# Website for the staff of Mahindra University to share and sync their calendars

1) **Project Title:**
   **UNISYNC (website to synch the university faculty calendar)**

2) **Project Description:**
   The project is a web-based platform designed for the staff of Mahindra University (MU) to share and synchronize their calendars seamlessly. The platform aims to facilitate **efficient scheduling, reduce conflicts in meetings, and enhance coordination among faculty and staff members.**

3) **Scope of Work:**
   UniSync project emphasises on synchronising and making life easier for university's organisational staff by giving them a simple, intuitive way to manage and share their calendars. It is similar to a digital hub where all the faculty can stay on the same page. The website can help with scheduling team meetings, setting deadlines, avoiding lecture disturbances and keeping track of busy days.

   - **User Authentication & Role Management:** Login for Faculty & Admins Only: Only faculty and admins can log in and manage events.
     Role-Based Permissions:
     •Faculty: Add, edit, and delete course schedules.
     •Admins: Manage and approve all events, handle external calendar syncing.
   - **Calendar Integration:** Ability to add, edit, and delete events.
   - **Sharing and Syncing Feature**: Staff members can sync their schedules and share their calendars with colleagues (either one-on-one or with the entire team).
   - **Permissions & Privacy:** Users can set event visibility and access controls.
   - **Notifications & Alerts:**
     Faculty & Admins Receive Alerts, when an event is modified or pending approval.
   - **Search & Filter:** Finding events based on date, department, or user.
   - **Responsive Design:** Ensuring accessibility on different devices (desktop & mobile).
   - **An Admin Dashboard:** To keep things running smoothly
     For the folks managing the platform, we'll build an admin dashboard where they can: Manage user accounts and permissions.

**4) Technology Stack:**

- Front-End: HTML/CSS, AngularJS, NextJS v14
- Back-End: Node.js (We prefer this due to the vast libraries available and its ability to give fast real time updates)
- Database: Firebase Firestore(real-time updates and free to use)
- Calendar API: Google Calendar API / Microsoft Calendar API
- Authentication: Google OAuth (MU credentials)
- Deployment: Vercel
- Version Control: GitHub

**5) Team Members & Roles:**

| **Team Member** | **Roles** | **Responsibilities** |
|---|---|---|
| 1. Pavan Koushik .B<br>2. Abhinav .P | Frontend Development | - Develop UI/UX using AngularJS & Next.js<br>- Ensure mobile & desktop responsiveness<br>- Implement state management for smooth interactions<br>- Integrate API calls for fetching and updating calendar data |
| 3. Samyukta .G<br>4. Rishitez Reddy .D | Backend Development | - Develop REST APIs for event management & syncing<br>- Implement authentication using Google OAuth (MU credentials)<br>- Handle API security, rate limiting, and error handling<br>- Optimize backend performance for real-time updates |
| 5. Kushala .K<br>6. Sai Manasa .G | Database Management | - Design Firebase Firestore schema for real-time updates<br>- Implement CRUD operations for event storage<br>- Ensure data consistency and implement indexing for fast retrieval<br>- Secure user data with proper access controls |
| 7. Rishika .G<br>8. Vaibhav Naidu .N | Deployment, Integration and Testing | - Set up CI/CD pipeline and deploy the website using Vercel<br>- Conduct unit, integration, and user acceptance testing<br>- Identify and resolve performance bottlenecks<br>- Monitor and maintain post-deployment stability |

6) **Timeline & Milestones:**
    - Requirement Gathering (Week 1-2): Research, survey, and finalizing features.
    - Design Phase (Week 3): Creating wireframes and UI prototypes.
    - Development Phase (Week 4-9): Implementing front-end, back-end, and database integration.
    - Testing Phase (Week 9-10): Conducting unit and integration testing.
    - Deployment & Feedback (Week 11-12): Deploying the website and collecting user feedback.

## 7) Project Deliverables

- **A clean and intuitive website** for MU staff to log in, manage calendars, and collaborate.
- **Responsive design** that works on desktops, laptops, and tablets.
- **Visually appealing calendar** with smooth event creation, editing, and deletion.
- **Color-coded views** (Daily, Weekly, Monthly) for better organization.
- **Event details support** (descriptions, locations, attachments).
- **Customizable reminders** for notifications.
- **Real-time syncing** to ensure up-to-date schedules.
- **Faculty & admin workflow improvements** with reduced scheduling conflicts.
- **Students can view schedules but cannot modify them.**
- **Secure, scalable system** with successful deployment and documentation.