



vuejs.de 2024

MEET PINIA COLADA, THE DATA FETCHING LAYER FOR PINIA

WHO AM I?

- My name is Elise Patrikainen
- Live in Paris
- Freelance front-end developer (NuxtLabs)
- Co-organiser of the meetup Vue.js Paris



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- => speakers welcome :)

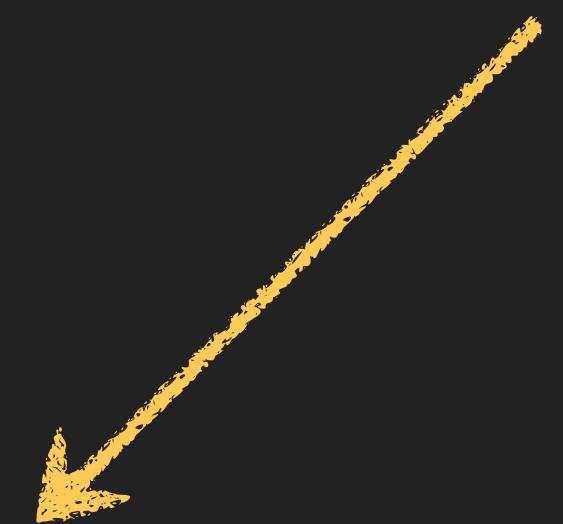


INTRODUCTION

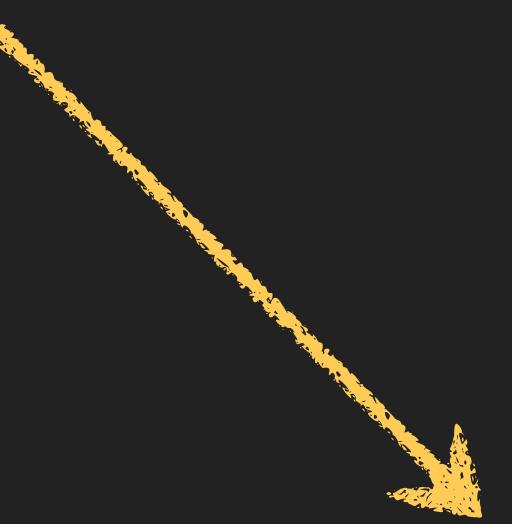
A few words about

global state

global state



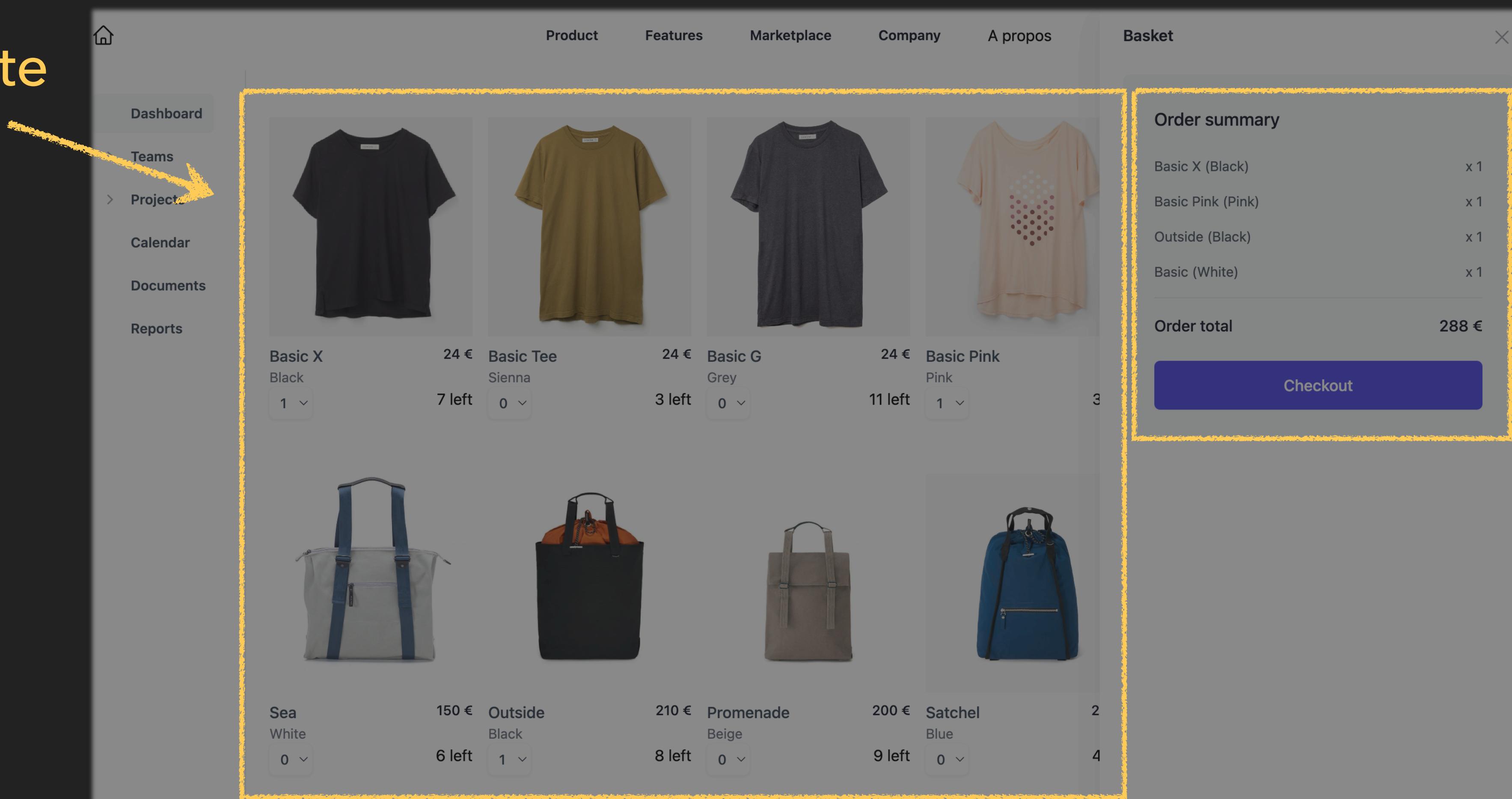
server state



client state



Server state



Client state



These states are not equal !

SERVER STATE

Asynchronous

Shared ownership

CLIENT STATE

Synchronous

Single ownership

SERVER STATE

Asynchronous

=> async states
=> cache

CLIENT STATE

Synchronous

Shared ownership
=> refresh

Single ownership

This can lead to complexities
with common storage patterns.

COMMON STORAGE PATTERNS:

- ▶ In a local scope (components):
 - ✖ no cache
- ▶ In a store:
 - ✖ no refresh



NOT THE ONLY ISSUE...

- **States** related to the fetch (error, loading)?
- Request **deduplications**?
- **When** to refresh the data?
 - On component mount? After a mutation?
 - On window focus? On reconnection?
- **Garbage collecting** the inactive cache?



NOT CONVINCED?

- ▶ Natalia Tepluhina's talk on Vue Query (Amsterdam 2022)



A screenshot of a presentation slide. On the left, there is a video feed of Natalia Tepluhina speaking. On the right, there is a large code editor window displaying the following JavaScript code:

```
1 actions: {
2   async fetchTractor(id) {
3     this.loading = true
4     try {
5       const response = await getTractor(id)
6       const existingTractor = this.tractors.find((t) => t.id === id)
7       if (existingTractor) {
8         const { description, engine, rated_power } = response.data
9         existingTractor.description = description
10        existingTractor.engine = engine
11        existingTractor.rated_power = rated_power
12      } else {
13        this.tractors.push(response.data)
14      }
15    } catch (error) {
16      this.error = error
17    }
18    this.loading = false
19  },
20},
```

The code editor has a "COPY" button in the top right corner. In the top right corner of the slide, there is a circular logo with a stylized orange "V". In the bottom right corner, there is a smaller video feed showing Natalia from a different angle, and the text "Quitter le mode plein écran (f)".

So what can we do ?



We can use a server state
management library !

Server state management library ?



Server state management library ?



Vue Apollo

⚠️ GraphQL only



Tanstack Query

TS/JS

React, Solid, Vue, Svelte, Angular



Pinia Colada

Vue



What is Pinia Colada ?

- project created by **Eduardo San Martin Morote / Posva**
- **data fetching layer** on the top of **Pinia**
=> a set of stores preconfigured for data fetching and management
- 🍍 Pinia needed
- minimal: **3.1 kb** (minified and gzipped)
- ⚠️ not stable yet





2 NOTIONS:

- ▶ Queries: **fetch** the data
- ▶ Mutations: **mutate** the data



2 NOTIONS:

- ▶ Queries:

```
const { data, isPending, error } = useQuery({  
  key: ['contacts'],  
  query: () => fetch('/contacts'),  
  staleTime: 15000,  
})
```



2 NOTIONS:

- ▶ Queries: **Declarative**
- ▶ Mutations: **Imperative**

```
const { mutate, data, error } = useMutation({  
  mutation: ()=> fetch('/contacts', { method: 'PATCH' }),  
})
```

Demo

Data loaders



What are data loaders?

- RFC and project created by **Eduardo San Martin Morote / Posva**
- Available in the **Unplugin Vue Router**
- designed to solve **Suspense limitations**
 - *deduplications of requests*
 - *local fetching and error states*
 - *cascading loading states*
 - *No update if params change*
 - *Preloading*





What are data loaders?

The screenshot shows a video player interface. At the top, there are several logos: ZEN, vFAIRS, StackBlitz, Mastering Nuxt, Mastering Pinia, and SE. The main video frame displays a presentation slide with the FN logo and the title "Elevating Data Fetching in Vue". Below the slide, the URL "frontendnation.com" is visible. To the right of the video frame, there is a portrait of a man with long hair and a mustache, identified as Eduardo San Martin Morote. Below his photo, his name is listed along with his titles: "Creator of Pinia and Vue Router" and "Mastering Pinia instructor". The video player also shows a progress bar at 0:05 / 20:37 and various control icons like play, volume, and settings.

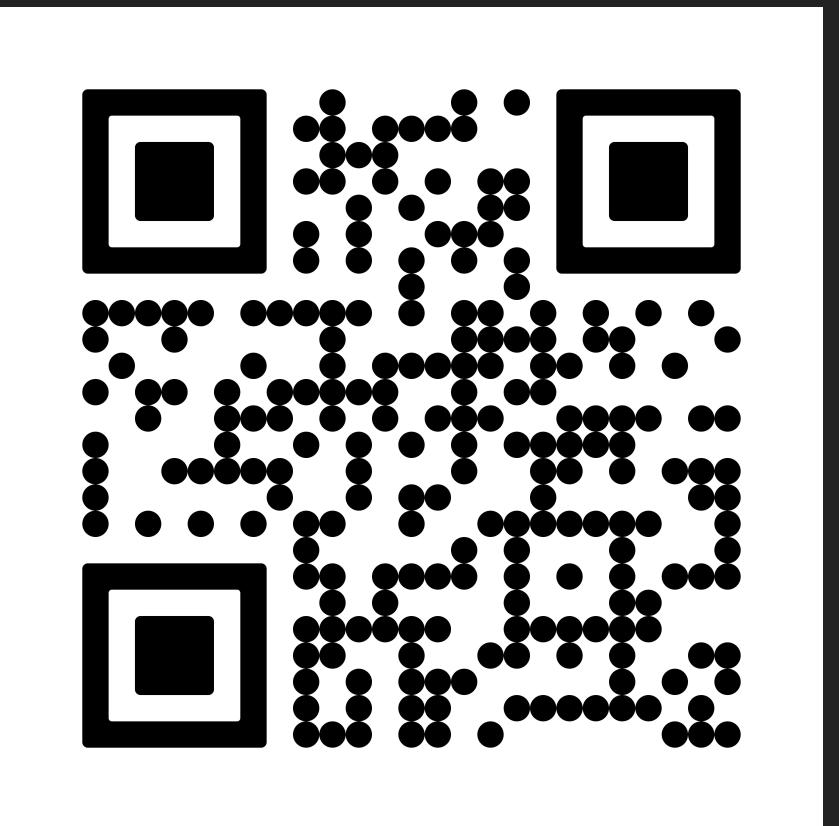


How does it relate to Pinia Colada?

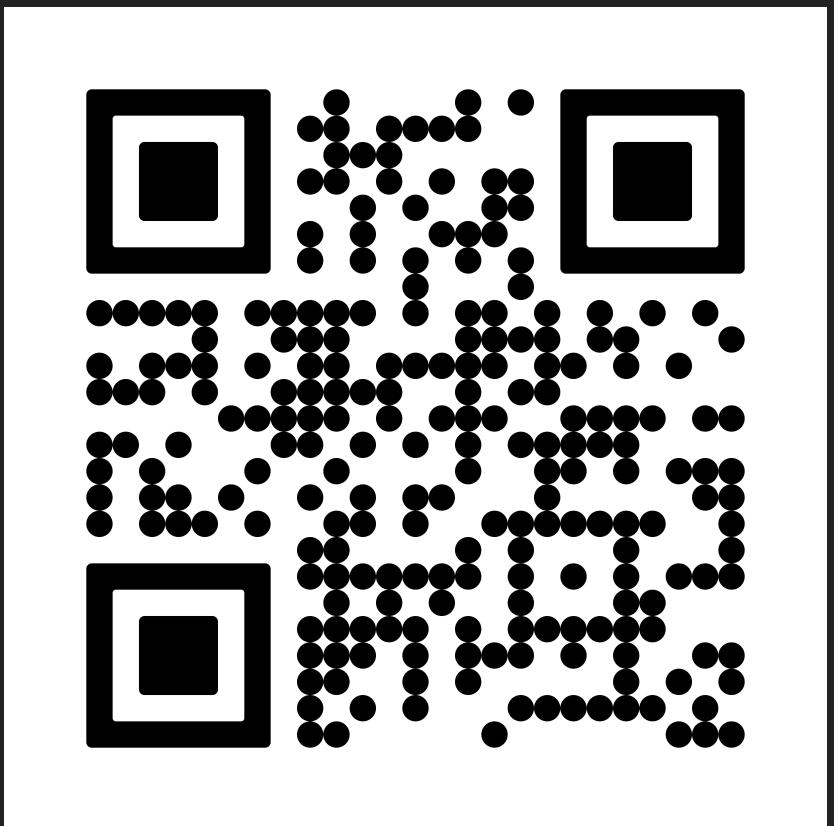
=> **designed** to work with data loaders

Demo

DEMO



SLIDES



- ▶ Demo: <https://github.com/ElisePatrikainen/demo-vuejs-amsterdam-2024>
- ▶ Slides: <https://github.com/ElisePatrikainen/slides-vuejs-amsterdam-2024>

THANK YOU