Meet Web App: Case Study

Overview 🔍

Meet is a serverless Progressive Web App (PWA) built with React that allows users to search for upcoming events in different cities. The app integrates with the Google Calendar API to fetch event data and offers offline functionality, interactive data visualizations, and secure authentication via Google OAuth2.

Objective 🎯

The goal of this project was to create a modern, interactive application that enables users to browse and filter events seamlessly while ensuring offline accessibility and data visualization for better insights.

Features ✨

- **Browse Events**: View upcoming events from various locations with detailed information.
- **Filter by City**: Search for events happening in a specific city.
- **Data Visualization**: Interactive charts, including a scatterplot and pie chart, displaying event genre popularity.
- **Offline Access**: Access previously viewed events even without an internet connection.
- **Add to Home Screen**: Users can install the app as a PWA for quick access.
- **Google Authentication**: Sign in securely using a Google account.

Technologies 🛠️

- **React**: For building the user interface and managing states.
- **Recharts**: For interactive data visualizations, including scatterplots and pie charts.
- **Progressive Web App (PWA)**: Service workers for offline functionality and a manifest JSON for home screen installation.
- **AWS Lambda**: Serverless functions for authentication and API requests.
- **OAuth2** : Secure authentication via Google Sign-In.
- **Google Calendar API**: Fetches and displays event data.
- **Jest**: Unit and integration testing to ensure component functionality.
- **Cucumber**: Uses Gherkin syntax for acceptance testing.
- **Puppeteer**: End-to-end testing for UI interactions.

Conclusion 📝

Meet showcases my ability to develop a serverless PWA with offline access and real-time data visualization. The integration of testing frameworks ensures reliability, and the Google authentication enhances user security. The app delivers a smooth and responsive experience for browsing events across all devices.