

Assignment for MERN Stack Developer

Required Stack:

- **Frontend:** React
- **Backend:** Express.js
- **Database:** MongoDB
- **State Management:** Any external library (Redux, Zustand, Recoil, etc.)
Timezone Management: Preferably dayjs or any suitable library

Assignment Walkthrough (Recording Link) :

<https://www.loom.com/share/5528d6e35a184007a37e222949400279?sid=29d37e93-3098-4bc6-bfe1-429f5c9d25ab>

Project Overview

Build an **Event Management System** where an admin can create multiple profiles and manage events across multiple users and timezones. where users can view, update, and create events, respecting their selected timezone.

Functional Requirements

Profiles

- Admin can create multiple user profiles by entering a name.
- No functionality is required for deleting profiles.

Event Creation

- Admin (or any user) can create events for one or multiple profiles at the same time.
- Event fields:
 - Profiles: Select one or more users.
 - Timezone: Pick a timezone for the event.
 - Start Date + Time: Calendar + time selector.
 - End Date + Time: Calendar + time selector.

Rules:

- End date/time cannot be in the past relative to the selected start date/time.
- Start and end times should respect the selected timezone of the user(s).

Event Viewing & Updating

- Users can view all events assigned to them.
- Users can update all events assigned to them.
- Each event stores:

- createdAt (timestamp in user timezone)
- updatedAt (timestamp in user timezone)

Multi-timezone handling:

- Each user can pick their own timezone.
- All events must display according to the user's selected timezone.
- Updating events should reflect properly across all users' selected timezones.

Bonus / Extra Credit

Event Update Logs:

- Whenever an event is updated, log the change.
- Show previous vs. updated values and the timestamp of the update in the user's selected timezone.
- If a user changes their timezone, all timestamps and logs should automatically convert to the new timezone.

Submission Requirements

1. Github repo link and Live preview link.
2. Video Link explaining the project and its nuances
3. submit here

<https://docs.google.com/forms/d/e/1FAIpQLSe7zrp9PXTaMo0zyxvOOCTDznIrkR5PuhiErwzXRWQWZjwrA/viewform>

SNAPSHOTS FOR INSPIRATION

Event Management

Create and manage events across multiple timezones

Create Event

Profiles

Select profiles...

Timezone

Eastern Time (ET)

Start Date & Time

Pick a date
09:00
○

End Date & Time

Pick a date
09:00
○

+ Create Event

Select current profile...

Events

View in Timezone

Eastern Time (ET)

No events found

Event Management

Create and manage events across multiple timezones

Create Event

Profiles

Timezone

Start Date & Time

End Date & Time

+ Create Event

anuj



Q Search current profile...

✓ anuj

alpha

Events

View in Timezone

Eastern Time (ET)

beta

Add

No events found

Event Management

Create and manage events across multiple timezones

Create Event

Profiles

2 profiles selected

+ Add Profile

End Date & Time

+ Create Event

anuj



Events

View in Timezone

Eastern Time (ET)

No events found

Event Management

Create and manage events across multiple timezones

anuj



Create Event

Profiles

2 profiles selected

Timezone

India (IST)

Start Date & Time

October 15th, 2025

09:00

End Date & Time

Pick a date

09:00

Create Event

Su	Mo	Tu	We	Th	Fr	Sa
28	29	30	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	1

Events

View in Timezone

Eastern Time (ET)

No events found

Event Management

Create and manage events across multiple timezones

anuj



Create Event

Profiles

Select profiles...

Timezone

Eastern Time (ET)

Start Date & Time

Pick a date

09:00

End Date & Time

Pick a date

09:00

+ Create Event

Events

View in Timezone

Eastern Time (ET)

anuj, alpha

Start: Oct 14, 2025

0 11:30 PM

End: Oct 16, 2025

0 11:30 PM

Created: Oct 11, 2025 at 03:56 PM

Updated: Oct 11, 2025 at 03:56 PM

Edit

View Logs

