Calendar System

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NullSpace

Designed with You

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The problem

Lacks Business Context

Generic calendars don’t link events to clients, projects, or internal data, making it hard to manage B2B operations efficiently.

Poor Resource Coordination

Existing tools can’t easily assign locations, groups, or customers to events, causing confusion and extra manual work.

Limited Customization

Most calendars can’t adapt to specific workflows or custom fields needed by B2B companies.

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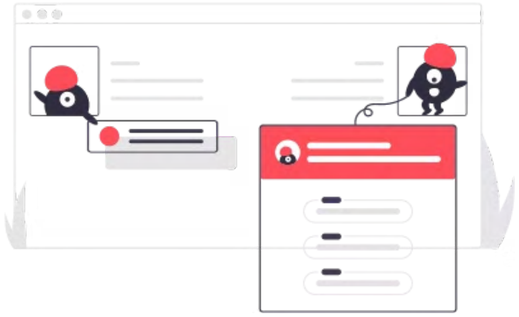
The solution

Business-Integrated Scheduling

Our system links events directly to clients, giving full business context within the calendar.



Smart Resource Assignment

Admins can assign customers, locations, and groups to events, improving coordination and reducing manual tracking.

Customizable Workflow Support

The calendar can be tailored with custom fields and rules to fit Nullspace's specific B2B operations.

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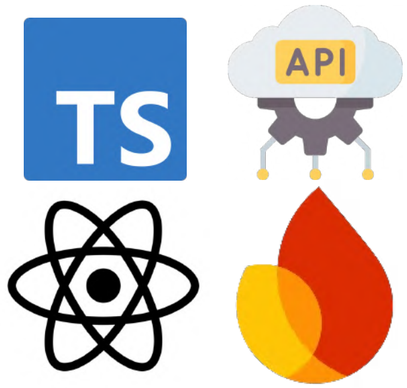
Constraints

Before starting to develop the calendar, we realized that we were constrained by the following:

Existing Tech Stack



Limited Time

The client had too many requirements for a short period of time

Outside scope

Some requirements depended on features outside of the scope that weren't implemented by the client.

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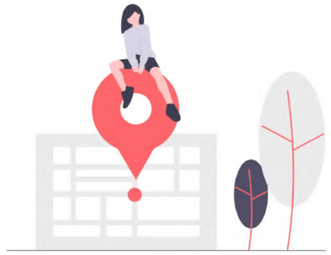
The approach

How we approached to tackle the problem

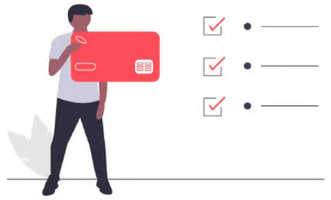


Required Fields

Identified the customizable fields that are needed for the implementation

Database Design

Made a database architecture to handle the data



UI Design

Made a friendly user-interface which is more appealing to the user compared to the legacy calendar system

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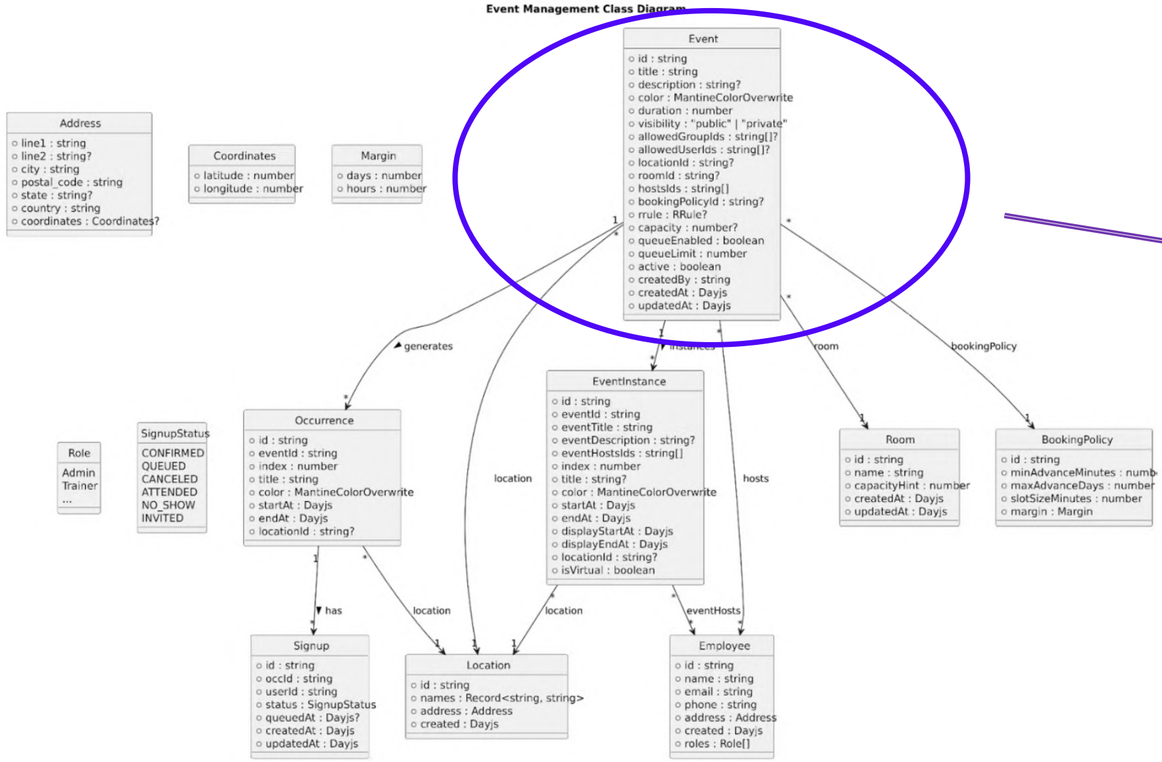
Data design



Event

- id : string
- title : string
- description : string?
- color : MantineColorOverwrite
- duration : number
- visibility : "public" | "private"
- allowedGroupIds : string[]?
- allowedUserIds : string[]?
- locationId : string?
- roomId : string?
- hostsIds : string[]
- bookingPolicyId : string?
- rrule : RRule?
- capacity : number?
- queueEnabled : boolean
- queueLimit : number
- active : boolean
- createdBy : string
- createdAt : Dayjs
- updatedAt : Dayjs

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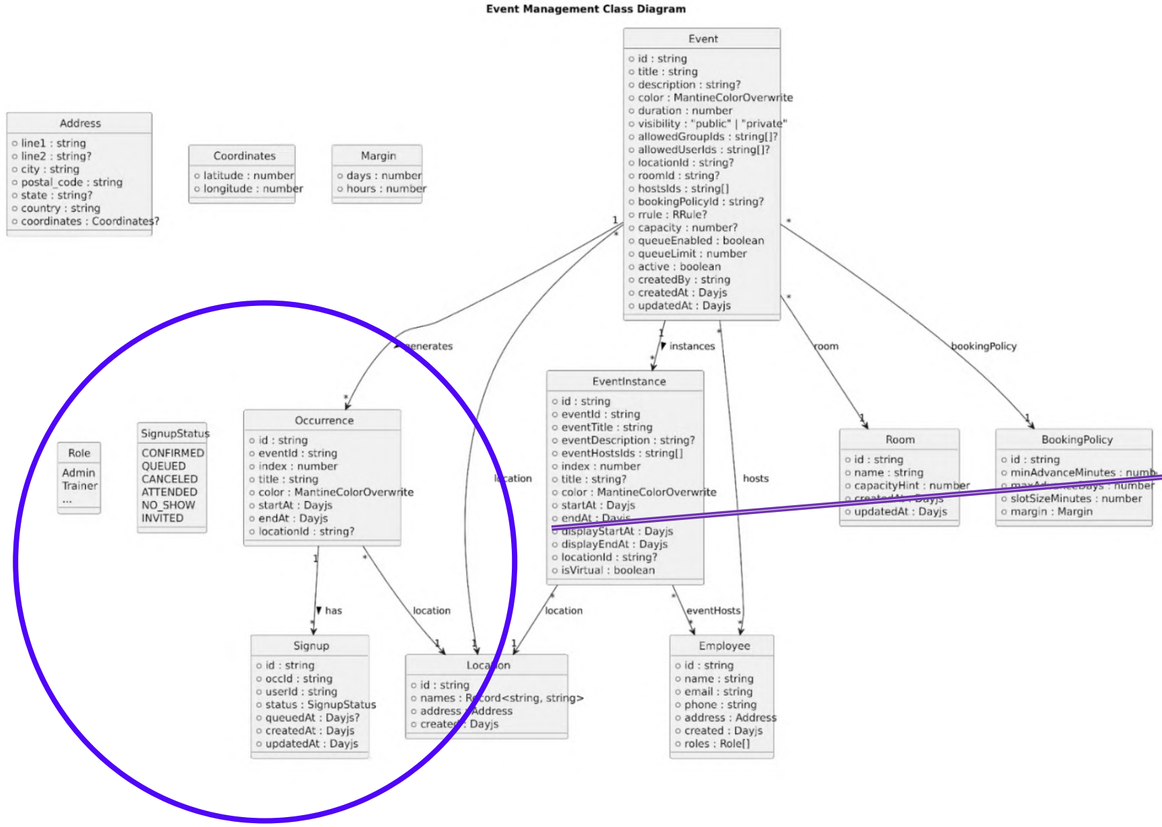
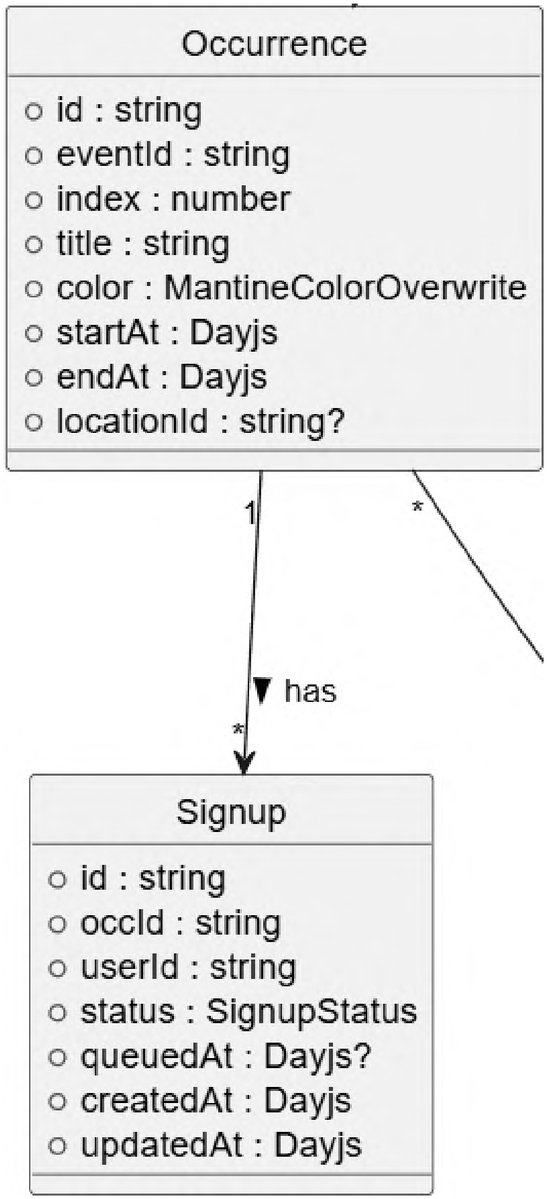
Data design





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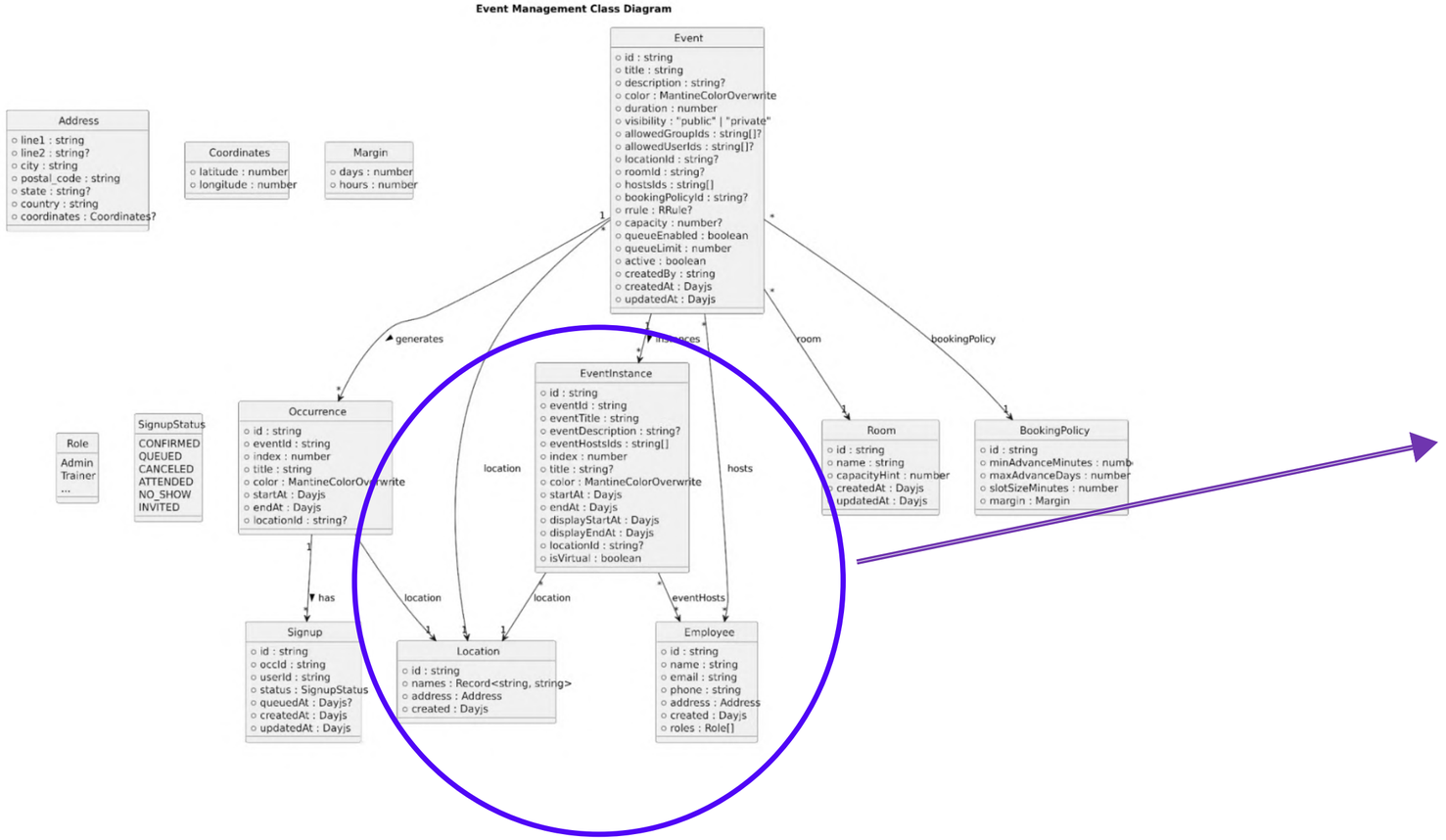
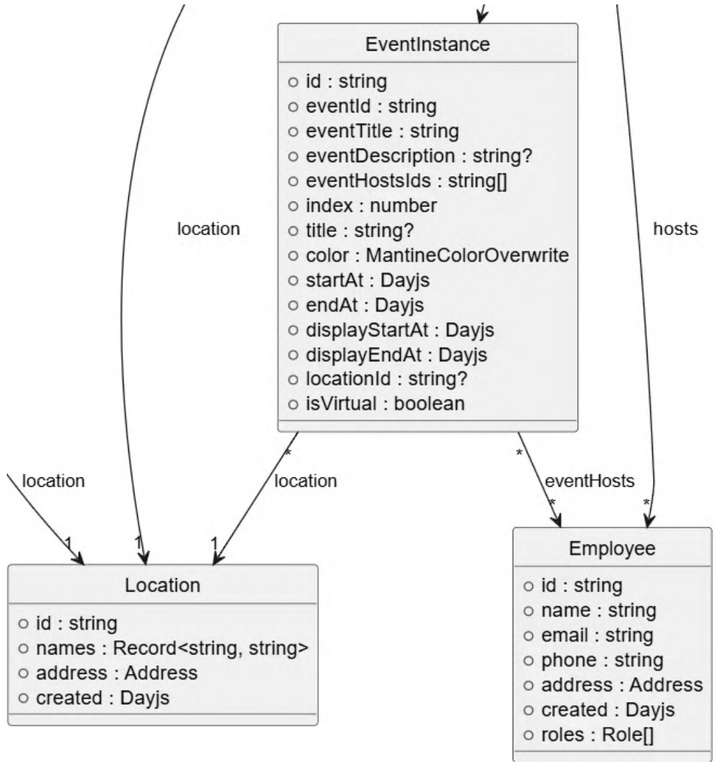
Data design





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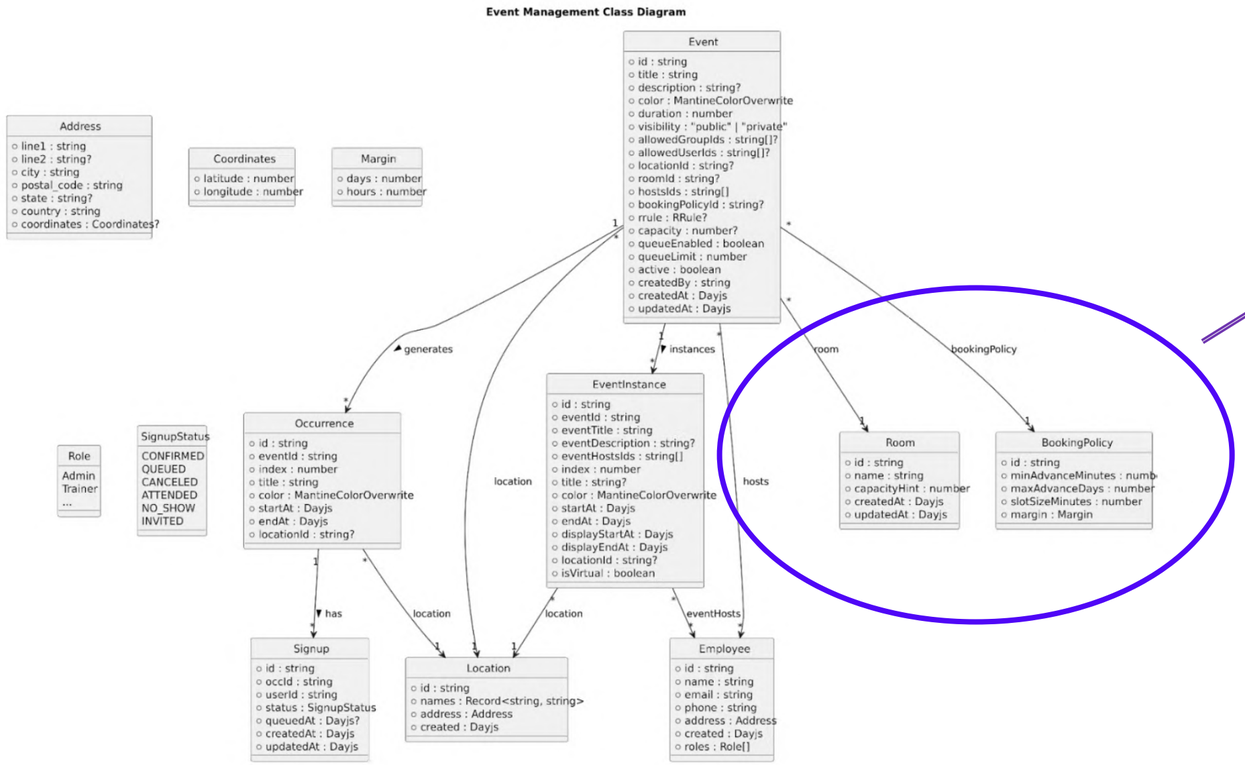
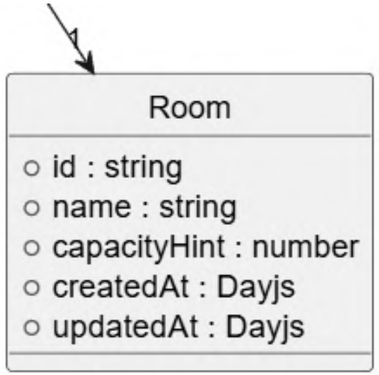
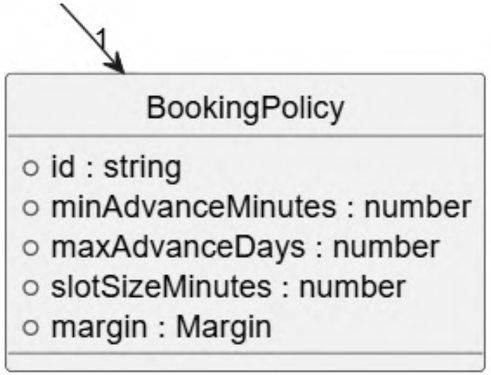
Data design







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Feats achieved

Event Virtualization

Seamless Detail Editing

On-demand Data Fetching

Refined Attendee Management

Queuing System

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Implementation limitations

Daylight Savings

Due to the way events are virtualized, event times are stored as UTC timestamps. Therefore, storing local time wasn't possible.

Relational Data

Because we use a noSQL DB, relational data necessitated multiple redundant fetches and listeners.

Lack of Cloud Functions

We were unable to deploy cloud functions due to complexity. Could've been used for enhanced access control and handling side effects.

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Product Demonstration.

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Questions

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Pitch

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