

From Plain to Framework

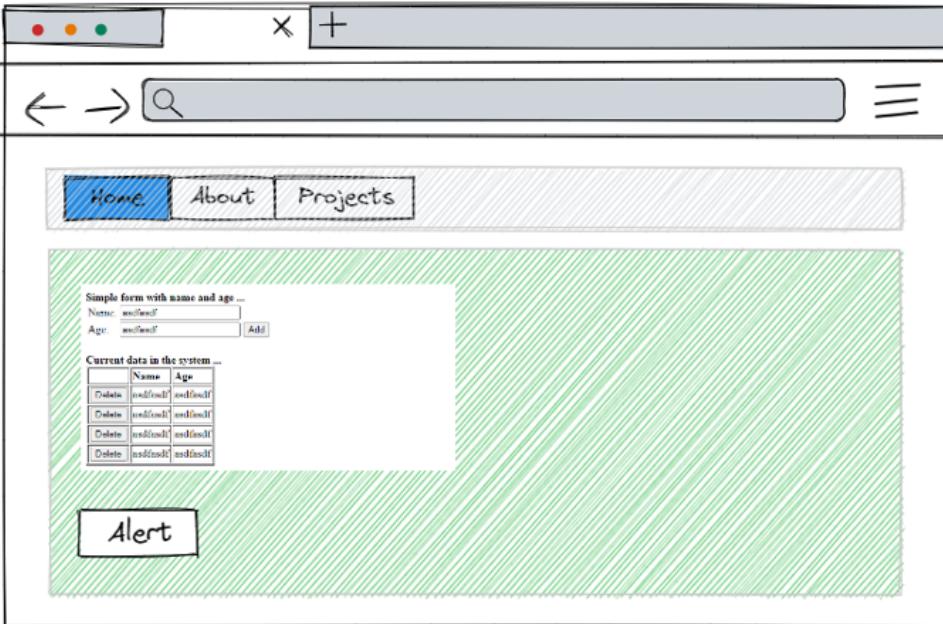
BRIDGE THE GAP BETWEEN PLAIN IMPLEMENTATION
AND FRAMEWORK BASED DEVELOPMENT



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

Modules

All Official Community Third Party

Discover our list of modules to supercharge your Nuxt project.
Created by the Nuxt team and community.



3.x Search an integration Downloads

Categories

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

 eslint ESLint module for Nuxt.js 80 948k 5	 tailwindcss Add Tailwind CSS to your Nuxt application in seconds with PurgeCSS... 1k 467k 30	 i18n i18n features for your Nuxt project so you can easily add internationalization. 1k 398k 30
 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

From Plain to Framework



Frameworks - Common Structures of Website

Modules

All Official Community Third Party

Modules

Discover our list of modules to supercharge your Nuxt project.
Created by the Nuxt team and community.



3.x Search an integration Downloads

Categories

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

 eslint ESLint module for Nuxt.js 80 948k 5	 tailwindcss Add Tailwind CSS to your Nuxt application in seconds with PurgeCSS... 1k 467k 30	 i18n I18n features for your Nuxt project so you can easily add internationalization. 1k 398k 30
 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



Frameworks - Common Structures of Website

The screenshot shows the Nuxt.js Modules page. At the top, there are tabs for All, Official, Community, and Third Party. Below the tabs is a search bar and a dropdown for version (3.x). A decorative graphic of a hexagon with a hand icon is centered above the module cards. The page is titled "Modules" and includes a sub-instruction: "Discover our list of modules to supercharge your Nuxt project. Created by the Nuxt team and community." On the left, a sidebar lists categories: Analytics, CMS, CSS, Database, Devtools, Ecommerce, Extensions, Fonts, Images, Libraries, and Monitoring. The main content area displays six 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.



Frameworks - Common Structures of Website

Modules

All Official Community Third Party

Discover our list of modules to supercharge your Nuxt project.
Created by the Nuxt team and community.



3.x

Search an integration

Categories

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

 eslint ESLint module for Nuxt.js 80 948k 5	 tailwindcss Add Tailwind CSS to your Nuxt application in seconds with PurgeCSS... 1k 467k 30	 i18n I18n features for your Nuxt project so you can easily add internationalization. 1k 398k 30
 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



Frameworks - Common Structures of Website

Modules

All Official Community Third Party

Discover our list of modules to supercharge your Nuxt project.
Created by the Nuxt team and community.



3.x Search an integration Downloads

Categories

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

 eslint ESLint module for Nuxt.js 80 948k 5	 tailwindcss Add Tailwind CSS to your Nuxt application in seconds with PurgeCSS... 1k 467k 30	 i18n I18n features for your Nuxt project so you can easily add internationalization. 1k 398k 30
 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

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 zero. Below the header, there's a navigation bar with links for "Alle", "Angebote des Tages", "Kundenservice", "Wunschlisten", "Geschenkkarten", and "Verkaufen bei Amazon". The main content area features a large banner with a plane flying over a map and the text "Willkommen bei Amazon.com". Below this, there are several promotional sections: one for "Zum Einkaufen bitte anmelden" (Login to shop) with a "Sichere Anmeldung" button; another for "Gesundheit & Körperpflege" (Health & Personal Care) showing various products like a water bottle, toothbrush, and razors; a section for "Click here to shop in English" with a colorful illustration of a keyboard and headphones; and a section for "Gaming-Zubehör" (Gaming accessories) featuring a headset, keyboard, mouse, and chair. At the bottom, there's a section titled "Hier die Bestseller in Büchern für Sie" (Here are the bestsellers in books for you) displaying book covers for titles 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 in a grey shirt looking at a floating truck. 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?", with a "Choose team" button), "Favorite files" (with a note to hover over files and click stars), and "Teams" (listing "Private" and "Deleproject").

The main 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 "Add a description" 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

Endress+Hauser  Operating Alerting Reports Configuration

Plantexplorer Scheduler User Administration Message Templates Configuration PV Groups System Settings System Log

Search (min. 3 chars) Search in list 17 New Variable view

Type	Tag	Plant	Signal	Value	Unit	Status	Timestamp	ID	Data Local Time	Timestamp UTC	Path	OPC-Server	OPC Item ID
EHSC-MEX.	EH_HYDRATE_TEMPLATE_UTR1491.ClientTaxNumber	Conagua	Value			Initializing	10:39:10 AM	25696	3:39:10 AM	9:39:10 AM	EH / E+H Mexico / HYDRATE_TEMPLATE / UTR1491	PAS EHMX	/1:Endress+Hauser/1:EHMX/1:UTR53H_EHMX, UTR1491.ClientTaxNumber
EHSC-MEX.	EH_HYDRATE_TEMPLATE_UTR1491.CommunicationId	Conagua	Value			Initializing	10:39:10 AM	25697	3:39:10 AM	9:39:10 AM	EH / E+H Mexico / HYDRATE_TEMPLATE / UTR1491	PAS EHMX	/1:Endress+Hauser/1:EHMX/1:UTR53H_EHMX, UTR1491.CommunicationId
EHSC-MEX.	EH_HYDRATE_TEMPLATE_UTR1491.ConaguaFileName	Conagua	Value			Initializing	10:39:10 AM	25698	3:39:10 AM	9:39:10 AM	EH / E+H Mexico / HYDRATE_TEMPLATE / UTR1491	PAS EHMX	/1:Endress+Hauser/1:EHMX/1:UTR53H_EHMX, UTR1491.ConaguaFileName
EHSC-MEX.	EH_HYDRATE_TEMPLATE_UTR1491.ConaguaTotalizer	Conagua	Value	m³		Initializing	10:39:11 AM	25699	3:39:11 AM	9:39:11 AM	EH / E+H Mexico / HYDRATE_TEMPLATE / UTR1491	PAS EHMX	/1:Endress+Hauser/1:EHMX/1:UTR53H_EHMX, UTR1491.ConaguaTotalizer
EHSC-MEX.	EH_HYDRATE_TEMPLATE_UTR1491.DailyTotalizer		0.00	/h		Sensor error	10:39:11 AM	03/15/2023 10:39:11 AM		9:39:11 AM	EH / E+H Mexico / HYDRATE_TEMPLATE / UTR1491	FlowChief, OPCCalculator	DBSUM([EHSC-MEX.HYDRATE_TEMPLATE_UTR1491.Totalizer],raw,day-5)
EHSC-MEX.	EH_HYDRATE_TEMPLATE_UTR1491.DailyTotalizer_AC		0.00	/h		Sensor error	10:49:28 AM	27372	3:49:28 AM	9:49:28 AM	EH / E+H Mexico / HYDRATE_TEMPLATE / UTR1491	FlowChief, OPCCalculator	DBSUM([EHSC-MEX.HYDRATE_TEMPLATE_UTR1491.Totalizer],raw,day0)
EHSC-MEX.	EH_HYDRATE_TEMPLATE_UTR1491.FlowmeterComError		Flowmeter	Value		Initializing	10:39:10 AM	25701	3:39:10 AM	9:39:10 AM	EH / E+H Mexico / HYDRATE_TEMPLATE / UTR1491	PAS EHMX	/1:Endress+Hauser/1:EHMX/1:UTR53H_EHMX, UTR1491.FlowmeterComError
EHSC-MEX.	EH_HYDRATE_TEMPLATE_UTR1491.FlowmeterDiagNumber		Flowmeter	Value		Initializing	10:39:11 AM	27345	3:39:11 AM	9:39:11 AM	EH / E+H Mexico / HYDRATE_TEMPLATE / UTR1491	PAS EHMX	/1:Endress+Hauser/1:EHMX/1:UTR53H_EHMX, UTR1491.FlowmeterDiagNumber
EHSC-MEX.	EH_HYDRATE_TEMPLATE_UTR1491.FlowmeterSerialNumber		Flowmeter	Value		Initializing	10:39:10 AM	25702	3:39:10 AM	9:39:10 AM	EH / E+H Mexico / HYDRATE_TEMPLATE / UTR1491	PAS EHMX	/1:Endress+Hauser/1:EHMX/1:UTR53H_EHMX, UTR1491.FlowmeterSerialNumber
EHSC-MEX.	EH_HYDRATE_TEMPLATE_UTR1491.FlowmeterStatus		Flowmeter	Value		Initializing	10:39:10 AM	25703	3:39:10 AM	9:39:10 AM	EH / E+H Mexico / HYDRATE_TEMPLATE / UTR1491	PAS EHMX	/1:Endress+Hauser/1:EHMX/1:UTR53H_EHMX, UTR1491.FlowmeterStatus
EHSC-MEX.	EH_HYDRATE_TEMPLATE_UTR1491.FlowmeterStatusSignal		Flowmeter	Value		Initializing	10:39:11 AM	27346	3:39:11 AM	9:39:11 AM	EH / E+H Mexico / HYDRATE_TEMPLATE / UTR1491	PAS EHMX	/1:Endress+Hauser/1:EHMX/1:UTR53H_EHMX, UTR1491.FlowmeterStatusSignal
EHSC-MEX.	EH_HYDRATE_TEMPLATE_UTR1491.UTR		UTR	Value		Initializing	10:39:11 AM	25704	3:39:11 AM	9:39:11 AM	EH / E+H Mexico / HYDRATE_TEMPLATE / UTR1491	PAS EHMX	/1:Endress+Hauser/1:EHMX/1:UTR53H_EHMX, UTR1491.UTR

Include subtrees

- EH
 - E+H Australia
 - E+H Austria
 - E+H Canada
 - E+H Chile
 - E+H Colombia
 - E+H Demo
 - E+H Deutschland
 - E+H Digital Solution
 - E+H Flotec
 - E+H India
 - E+H Indonesia
 - E+H International
 - E+H Iraq
 - E+H Italy
 - E+H Malaysia
 - E+H Mexico
 - ALEN DEL NORTE
 - Banner
 - DEON TEMPLATE
 - HYDRATE TEMPLATE
 - UTR1001
 - UTR1491
 - UTR2000
 - Nation800
 - NMIX179 TEMPLATE
 - Policies
 - Puebla
 - Scribe
 - Template
 - TEST

From Plain to Framework

Preparing for Discussion

Requirement ideas for tech stack

- TypeScript support
- Rich ecosystem
- Some o
- Error handling, data fetching, state handling, ...
- Easy to start with (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



Working on Mockup

Basic component structuring

