

# **Calendar Web System**

## **myCalendar**

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BSIT-2205

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- **System Overview:**



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myCalendar is a web-based platform designed to offer users a flexible, intuitive, and organized scheduling experience. It allows users to create events at any preferred date and time, customize event colors for easier identification, and receive timely notifications to stay on track.

Users can sign up to create a new account or log in to an existing one. Once logged in, they can easily add events. For recurring events, the system prompts users with the option to "Update/Cancel all occurrences or just this instance?" when changes are made. Non-recurring events are saved directly. Users have full control over their events—they can update details, reschedule through drag-and-drop functionality, cancel events, or mark them as Completed, Pending, or Cancelled.

To enhance productivity and reminders, users can set custom reminder times for each event. The system then sends both a notification and an email at the chosen time. If the reminder is set exactly five minutes before the event, a special email notification is triggered. Otherwise, the system sends a standard notification at the selected time.

On the admin's side, they can manage user roles, create system-wide announcements, monitor user events, and review activity through audit logs, ensuring the platform remains secure and well-regulated for all users.

### ● Introduction

Welcome to myCalendar, a simple yet powerful web-based scheduling platform designed to help users stay organized and manage their time more efficiently. The name "myCalendar" reflects the system's goal — to be a personal, user-centered calendar that adapts to your needs.

Whether you're tracking appointments, managing daily tasks, or planning events, myCalendar offers a clean interface and essential features that make time management easy and intuitive. With secure login and signup functionalities, a role-based dashboard, and a focus on user-friendly design, this system ensures both functionality and accessibility for all users.

### ● Objectives

- Provide a user-friendly calendar interface that allows users to create, view, and manage events efficiently.
- Allow event customization such as setting the date, time, and color to help users visually organize their schedules.
- Support recurring events with smart prompts for updating or canceling all instances or a single occurrence.
- Enable full event control, including the ability to modify details, reschedule using drag-and-drop, update status (Completed, Pending, Cancelled), and delete events.
- Offer a reminder system where users can set custom reminder times and receive notifications and emails accordingly.
- Ensure timely alerts, including a specific email reminder for events with reminders set five minutes before the start.



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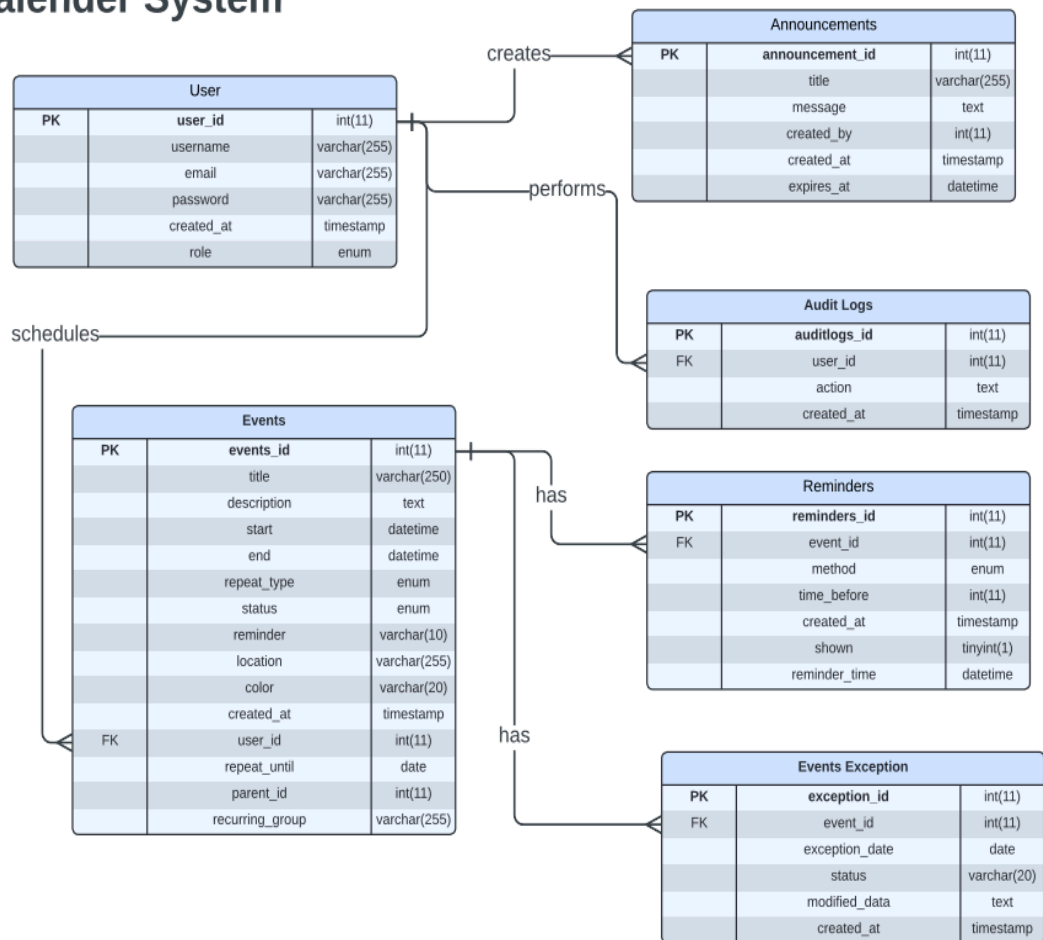
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- Provide secure user account management, allowing users to sign up, log in, and manage their calendar privately.
  - Equip administrators with tools to manage user roles, post announcements, view user events, and access audit logs for monitoring system activity.
  - Enhance productivity and organization through personalized event tracking and timely notifications.
  - Maintain system integrity and user accountability through admin oversight and activity logging features.
- **Data Sources and Preparation**

**Entity Relationship Diagram**

**Calender System**



**Tables Used**



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**Announcements Table**

- id (Primary) – int(11),  
AUTO\_INCREMENT, Not Null
- title – varchar(255),  
utf8mb4\_general\_ci, Nullable, Default:  
NULL
- message – text, utf8mb4\_general\_ci,  
Nullable, Default: NULL
- created\_by (Index) – int(11), Nullable,  
Default: NULL
- created\_at – timestamp, Not Null,  
Default: current\_timestamp()
- expires\_at – datetime, Nullable,  
Default: NULL

**Audit Logs Table**

- id (Primary) – int(11),  
AUTO\_INCREMENT, Not Null
- user\_id (Index) – int(11), Nullable,  
Default: NULL
- action – text, utf8mb4\_general\_ci,  
Nullable, Default: NULL
- created\_at – timestamp, Not Null,  
Default: current\_timestamp()

**Event Exceptions Table**

- exception\_id (Primary) – int(11),  
AUTO\_INCREMENT, Not Null
- event\_id (Index) – int(11), Not Null
- exception\_date (Index) – date, Not  
Null
- status – varchar(20),  
utf8mb4\_general\_ci, Nullable, Default:  
'excluded'
- modified\_data – text,  
utf8mb4\_general\_ci, Nullable, Default:  
NULL
- created\_at – timestamp, Not Null,  
Default: current\_timestamp()

**Events Table**

- id (Primary) – int(11),  
AUTO\_INCREMENT, Not Null
- title – varchar(255),  
utf8mb4\_general\_ci, Not Null
- description – text,  
utf8mb4\_general\_ci, Nullable,  
Default: NULL
- start – datetime, Not Null
- end – datetime, Not Null
- repeat\_type – enum('none', 'daily',  
'weekly', 'monthly'),  
utf8mb4\_general\_ci, Nullable,  
Default: 'none'
- status – enum('pending',  
'completed', 'cancelled'),  
utf8mb4\_general\_ci, Nullable,  
Default: 'pending'
- reminder – varchar(10),  
utf8mb4\_general\_ci, Nullable,  
Default: '15'
- location – varchar(255),  
utf8mb4\_general\_ci, Nullable,  
Default: NULL
- color – varchar(20),  
utf8mb4\_general\_ci, Nullable,  
Default: NULL
- created\_at – timestamp, Not Null,  
Default: current\_timestamp()
- user\_id – int(11), Nullable,  
Default: NULL
- repeat\_until – date, Nullable,  
Default: NULL
- parent\_id – int(11), Nullable,  
Default: NULL
- recurring\_group – varchar(255),  
utf8mb4\_general\_ci, Nullable,  
Default: NULL



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### Reminders Table

- id (Primary) – int(11),  
AUTO\_INCREMENT, Not Null
- event\_id (Index) – int(11), Nullable,  
Default: NULL
- method – enum('popup', 'email', 'sms'),  
utf8mb4\_general\_ci, Nullable, Default:  
NULL
- time\_before – int(11), Nullable,  
Default: NULL
- created\_at – timestamp, Not Null,  
Default: current\_timestamp()
- shown – tinyint(1), Nullable, Default:  
0
- reminder\_time – datetime, Nullable,  
Default: NULL

### Users Table

- id (Primary) – int(11),  
AUTO\_INCREMENT, Not Null
- username – varchar(255),  
utf8mb4\_general\_ci, Not Null
- email (Index) – varchar(255),  
utf8mb4\_general\_ci, Not Null
- password – varchar(255),  
utf8mb4\_general\_ci, Not Null
- created\_at – timestamp, Not Null,  
Default: current\_timestamp()
- role – enum('user', 'admin'),  
utf8mb4\_general\_ci, Nullable,  
Default: 'user'

### SQL Used

#### after\_announcement\_create()

```
BEGIN
    INSERT INTO audit_logs (user_id, action, created_at)
    VALUES (NEW.created_by,
            CONCAT('Created announcement: ', NEW.title,
                ' (ID: ', NEW.id,
                ', Expires: ', IFNULL(NEW.expires_at,
                'Never'), ')'),
            NOW());
END
```

#### after\_announcement\_delete()

```
BEGIN
    INSERT INTO audit_logs (user_id, action, created_at)
    VALUES (OLD.created_by,
            CONCAT('Deleted announcement: ', OLD.title,
                ' (ID: ', OLD.id,
                ', Originally expired: ',
                IFNULL(OLD.expires_at, 'Never'), ')'),
            NOW());
END
```

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### after\_announcement\_update()

```
BEGIN
    DECLARE changes TEXT DEFAULT '';

    -- Check which fields changed
    IF NEW.title != OLD.title THEN
        SET changes = CONCAT(changes, 'title: ', OLD.title, ' → ', NEW.title, ',
    ');
    END IF;

    IF NEW.expires_at != OLD.expires_at THEN
        SET changes = CONCAT(changes, 'expires_at: ', IFNULL(OLD.expires_at, 'Never'),
        ' → ', IFNULL(NEW.expires_at, 'Never'), ', ');
    END IF;

    -- Only log if something actually changed
    IF changes != '' THEN
        -- Remove trailing comma and space
        SET changes = SUBSTRING(changes, 1, CHAR_LENGTH(changes) - 2);

        INSERT INTO audit_logs (user_id, action, created_at)
        VALUES (NEW.created_by,
            CONCAT('Updated announcement ID ', NEW.id, ': ', changes),
            NOW());
    END IF;
END
```

### after\_user\_role\_change()

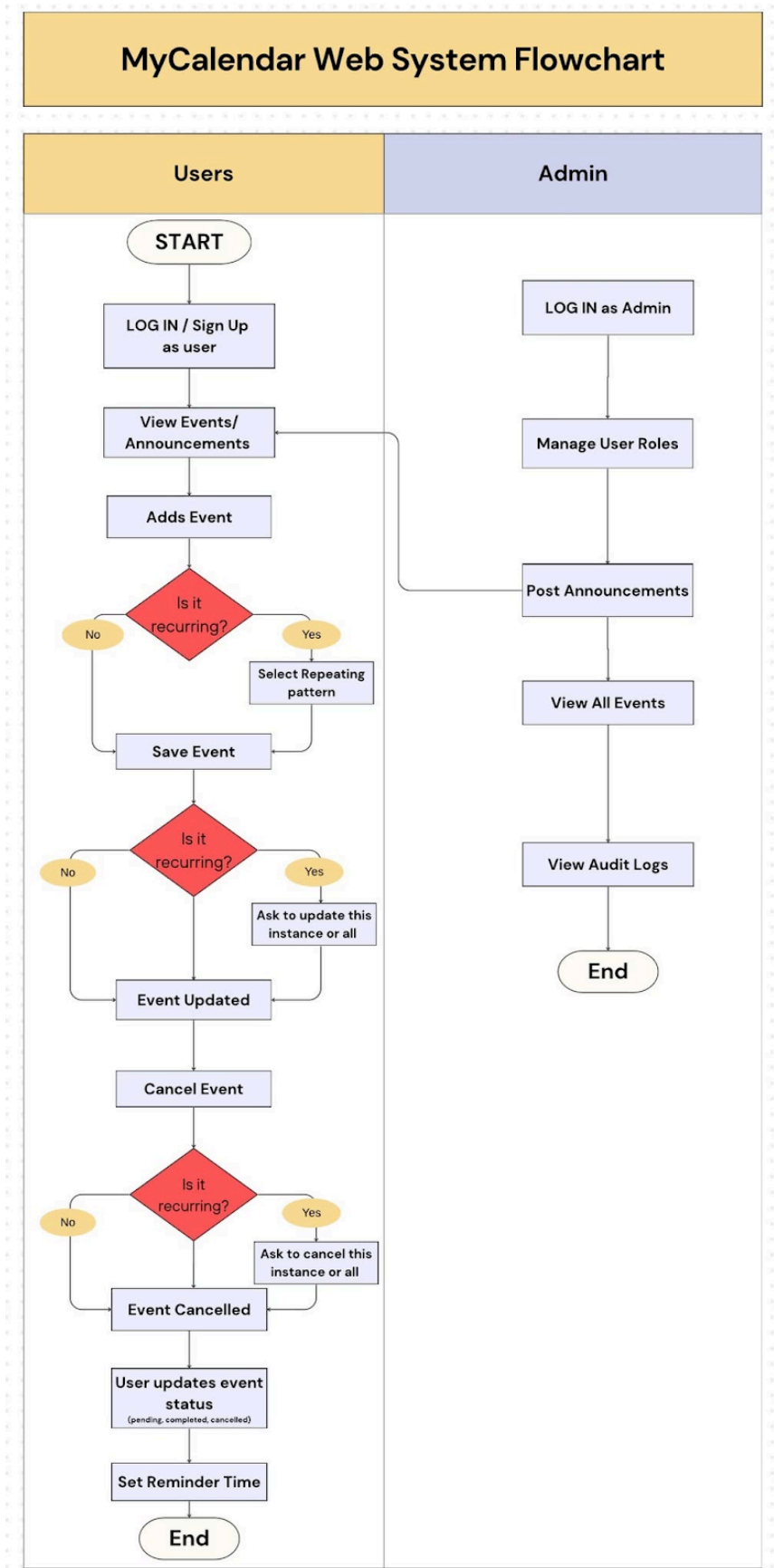
```
BEGIN
    -- Only log if the role was changed and it was done by an admin
    IF NEW.role != OLD.role THEN
        -- Find the admin who made this change (assuming current_user() is available)
        -- Note: In practice, you might need to track who made the change in your application
        -- and pass it to the database, as MySQL doesn't natively track who executes
        statements

        INSERT INTO audit_logs (user_id, action, created_at)
        VALUES (NEW.id,
            CONCAT('User role changed from ', OLD.role,
                ' to ', NEW.role,
                ' for user ', NEW.username),
            NOW());
    END IF;
END
```



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Flowchart







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- Screenshots
  - Main Features

### Calendar System Login

Username

Password

Login

Don't have an account? [Sign up here](#)

Log in

### Calendar System Sign Up

Username

Email

Password

Register

Already have an account? [Login here](#)

Sign up

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Hello, Guest!

Welcome to your personal calendar dashboard

Pending Tasks

0

Completed Tasks

0

Login

Notifications

Export CV

<

>

today

May 2025

month

week

day

SUN	MON	TUE	WED	THU	FRI	SAT
27	28	29	30	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17

Welcome Page

Dashboard

Users Management

All Events

Announcements

Audit Logs

Admin Dashboard

Users Management

Manage system users and their permissions

All Users

Show

entries

ID	USER	EMAIL	REGISTERED	ROLE	EVENTS	ACTIONS
1	<div>D</div> danahparis	micadanah21@gmail.com	May 02, 2025	User	18	<div>User</div> <div></div>
3	<div>M</div> micadanah	danahparis.inf@gmail.com	May 02, 2025	User	11	<div>User</div> <div></div>
4	<div>K</div> kuromi21_22	danah@gmail.com	May 02, 2025	User	2	<div>User</div> <div></div>
7	<div>A</div> admin	christianpaulmendoza10@gmail.com	May 04, 2025	Admin	0	<div>Admin</div> <div></div>
9	<div>A</div> andoks	andoks.new21@gmail.com	May 08, 2025	User	11	<div>User</div> <div></div>

Admin - User Management



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Dashboard

Users Management

All Events

Announcements

Audit Logs

Admin Dashboard

Announcements

Create and manage system announcements

Create New Announcement

Title

Message

Expires At

dd/mm/yyyy --:-- --

Create Announcement

Active Announcements

Pe Final Project

Final Requirement in Pe

By: admin | Expires: May 10, 2025 09:44

May 05, 2025 18:42

Information Management

Final Project Submission

By: danahparis | Expires: May 08, 2025 20:31

May 05, 2025 18:29

Admin - Announcements

Dashboard

Users Management

All Events

Announcements

Audit Logs

Admin Dashboard

All Events

View and manage all system events

Status

Date Range

User

Search

All Statuses

All Dates

All Users

Search events...

Show 25 entries

ID	TITLE	USER	START	END	REPEAT	STATUS	ACTIONS
1	My dog's birthday	micadanah	May 02, 2025 07:24	May 03, 2025 19:24	Weekly	Completed	
2	Saturday Project Presentation	micadanah	May 03, 2025 07:00	May 03, 2025 16:00	None	Pending	
3	Final Project Presentation	danahparis	May 04, 2025 14:59	May 04, 2025 14:59	Daily	Cancelled	
4	new event	micadanah	May 30, 2025 08:30	May 30, 2025 22:30	Weekly	Cancelled	
5	reverse?	micadanah	May 01, 2025 20:56	May 31, 2025 20:56	None	Cancelled	

Admin - Events

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Dashboard

Users Management

All Events

Announcements

Audit Logs

Admin Dashboard

Audit Logs

System activity and user actions

Recent Activity

User

All Users

Date Range

All Dates

Search

Search logs...

Show

50

entries

ID	USER	ACTION	TIMESTAMP
66	admin	Changed status for event ID 1 to completed	May 05, 2025 14:04:52
67	admin	Changed status for event ID 1 to completed	May 05, 2025 14:05:15
68	admin	Changed status for event ID 3 to cancelled	May 05, 2025 14:22:29
69	admin	Changed status for event ID 1 to completed	May 05, 2025 14:22:53
70	admin	Updated role for user ID 1 to admin	May 05, 2025 14:22:58
71	admin	Updated role for user ID 1 to admin	May 05, 2025 14:23:00

Admin - Audit Log

Event Details

Title: 5 minutes

Start: 2025-05-08 11:15

End: 2025-05-08 12:00

Repeat: Does not repeat

Description: N/A

Location: N/A

Status: Completed

Color:

Reminder: 5 minutes before

Edit Event

Cancel Event

Close

Event Details



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Reminder: eat dinner

My Calendar Reminders

sa ako

Isalin sa Filipino

6:33 PM (22 minuto ang nakalipas)

☆ 😊 ↶ ⋮

Reminder: eat dinner

You have an upcoming event:

Event Time: 2025-05-08 18:49:00

?

If you have any questions, feel free to [contact us](#).

♥

Thank you for using My Calendar!

Reminder

Logout

Notifications

Export CV

Project Submission

Event: 5/9/2025, 1:09:00 PM

Reminder was set for 5/8/2025, 1:09:00 PM

Starts in 18 hours 13 minutes

PE class

Event: 5/9/2025, 12:47:00 PM

Reminder was set for 5/8/2025, 12:47:00 PM

Starts in 17 hours 51 minutes

THU

SAT

3

Notification