

From Plain to Framework

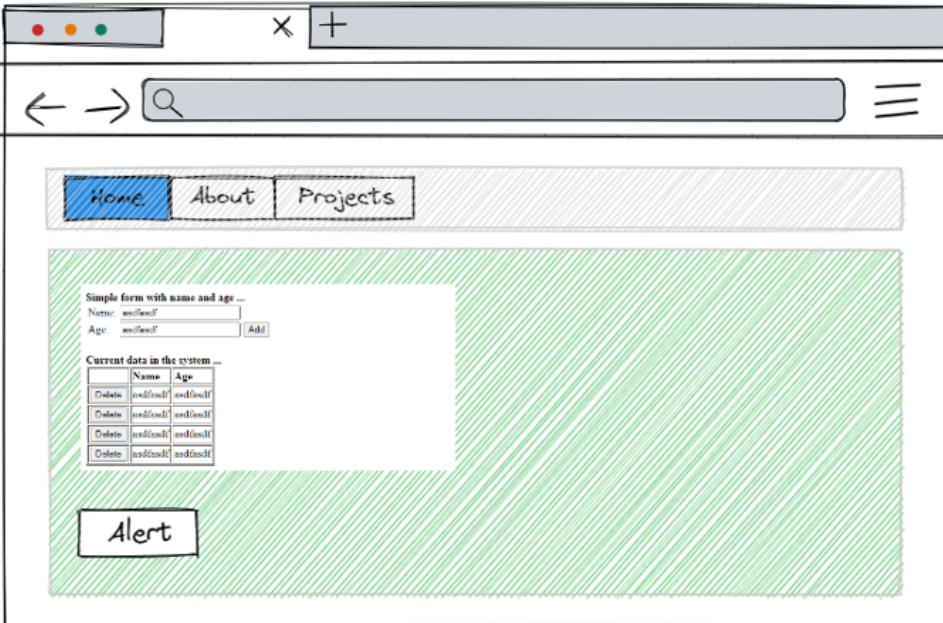
BRIDGE THE GAP BETWEEN PLAIN IMPLEMENTATION
AND FRAMEWORK BASED DEVELOPMENT



Agenda

Our focus for today

- Recap
- Bridge between plain implementation and frameworks
- Discussion about tech stack
- Continue working on mockup



Recap

What did we do last time?

-  HTML - bones of our website
-  CSS - because style matters
-  JS - would be boring without interactivity
-  Web Page - building our first webpage, learn basics of interacting with elements
-  Mockup - basic functionality for MVP





Plain Impl. - Problems



- Hard to name classes and stick to company naming convention
- Don't break existing things by adding new styles
- Keep CSS file small and clean
- Use of `!important`



- Manage global state
- Don't block thread
- Make app reactive
- Keep it fast





Plain Impl. - Do not reinvent the wheel

Goal

- Reuse working things
- Don't waste time on basic building blocks
- You do not have expertise for everything





Frameworks to the rescue

- Comes with best practices
- Given structure (faster onboarding of new team members)
- Things implemented the right way (no need for detailed expertise)
- Faster time to market (TTM)
- Easy customisation
- Tech:
 - Frontend layers (layouts, pages, components)
 - Router (Frontend, Backend)
 - State management
 - Error handling



Frameworks - Common Structures of Website

The screenshot shows the Nuxt Modules page. At the top, there's a navigation bar with tabs: 'Modules' (highlighted), 'All', 'Official', 'Community', and 'Third Party'. Below the navigation is a search bar with placeholder text 'Search an integration' and a dropdown menu set to '3.x'. To the right of the search bar is a 'Downloads' button with a downward arrow. The main content area displays several module cards:

- eslint**: ESLint module for Nuxt.js. Rating: 80, Downloads: 948k.
- tailwindcss**: Add Tailwind CSS to your Nuxt application in seconds with PurgeCSS. Rating: 1k, Downloads: 467k.
- i18n**: i18n features for your Nuxt project so you can easily add internationalization. Rating: 1k, Downloads: 398k.
- pinia**: The Vue Store that you will enjoy using.
- stylelint**: Stylelint module for Nuxt.js. A mighty, modern linter that helps you avoid...
- device**: Device detection module for Nuxt.js.

On the left side, there's a sidebar with 'Categories' listed:

- Analytics
- CMS
- CSS
- Database
- Devtools
- Ecommerce
- Extensions
- Fonts
- Images
- Libraries
- Monitoring

From Plain to Framework

✨ Frameworks - Views

Layouts



From Plain to Framework

✨ Frameworks - Views

Pages



From Plain to Framework

✨ Frameworks - Views

Components



From Plain to Framework



✨ Frameworks - Other benefits

- Project structure
- Application lifecycle
- Plugins / Modules
- Routing
- Error handling
- State handling



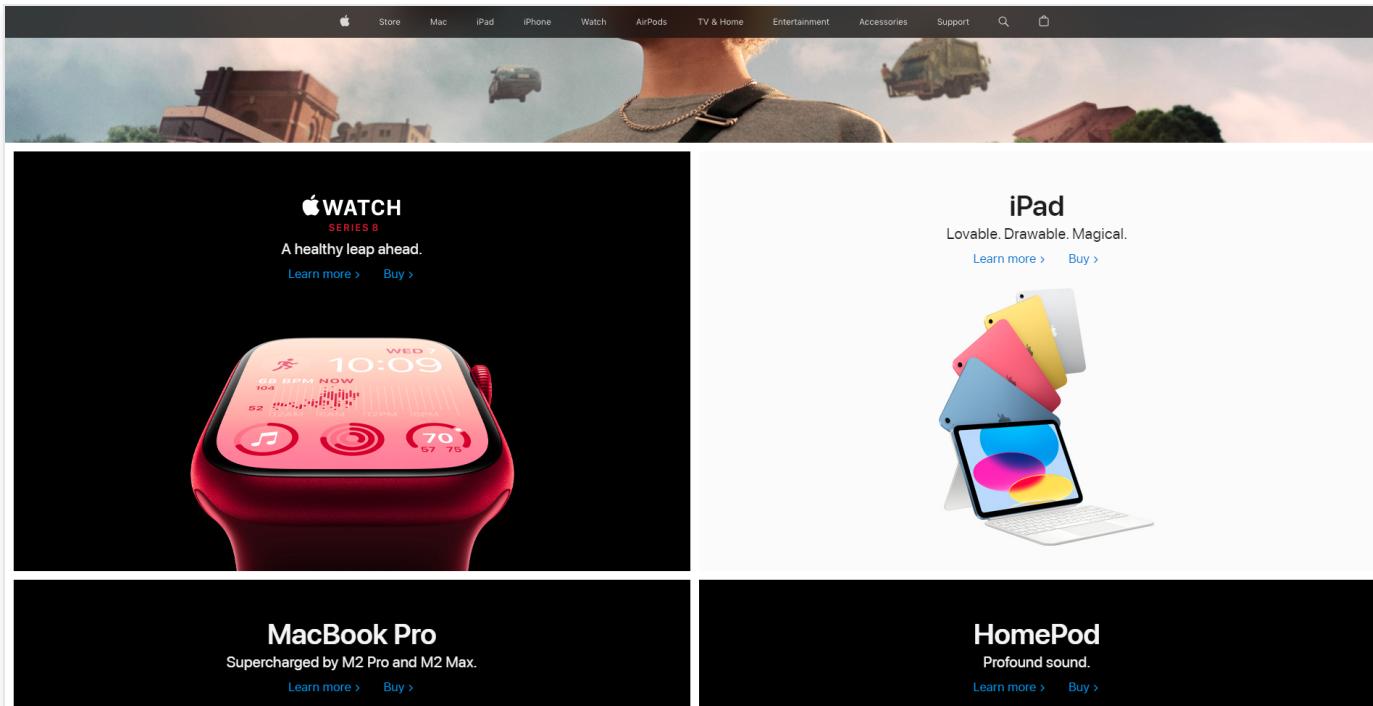
Lab - Find the Components

Amazon

The screenshot shows the homepage of Amazon.com. At the top, there's a search bar with "Suche Amazon" and a magnifying glass icon. To the right of the search bar are links for "DE", "Hallo, anmelden", "Konto und Listen", "Warenrücksendungen und Bestellungen", and an "Einkaufswagen" (Shopping Cart) icon with a "0". Below the header, there's a navigation bar with links for "Alle", "Angebote des Tages", "Kundenservice", "Wunschlisten", "Geschenkkarten", and "Verkaufen bei Amazon". The main banner features a large airplane flying over a map with location pins, and the text "Willkommen bei Amazon.com". Below the banner, there are several promotional sections: "Zum Einkaufen bitte anmelden" (Log in to shop), "Gesundheit & Körperpflege" (Health & Personal Care) with a grid of products, "Click here to shop in English" (Change your language preference), "Gaming-Zubehör" (Gaming accessories) with categories for Headset, Tastaturen, Computermäuse, and Stühle, and a section for "Hier die Bestseller in Büchern für Sie" (Bestsellers in Books) featuring book covers like "UNSTOPPABLE ENTREPRENEUR", "DR. SHEFALI THE PARENTING", and "EXTREME OWNERSHIP".

Lab - Find the Components

Apple



The screenshot shows the Apple website's main page with a banner at the top featuring a man's back and a futuristic cityscape. Below the banner are four product cards:

- WATCH SERIES 8**
A healthy leap ahead.
[Learn more >](#) [Buy >](#)

- iPad**
Lovable. Drawable. Magical.
[Learn more >](#) [Buy >](#)

- MacBook Pro**
Supercharged by M2 Pro and M2 Max.
[Learn more >](#) [Buy >](#)

- HomePod**
Profound sound.
[Learn more >](#) [Buy >](#)


Lab - Find the Components

Figma

The screenshot shows the Figma web interface. At the top, there's a navigation bar with a user profile (Tobias Blum), a search bar, and community links. A prominent yellow banner at the top center states, "You've reached the limits of our Starter plan. On the Starter plan, you're limited to 3 Figma files. For unlimited files, and a whole lot more, check out our paid plans." An "Upgrade now" button is visible. Below the banner, the project title "Thesis OpenSource Leitsystem" is displayed, along with a note that "Members of Private can edit this project".

The left sidebar contains sections for "Recents", "Drafts", a verification message ("You're verified for Figma Education! Ready to upgrade a team for free? Choose team"), "Favorite files" (with a note to star files), and "Teams" (listing "Private" and "Deleproject").

The main content area shows a grid of files. The first row includes a "New design file" (Design and prototype), a "New FigJam file" (Whiteboard and diagram), and an "Import file" (Bring in files from other tools). The second row displays four files: "Animierte Grafiken" (Edited 2 months ago), "Dokumentation" (Edited 1 year ago), "Layout Präsentation" (Edited 2 years ago), and "Logo" (Edited 2 years ago). A third file, "Iconset", is partially visible at the bottom.

On the right side, there are sections for "About" (with a "Share" button), "Recent contributors" (listing Tobias Blum), "Starter team overview" (showing 6 of 3 Figma files used and 0 of 3 FigJam files used), and a call-to-action "Upgrade your team for unlimited files, projects, and customizable team libraries".

Lab - Find the Components

FlowChief

FlowChief | DASHBOARD

Bearbeiten

PH-MESSUNG
STANDORT: REAKTIONSBECKEN
Paste your documents in the visual editor on the left or your HTML code in the source editor on the right. You can also upload files here. Edit any of the two areas and see the other changing in real time.

RLS TS Gehalt g/l

Faulschlamm

Biologie

Biologie 1/2 TS Gehalt g/l

Faulschlamm TS Gehalt g/l

Seite < 2h Werte >
Aktualisieren < 19. März 2018 > Aktuelle Woche Tag Woche Monat Jahr Frei TAB-Richtung: ⬆ ⬇ ⬈ ⬉

BEZEICHNUNG	EINHEIT	19 HO	20 DI	21 MI	22 DO	23 FR	24 SA	25 SO	EINHEIT	BEZEICHNUNG
Zeitpunkt der Messung		00:00	00:00	00:00	00:00	00:00	00:00	00:00		Zeitpunkt der Messung
2h-MP Kläranlage Zulauf Nges.	mg/l								mg/l	2h-MP Kläranlage Zulauf Nges.
2h-MP Kläranlage Zulauf P-Gesamt	mg/l								mg/l	2h-MP Kläranlage Zulauf P-Gesamt
2h-MP Kläranlage Zulauf PO4 - P	mg/l								mg/l	2h-MP Kläranlage Zulauf PO4 - P
Wetterschüssel	(1-7)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1-7)	Wetterschüssel
BEZEICHNUNG	EINHEIT	19 HO	20 DI	21 MI	22 DO	23 FR	24 SA	25 SO	EINHEIT	BEZEICHNUNG

Änderungen speichern Zurücksetzen

(1) Wetterschüssel:

Preparing for Discussion

Requirement ideas for tech stack

- TypeScript support
- Rich ecosystem
- Large community
- Performance
- Error handling, data fetching, state handling, ...
- Easy to start with / learn (good DX)
- ? Other things



Discussion

Tech stack

Some Ideas

FRAMEWORK

Nuxt (Fullstack Framework)

UI LIBS

TailwindUI - Premade components and pages

NaiveUI - Lot of functional controls

shadcn/ui - Modern theme

LAYOUT IDEAS

go-view - Report editor

Working on Mockup

Basic component structuring

