

WeCasa

Calendar DAR Report

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Date Submitted: December 13 2022

Github Repository:

<https://github.com/githelsui/WeCasa>

Calendar DAR Version Table

| Version | Description | Date |
|------------|---|------------|
| 1.0 | Initial DAR <ul style="list-style-type: none">- Use Cases- Technologies, Metrics, Evaluation | 12/05/2022 |
| 1.1 | Content Improvements <ul style="list-style-type: none">- Reduced weights- Added more quantifiable metrics based on business needs | 12/07/2022 |
| 1.2 | Content Improvements <ul style="list-style-type: none">- Adjusted intervals for more precise scores- Added metrics for event configuration and notifications | 12/13/2022 |

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Business Needs & Metrics

Cost: WeCasa wants to reduce our technology costs to \$0. So any calendar API that requires an upfront cost is not ideal, and will be scored as a 0.

Security: Security concerns in regards to the calendar API include insecure API key generation, accidental key exposures, DDoS attacks, and more (Mehta, 2022). The score in this category will be based on whether the calendar API will provide protection against these concerns.

Frontend Framework Compatibility: The calendar API must work seamlessly with WeCasa's frontend framework, ReactJS. The score in this category will be based on the extensibility of the calendar API's component libraries and tools to support ReactJS.

Views: The API should allow users to alternate between month, day, and weekly views.

Event creation & deletion: The API should allow users to add and remove events from the calendar.

Event Configuration: The API should allow users to title events, add descriptions, create recurring events, assign different colors to events, make an event private/public, add invitees, and update existing events.

Event Notifications: The API should allow users to set a reminder time for an event that will notify invitees at the specified time.

Maximum number of events: This metric is based on how many events the calendar can support loading in a given day, week, month, and year.

Technology Comparison

Scale: 1-1.75 with intervals of 0.25, based on how influential that metric is in our decision making. Higher numbers indicate more importance.

Scores: 0-1 with intervals of 0.2, based on how well they match our desired use case.

Total: Scores for each technology will be summed and multiplied by the metric scale.

| Metrics | Google Calendar API | Calendly | FullCalendar |
|---------|---------------------|----------|--------------|
|---------|---------------------|----------|--------------|

| | | | |
|--|---|--|---|
| Cost - 1.5 | All use of the Google Calendar API is available at no additional cost. Exceeding the quota request limits doesn't incur extra charges and your account is not billed. (Google Developers, 2022) - 1 | GET and POST requests to API endpoints are free through the Basic plan. Any other requests require a paid subscription to Professional, Teams, or Enterprise plans (Calendly Developer, 2022) - 0.6 | Offers free tier with limited functionality and features (Fullcalendar pricing, n.d.) - 0.4 |
| Security - 1.75 | Google APIs use the OAuth 2.0 protocol for authentication and authorization. Google supports common OAuth 2.0 scenarios such as those for web server, client-side, installed, and limited-input device applications. (Google Developers, 2022) - 1 | JSON requests, HTTP methods, authentication, response codes, supports OAuth 2.0 to authenticate requests (Calendly Developer, 2022) - 1 | No known security vulnerabilities belonging to FullCalendar's production dependencies of direct and indirect packages (View Fullcalendar, n.d.). - 1 |
| Frontend Framework Compatibility - 1.75 | RESTful API - 1 | REST-based - 1 | Generates ReactJS virtual DOM nodes to optimize the rendering engine (React component, n.d.) - 1 |
| Views - 1.5 | Supports custom calendar views for each user (Google Developers, 2022) - 1 | Can specify date range for viewing calendar (Calendly Developer) - 0.6 | Unable to view specific dates in timeline view (Fullcalendar pricing, n.d.) - 0.2 |

| | | | |
|--|--|---|--|
| Event creation, edits, & deletion - 1.5 | Supports adding, editing, and deleting events (Google Developers, 2022) - 1 | Supports event cancellation and inviting Users. Does not support creating events and custom event types (Calendly Developer, 2022) - 0.2 | Supports event creation and removal (Addeventsource, n.d.) - 1 |
| Event configurations - 1.5 | Covers 7/7 features - Title, description, color ID, start and end time, attendees email, repeat events, private/public event, reminder time (Google Developers, 2022) - 1 | Covers 5/7 features - Title, description, start and end time, repeat events, Reminder time (Calendly Developer, 2022) - 0.6 | Covers 2/7 features - Title, start and end time (Full Calendar Docs 2022) - 0.2 |
| Event Notifications - 1 | Yes - pop-up and/or by email for a customizable time in advance (Google Developers, 2022) - 1 | Yes - email and/or text 1 or 24 hr in advance (Calendly Developer, 2022) - 0.6 | No (Full Calendar Docs 2022) - 0 |
| Maximum number of events - 1 | 2500 events per page (Google Developer) - 1 | 100 events per page (Calendly Developer, 2022) - 0.2 | Not listed - 0 |
| Total | 11.5 | 7.3 | 6.2 |

Recommendation

Google Calendar API

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