

# DAR Report

## Hubba - Calendar Integration

Version 1.0

Prepared By: Development Hell

Class: CECS 491-04

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Github Repository:

<https://github.com/DevelopmentHellaHell/SeniorProject>

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## **Revision History**

Version	Overview	Date
1.0	Initial DAR report	12/10/2022

## Decision

The following options will be considered as options for the calendar system used within the application for scheduling bookings.

1. **FullCalendar.io version 5.11.3**
  - a. Calendar service provided by FullCalendar and community contributors
2. **tui.calendar version 2.1.3**
  - a. Calendar service provided by TOAST UI
3. **Big Calendar version 1.5.2**
  - a. Calendar service provided by Jason Quense and community contributors

## Analysis

	FullCalendar.io	tui.calendar	Big Calendar
Dependencies	0	4	15
	2	2	1
Size (x 0.5)	1.18 MB	2.64 MB	2.5 MB
	1	0.5	0.5
Pricing/Licensing	Free/MIT	Free/MIT	Free/MIT
	1	1	1
Event Pop-ups (x 1.5)	Unavailable	Available	Unavailable
	1.5	3	1.5
Monthly View Type	Available	Available	Available
	1	1	1
Styling	Full Styling: Parent element, Child element, Font	Full Styling: Parent element, Child element, Font	Partial Styling: Parent element, Font
	2	2	1
<b>TOTAL</b>	8.5	9.5	6

# Recommendation

**Dependencies:** As we are trying to build a reliable stable application, using a calendar library with fewer dependencies is important to our application. Having fewer moving parts and less features which might need updating increases the reliability of our application. In this regard, Full Calendar and tui.calendar beat out Big Calendar with less than half the dependencies.

**Size:** Our system is aiming to be lightweight and responsive, with the calendar system taking up a good portion of the entire application in regards to listings and rental history. As a result, we would prefer to only use 5 MB in total for our calendar system. Although all three of the calendar libraries fall below this criteria, Full Calendar does so by the largest margin. Both tui.calendar and Big Calendar are twice as large as its competitor and closer to the 5 MB limit we've placed on our calendar library.

**Pricing/Licensing:** All three of the options are free as long as their license is included in all distributions of the software. As we do not have funds to provide out of pocket for the application, this is important to us as developers

**Event Pop-ups:** Although it is not required for the functionality of our application, being able to click on an event within the calendar and have the calendar event expand to display details in the calendar is an elegant UI solution. Instead of having the event appear to the side of the displayed calendar, event details can be seen within the calendar itself using the tui.calendar. This allows the user to easily see extra details about the listings within the application such as event location, event address, and host name simply from their calendar view. This streamlines the user experience and reduces the frustration of having to navigate to a separate view or wait for a JS element to appear with the information.

**Monthly View Type:** Our application displays information about rental history and listing availability primarily as a month-to-month application. The bare minimum requirement for view typings for our application is a monthly view. All of the libraries included in our application are able to display events on a monthly view or navigate to another monthly view.

**Styling:** The Big Calendar library does allow for styling of child elements within the calendar such as font or text color. The tui.calendar and Full Calendar solutions allow for full styling of the calendar, with tui.calendar even providing example sets to be downloaded and used with their permission. This leaves the Big Calendar at a loss when discussing styling and themes when matching the website and could cause it to feel out-of-place among differently styled paragraphs or listings.

**Conclusion:** The tui.calendar and FullCalendar.io are both strong choices for a calendar system, but the ability of the tui.calendar to allow event pop-ups gives it an advantage when catering to the overall user experience. As a result, it is our recommendation to proceed with the tui.calendar library.

# References

- Ahn, D. (2022, July 4). Tui.calendar/theme.md at main · NHN/tui.calendar. tui.calendar Theme. Retrieved December 10, 2022, from <https://github.com/nhn/tui.calendar/blob/main/docs/en/apis/theme.md>
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