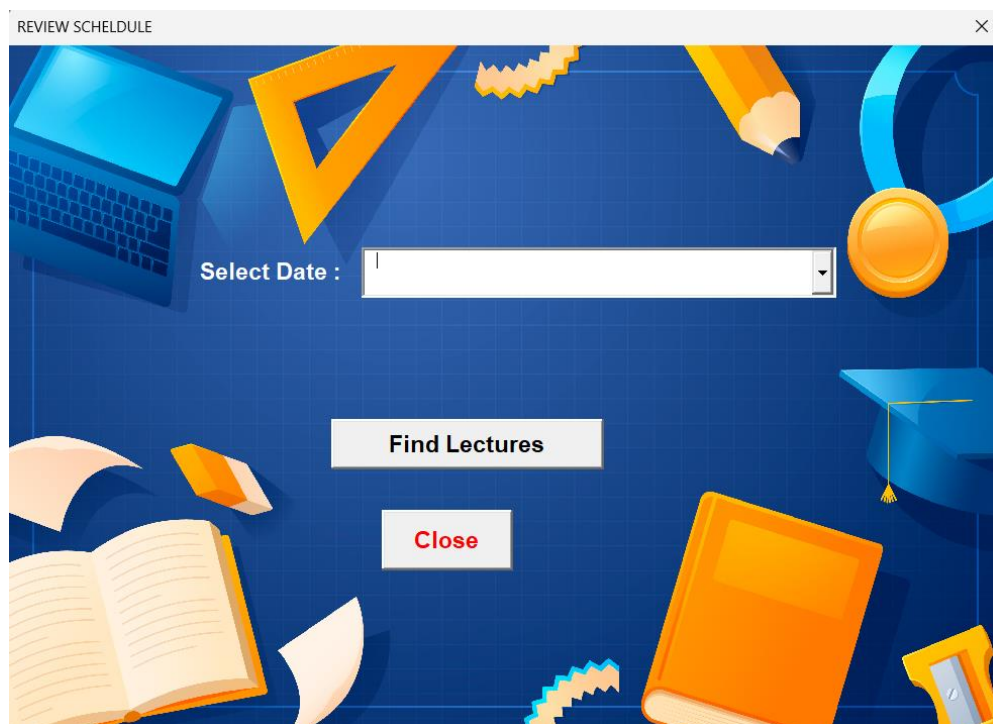
3). Send Study Material Link:

This button allows Teachers can share study materials links with students, here they add information like class for which study material is, subject of which the study material is, link of study material and additional information about it, on clicking publish it gets stored in class information sheet



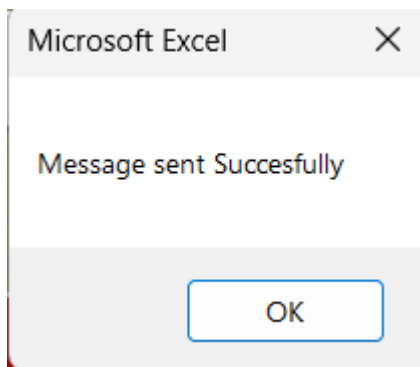
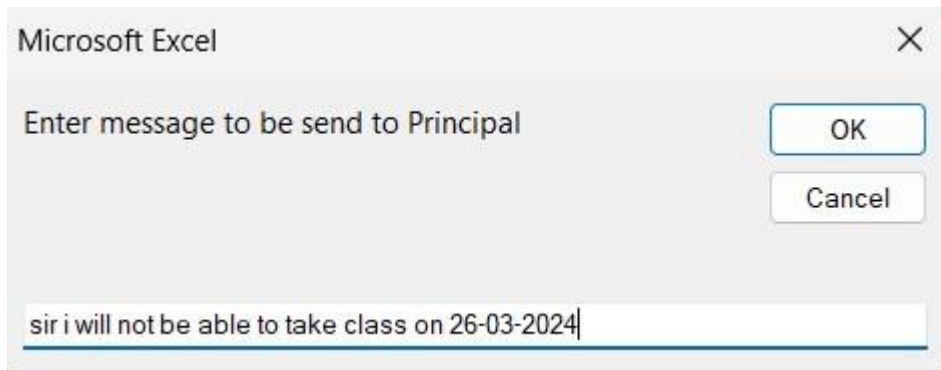
4). Check Schedules:

This button allows Teachers to check if there is lectures scheduled for them by the coordinator, here the teacher selects a date for which he wants to check lecture schedule, if lecture is scheduled on that particular day, it will appear, else it will say no lectures scheduled



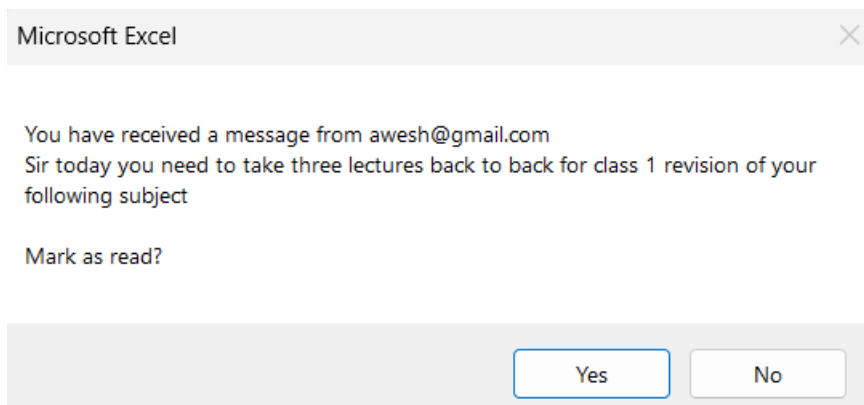
5). Contact Principal:

This button allows teachers to communicate with the school principal/coordinator. They type in the message which they want to send to coordinator and press ok



6). Check Notification:

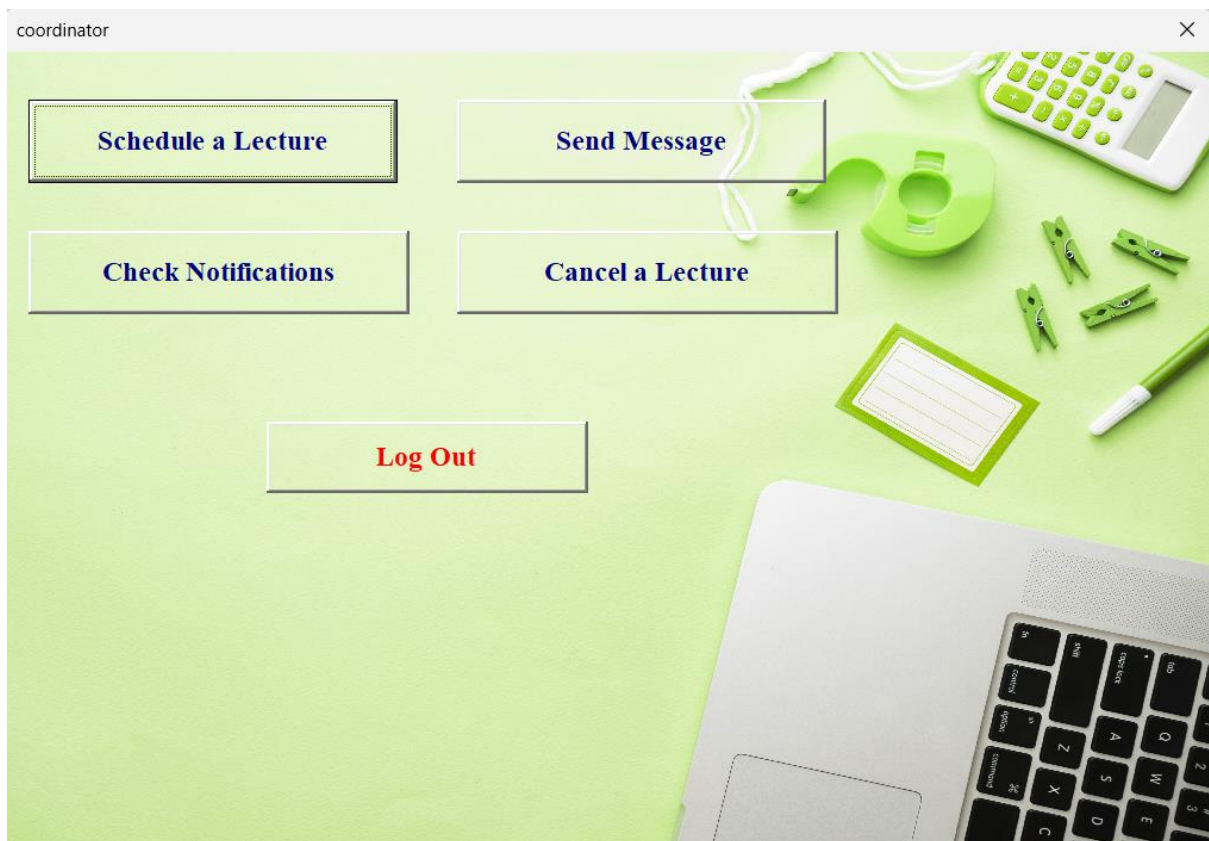
This button allows Teachers to check if they have received any message from student/coordinator, on clicking Yes , the message is set as Read which means that message will not appear for that teacher again.



7). Log Out:

Clicking this button securely logs out the teacher from the system.

4). Coordinator LMS: If a user has a Coordinator role, this user form will appear, Coordinator has lesser but powerful options, he can schedule a lecture for a particular teacher, send message to any teacher, check his inbox if he has received any message also, he can cancel the particular lecture.

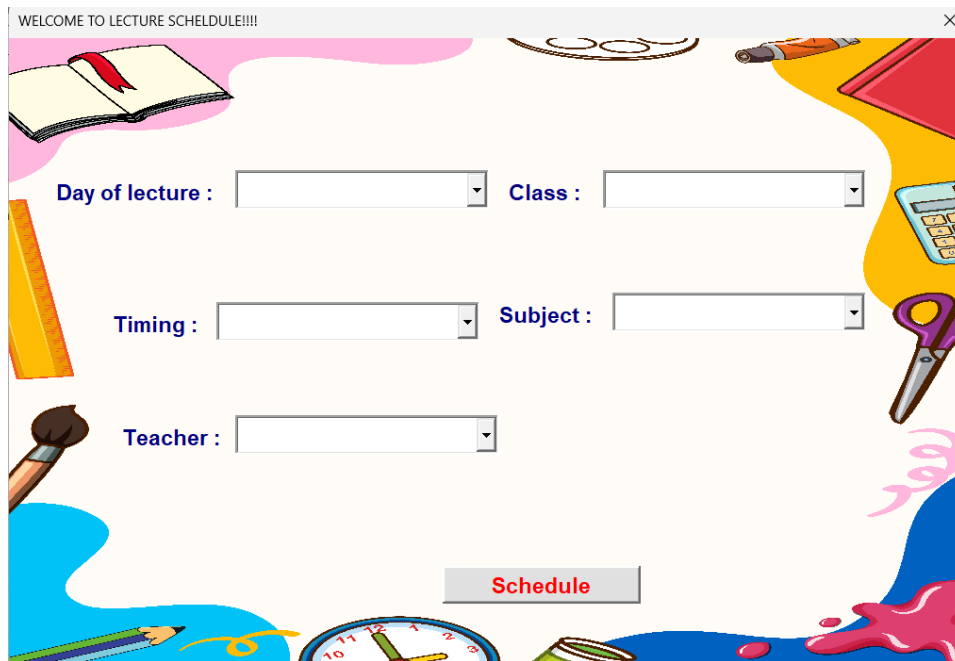


. Interactive Buttons:

. There are several buttons with different functionalities:

1).Schedule a Lecture :

The coordinator can schedule the lectures and assign the lectures to the individual teacher for the respected class on the given timing, the user form asks for the date on which lecture should be scheduled, class for which lecture is scheduled, timing of lecture ,subject for which the lecture is scheduled and the faculty. On clicking schedule the lecture will be scheduled and added in lectures sheet.



WELCOME TO LECTURE SCHEDULE!!!!

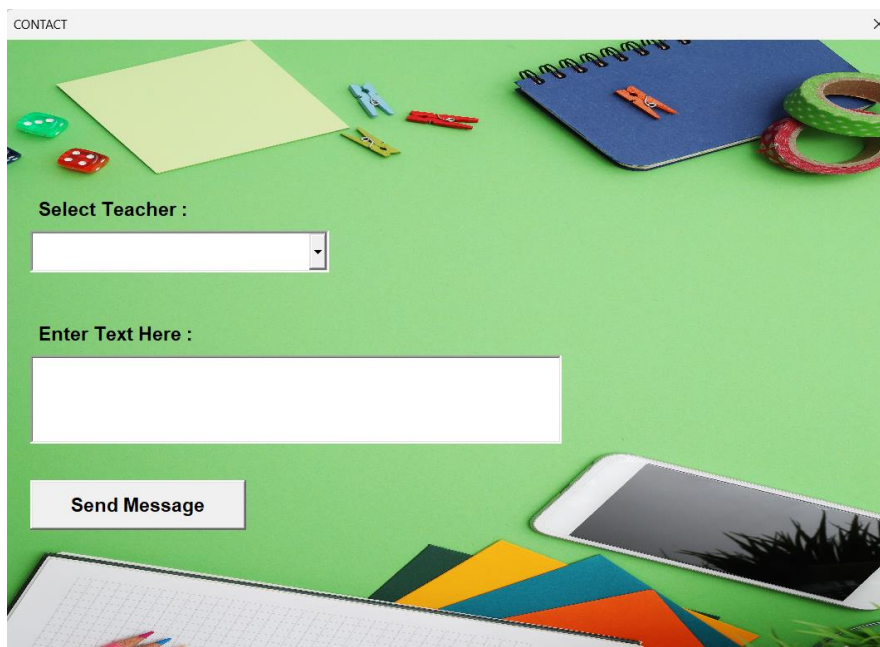
Day of lecture : Class :

Timing : Subject :

Teacher :

2).Send Message :

The coordinator has the authority and privileges to send the important notice or announcements to each and every Individual teacher and assign the important task to complete following targets



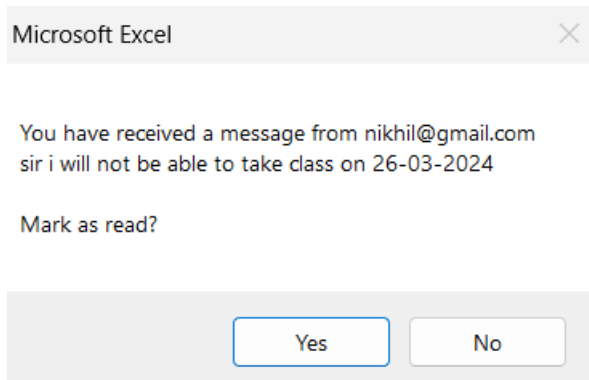
CONTACT

Select Teacher :

Enter Text Here :

3).Check Notifications :

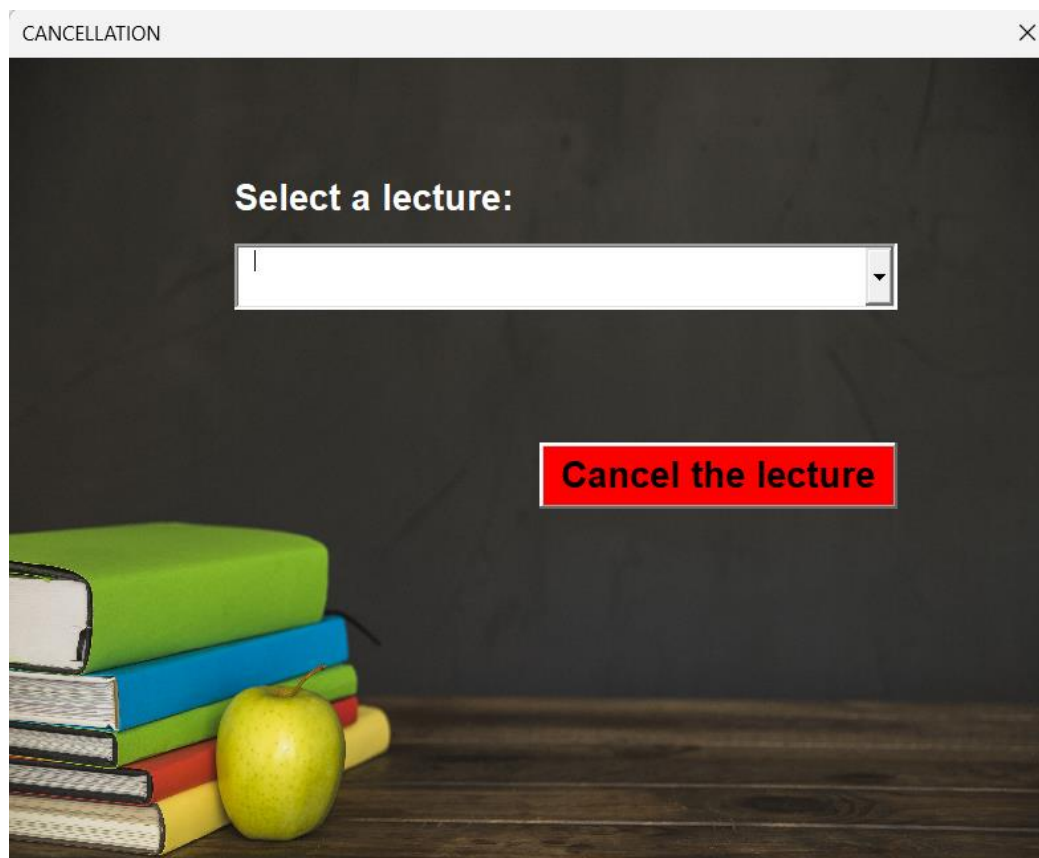
Clicking on this button, all the messages will appear one by one which are sent to our dear coordinator, on clicking yes, the particular message will be marked as read and won't appear again.



4). Cancel a Lecture :

The coordinator can cancel a lecture if not required or due to faculty unavailability on the present day

Or else some other events may be going on for some reason lecture can be cancelled by the coordinator, a dropdown list will appear where coordinator will select a lecture, and on clicking cancel the lecture, that lecture will be cancelled and removed from lectures worksheet



5). Log Out :

Clicking this button securely logs out the coordinator from the system.