# **Technical Assignment: Calendar Application for Communication Tracking**

A React-based communication tracking system for managing and monitoring company interactions.

### **Features :**

#### **Admin Dashboard**

1. Add companies
2. Track contact information and communication preferences
3. View company communication history.

#### **Communication Tracking**

1. Log past communications
2. Schedule future interactions
3. Multi-company communication support
4. Color-coded status indicators.

#### **Calendar View**

1. Interactive calendar interface
2. View past and upcoming communications
3. Color-coded events by communication type
4. Detailed event information on click.

#### **Analytics Dashboard**

1. Communication frequency analysis
2. Engagement effectiveness metrics
3. Overdue communication trends
4. Exportable reports (PDF/CSV)

### **Prerequisites**

1. Node.js (v14.0.0 or higher)
2. npm (v6.0.0 or higher)

### **Installation**

1. Clone the repository:

<https://github.com/Saipraveen1234/Communication_Tracker.git>

* cd communication-tracker

1. Install dependencies:

* npm install

#### **Required Dependencies**

Core Dependencies :

* npm install @mui/material @emotion/react @emotion/styled
* npm install @mui/icons-material
* npm install @reduxjs/toolkit react-redux
* npm install react-router-dom

Calendar Dependencies

* npm install @fullcalendar/react @fullcalendar/daygrid @fullcalendar/timegrid @fullcalendar/interaction

Chart Dependencies

* npm install recharts

Export Dependencies

* npm install jspdf jspdf-autotable

### **Running The Application**

#### **Start the Development Server**

* npm start

It will automatically Navigate to the Port page, Incase if not use, By default it will run on port 3000.

* <http://localhost:3000>

## **Project Structure**

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└── Communication-Tracker/

├── Public/

│ └── index.html

├── src/

│ ├── components/

│ │ ├── Admin/

│ │ │ ├── AdminDashboard.jsx

│ │ │ ├── CommunicationParams.jsx

│ │ │ ├── CompanyList.jsx

│ │ │ ├── CompanyManagement.jsx

│ │ │ ├── CompanySetup.jsx

│ │ │ └── UserManagement.jsx

│ │ ├── Analytics/

│ │ │ ├── AnalyticsDashbord.jsx

│ │ │ ├── Insights.jsx

│ │ │ └── Reports.jsx

│ │ ├── Layout/

│ │ │ ├── Layout.jsx

│ │ │ └── Navigation.jsx

│ │ └── User/

│ │ ├── Calendar.jsx

│ │ ├── CommunicationActions.jsx

│ │ ├── CommunicationTracking.jsx

│ │ ├── NotificationSection.jsx

│ │ ├── TaskManager.jsx

│ │ └── UserDashboard.jsx

│ ├── redux/

│ │ └── slices/

│ │ ├── communicationMethodsSlice.js

│ │ ├── communicationTrackingSlice.js

│ │ ├── companySlice.js

│ │ ├── userSlice.js

│ │ └── store.js

│ ├── App.js

│ ├── index.css

│ └── index.js

├── Package.json

└── Readme.md

### **Usage Guide:**

#### 1. **Start the Development Server**

* Navigate to the Admin panel
* Add new companies with contact details
* View and manage existing companies

#### 2. **Communication Tracking**

* Use the Communications tab to log or schedule communications
* Select multiple companies for batch scheduling
* Add detailed notes and set communication types

#### 3. **Calendar View**

* View all communications in a calendar format
* Click on events for detailed information
* Switch between month, week, and day views

#### 4. **Analytics**

* View communication metrics and trends
* Filter data by date range and company
* Export reports as needed

### **Known Limitations:**

#### 1. **Data Persistence**

* Data is stored in Redux state and localStorage
* No backend database integration
* Data may be lost if localStorage is cleared

#### 2. **Performance**

* May slow down with large amounts of data
* Limited to browser storage capacity
* Calendar view performance may decrease with many events

#### 3. **Browser Support**

* Designed for modern browsers
* Limited support for older browser versions
* Best viewed in Chrome, Firefox, or Safari

#### 4. **Calendar Features**

* No drag-and-drop event rescheduling
* Limited recurring event support
* No calendar sync features

#### 5. **Export Limitations**

* Basic PDF/CSV export functionality
* Limited customization options for exports
* No direct email integration

### **Future Improvements:**

#### **Backend Integration**

* Database storage
* User authentication
* API integration

#### 2. **Enhanced Features**

* Calendar sync with Google/Outlook
* Email integration
* Advanced recurring events
* Mobile app support

#### 3.**Performance Optimization**

* Data pagination
* Lazy loading
* Caching mechanisms

### **THANK YOU**

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