

# Vite

## Gogoro Software Team

Jimmy Liao & Stanley Huang 2021

# Let's Go Big!

Gogoro projects are getting bigger and bigger

**As we start to build  
more and more  
ambitious app...**



# Slow Server Start

- Dependencies
  - > 100 production dependencies in Gogoro MyAccount
- Source code
  - > 10,000 lines code in Gogoro MyAccount



# Slow Updates

- Hot Module Replacement (HMR)
- The update speed will degrade linearly with the size of the app

# Vite

Vite is a build tool that aims to provide a faster and leaner DX for modern web projects.

# Vite

- French word for "quick", pronounced /vit/, like "veet"
- Vite Author: Evan You (Vue.js Author)
- Vite is an open source project and MIT Licensed



# Supported template presets

- vanilla
- vue
- react
- preact
- svelte
- lit
- and TypeScript

# Getting Started

# Getting Started

- Vite requires Node.js version  $\geq 12.0.0$
- `npm init vite@latest`
- `cd vite-project`
- `npm install`
- `npm run dev`

# How Vite is so fast?

# Fast Server Start

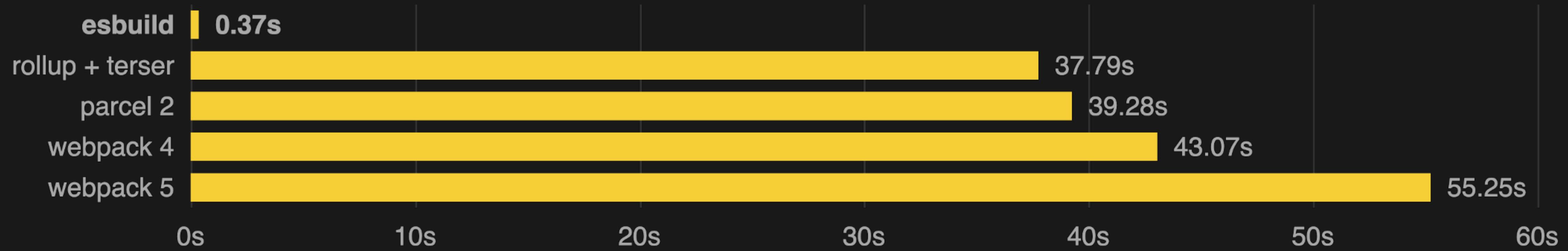
- Dependencies
  - esbuild
  - Dependency Pre-Bundling

# Pre-Bundling

- Dependencies
  - esbuild
  - Dependency Pre-Bundling

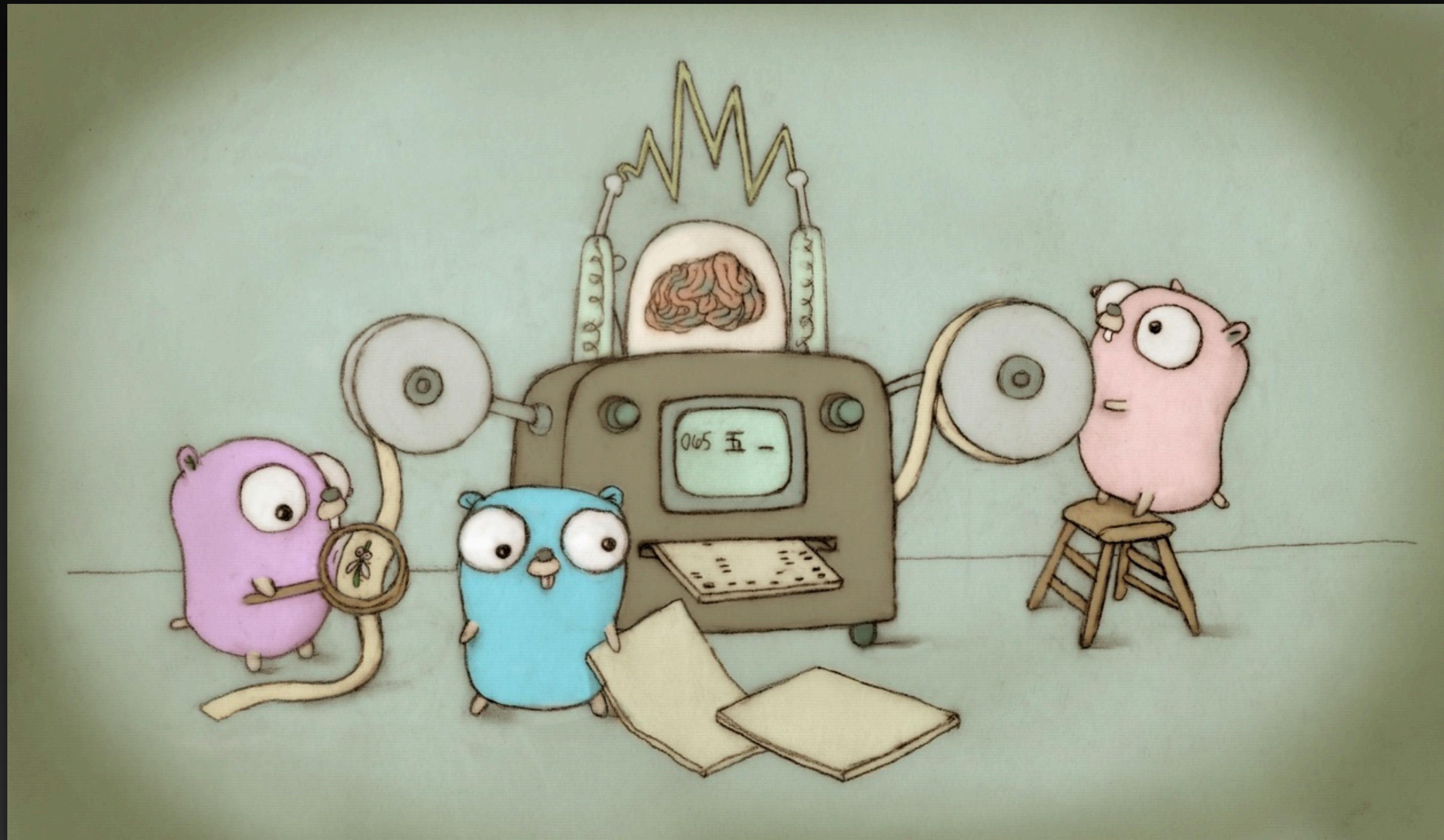


# esbuild



*Above: the time to do a production bundle of 10 copies of the [three.js](#) library from scratch using default settings, including minification and source maps.*

# » esbuild

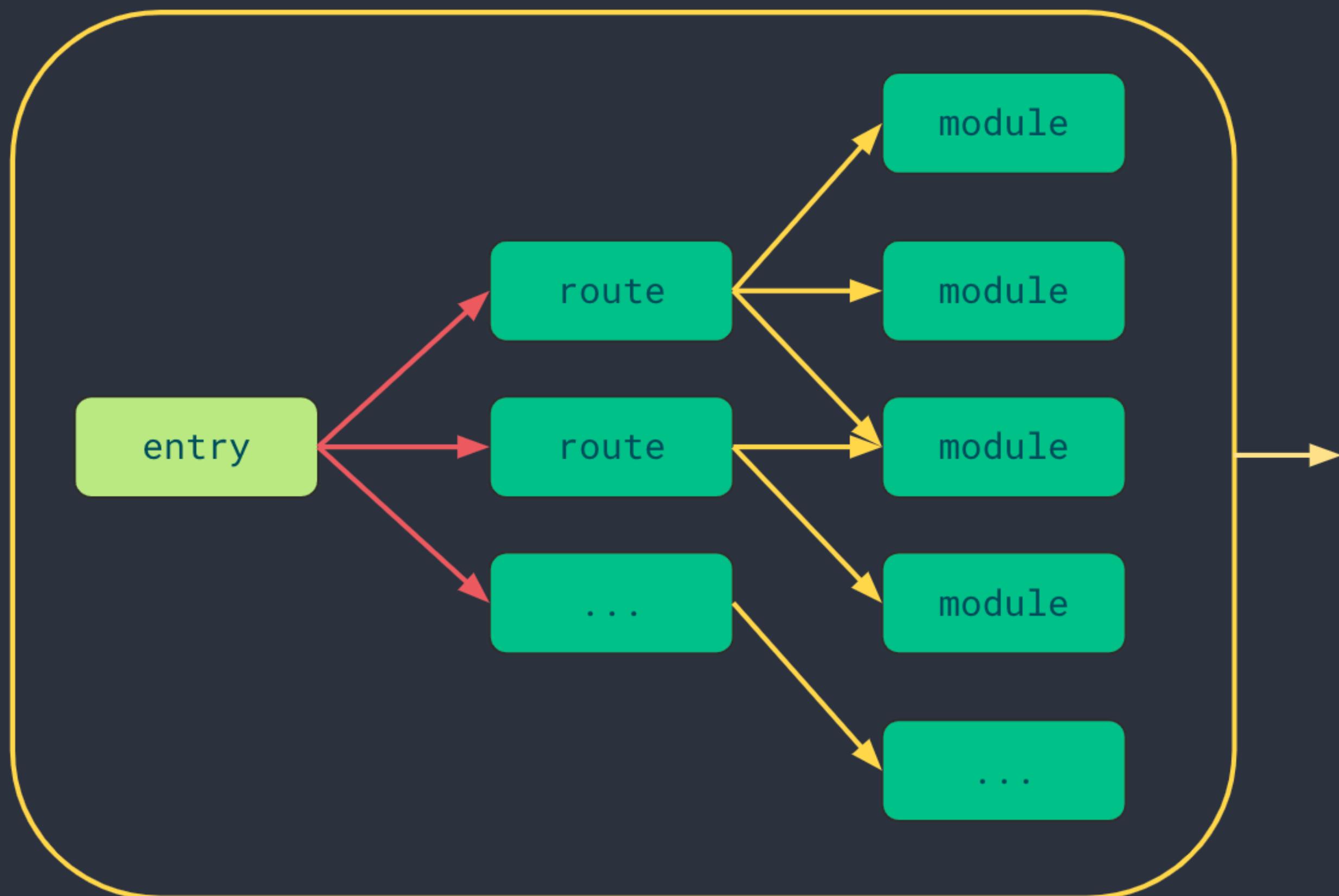


# Fast Update

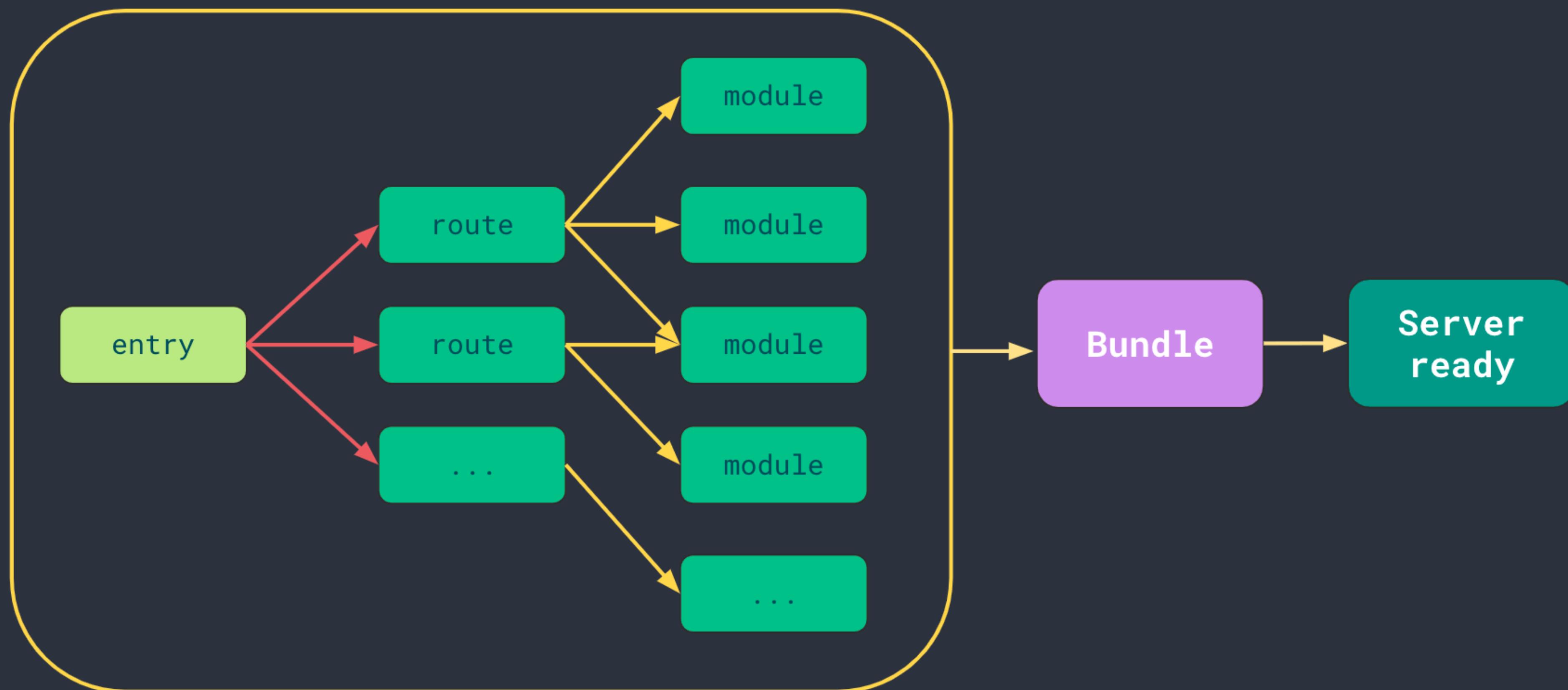
- Source code
  - Native ESM (import, export)
  - No bundle process
  - Leverages HTTP headers to speed up

# Fast Server Start + Fast Update

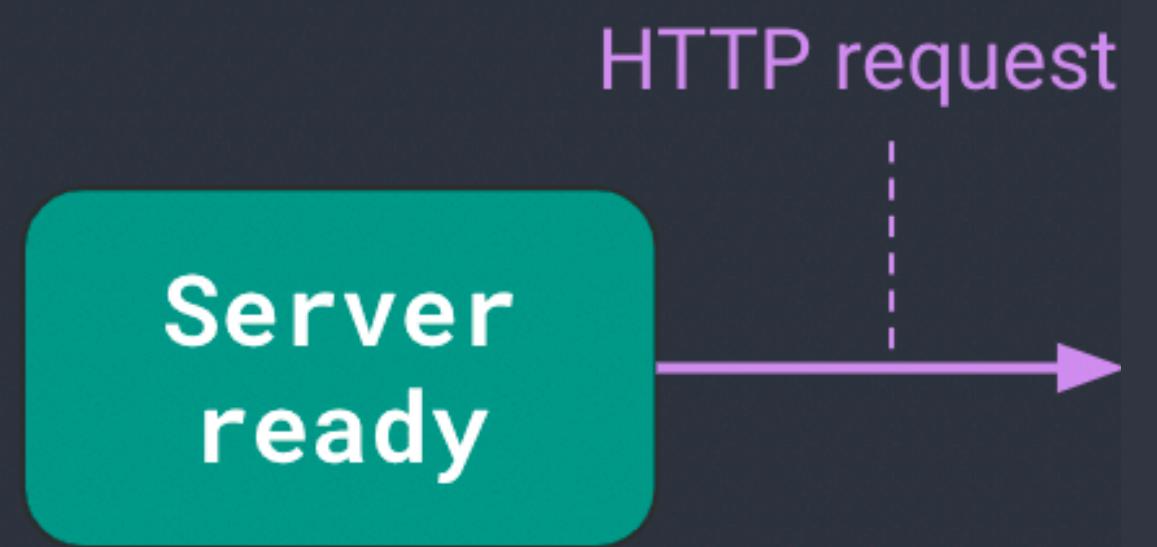
# Bundle based dev server



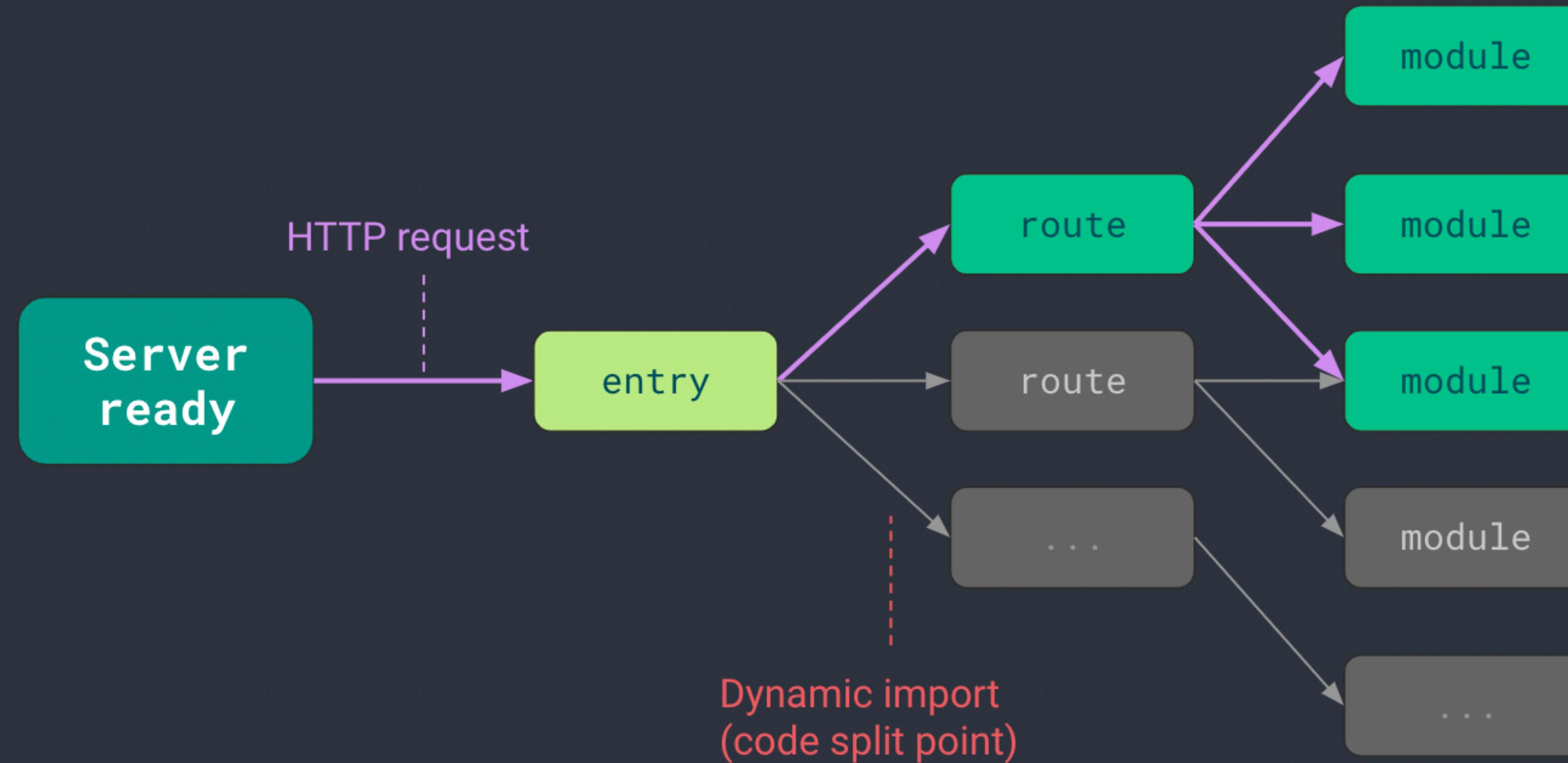
# Bundle based dev server



# Native ESM based dev server



# Native ESM based dev server



# Dependency Cache

The screenshot shows the Network tab in the Chrome DevTools Performance panel. The timeline at the top indicates a request for `react_jsx-dev-runtime.js` took approximately 1200ms. The request details for this file are expanded, showing the following information:

- General:**
  - Request URL: `http://localhost:3000/node_modules/.vite/react_jsx-dev-runtime.js?v=5c2c5406`
  - Request Method: GET
  - Status Code: 200 OK (from disk cache)
  - Remote Address: 127.0.0.1:3000
  - Referrer Policy: strict-origin-when-cross-origin
- Response Headers:**
  - Access-Control-Allow-Origin: \*
  - Cache-Control: max-age=31536000, immutable
  - Content-Length: 105922
  - Content-Type: application/javascript
  - Date: Sun, 19 Dec 2021 14:54:31 GMT
  - Etag: W/"883b-W50F5n8oAiX4FsCxu96K6FPeIvg"
- Request Headers:**
  - Origin: `http://localhost:3000`
  - Referer: `http://localhost:3000/src/main.jsx?t=1639927743048`
  - sec-ch-ua: " Not A;Brand";v="99", "Chromium";v="96", "Google Chrome";v="96"

# Source Code: 304 Not Modified

The screenshot shows the Network tab in the Chrome DevTools developer tools. The left sidebar lists network requests, and the main area displays the details for a specific request to 'localhost'.

**Name:** localhost

**General**

- Request URL:** http://localhost:3000/src/App.jsx
- Request Method:** GET
- Status Code:** 304 Not Modified (highlighted with a yellow box)
- Remote Address:** 127.0.0.1:3000
- Referrer Policy:** strict-origin-when-cross-origin

**Response Headers**

- Access-Control-Allow-Origin: \*
- Connection: keep-alive
- Date: Fri, 29 Oct 2021 08:18:44 GMT
- Keep-Alive: timeout=5

**Request Headers**

- Accept: \*/\*
- Accept-Encoding: gzip, deflate, br
- Accept-Language: zh-TW,zh;q=0.9,en-US;q=0.8,en;q=0.7,zh-CN;q=0.6
- Connection: keep-alive

# Rollup Bundle for Production

- Some of the important features in esbuild needed for bundling applications are still work in progress.
- Vite won't rule out the possibility of using esbuild for production build when it stabilizes these features in the future.



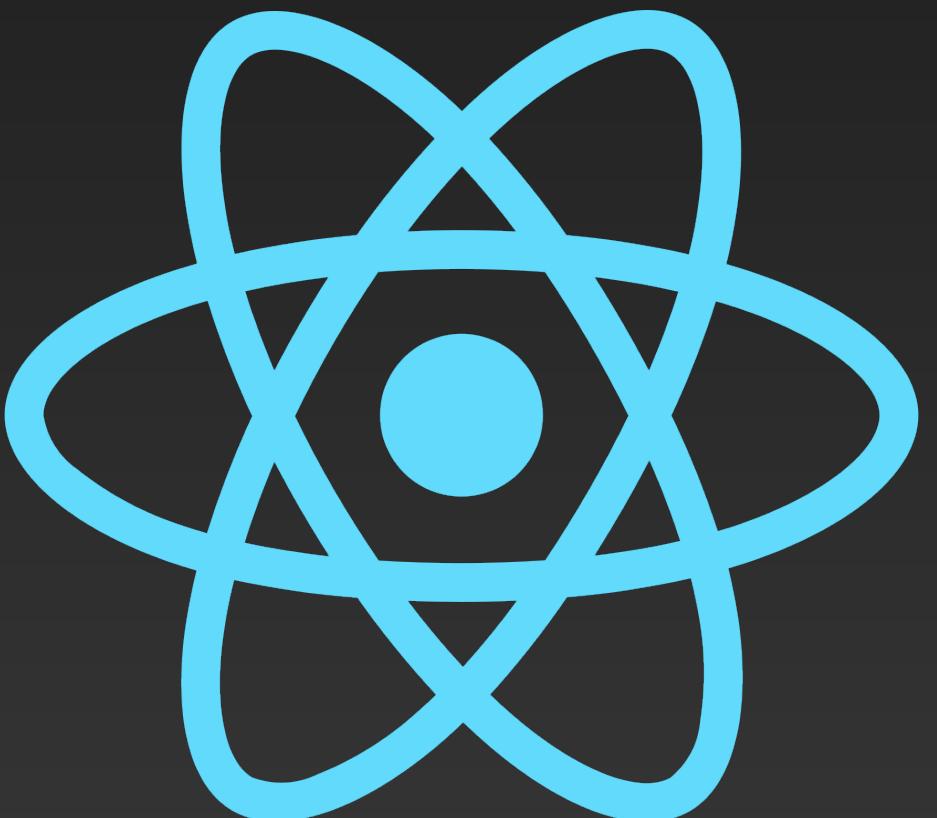
**Once you experience how fast Vite is,  
you wouldn't be willing to put up with  
bundled development again.**

Vite Official Website

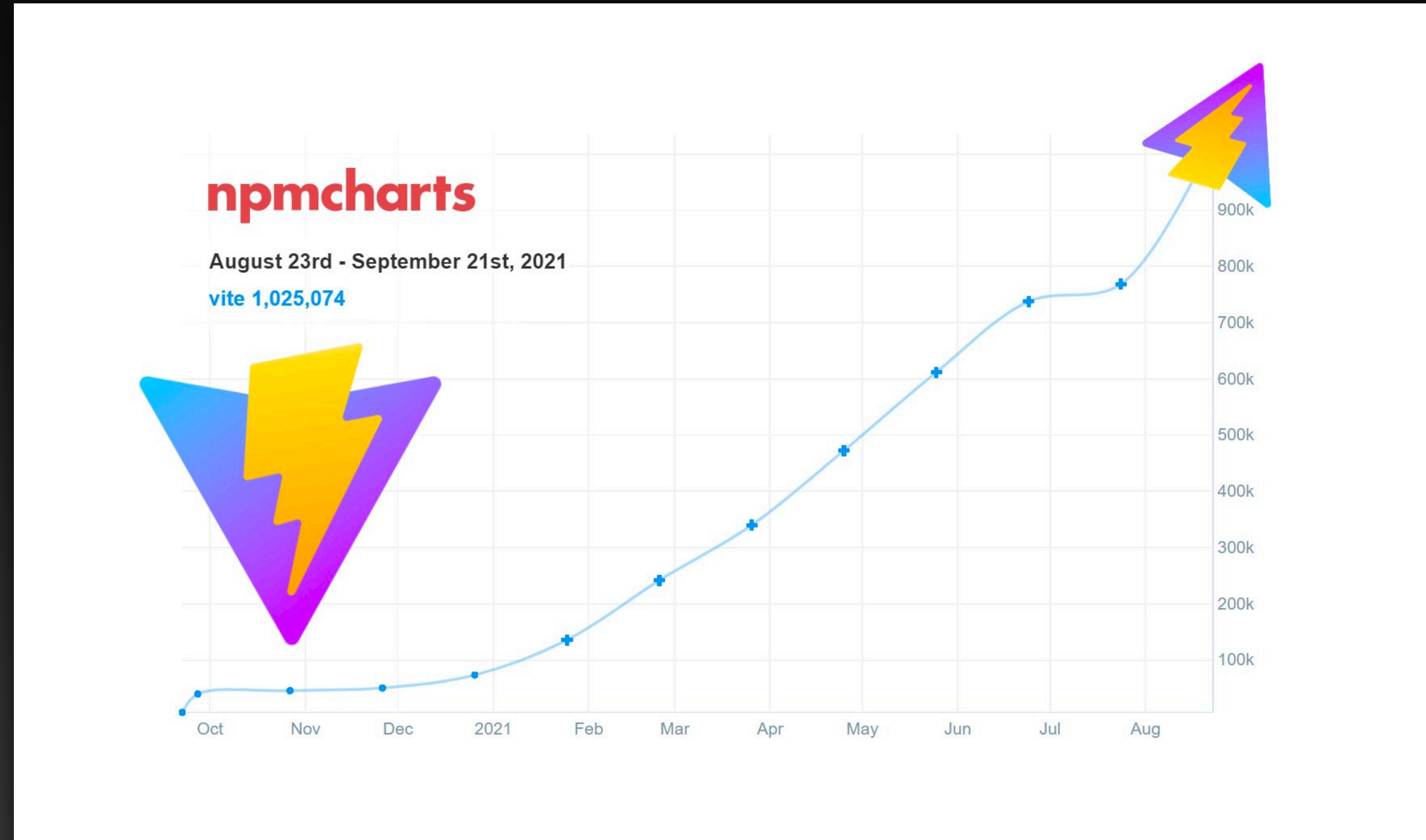
# Why Vite is our choice?

# @vitejs/plugin-react

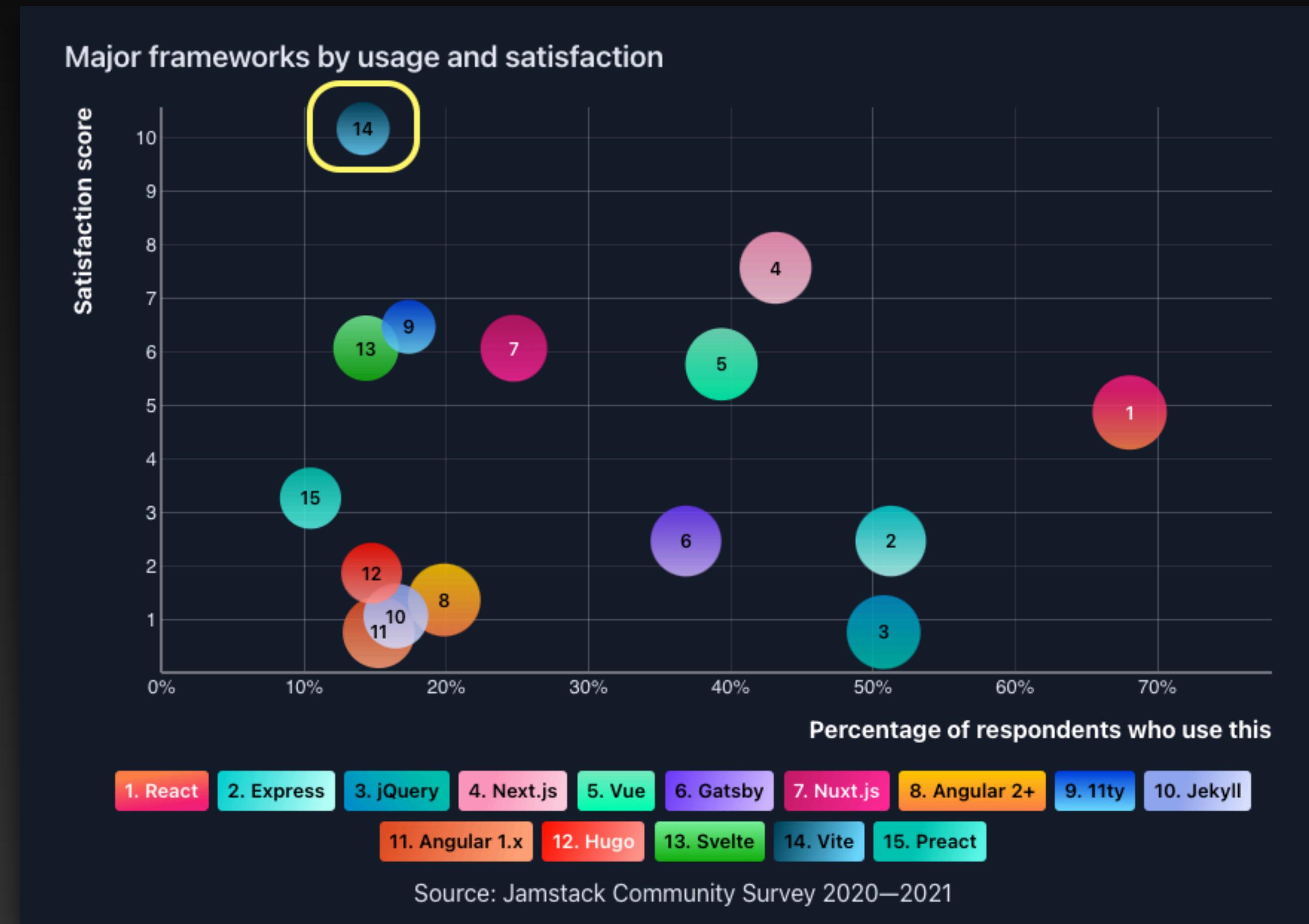
- Enable Fast Refresh in development
- Use the automatic JSX runtime (no import React)
- React 18



# 1 million monthly npm downloads



# Major frameworks by usage and satisfaction



# What Vite can do more?

# What Vite can do more?

- Plugins (Compatible Rollup plugins)
- awesome-vite
- Monorepo

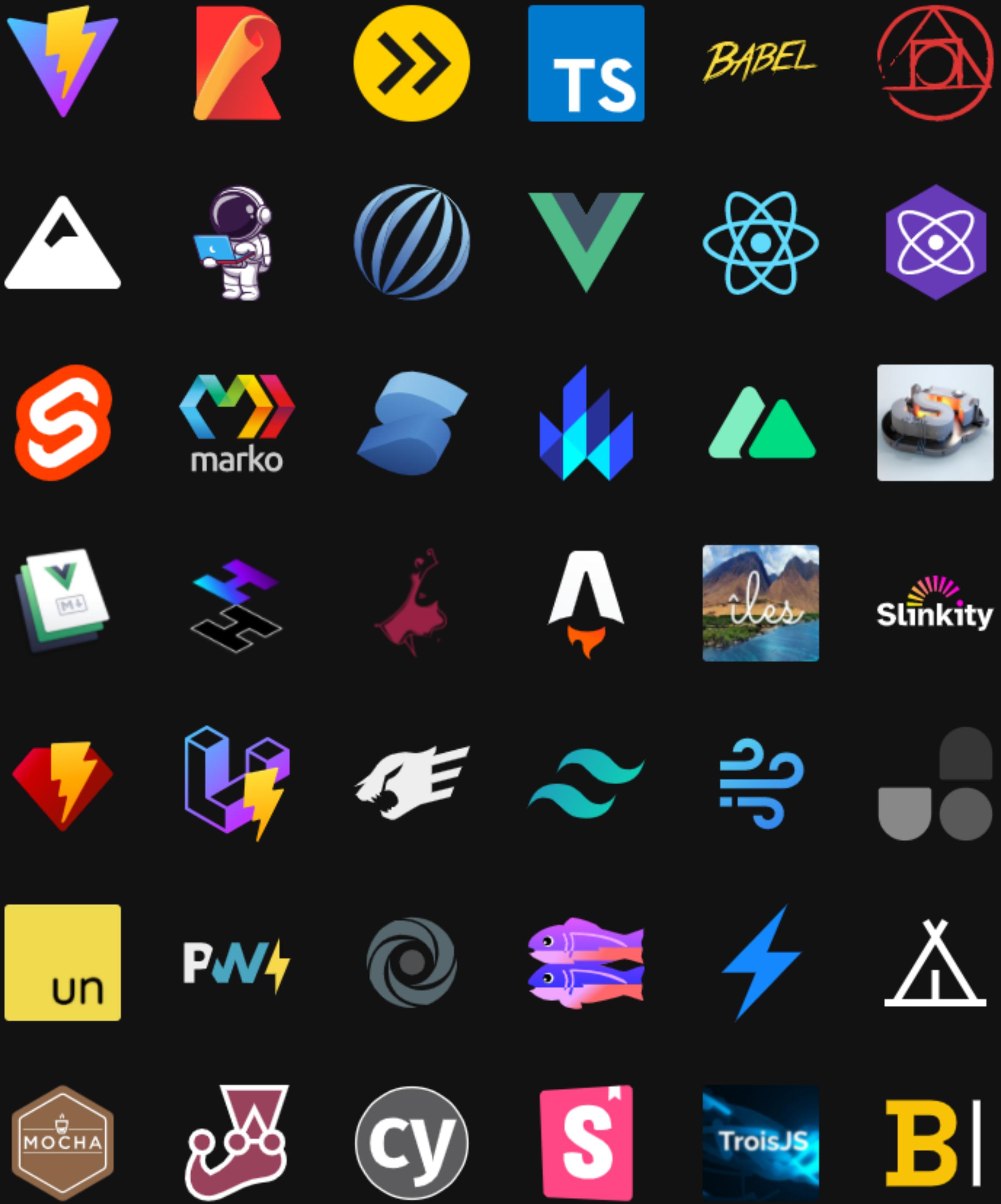


# And more!!

- @vitejs/plugin-legacy
- SSR (Experimental)
- Work with Node.js server, Storybook, Jest

# The Vite Ecosystem

[https://patak.dev/vite/  
ecosystem.html](https://patak.dev/vite/ecsyst...)



# Demo

## Account Dashboard by Vite

Stanley Huang 2021

**Vite is optimized for  
the common use cases.  
90% of existing devs and  
100% of beginners.**

Evan You, Author of Vite and Vue.js

# Links

- [Documentation](#)
- [GitHub](#)
- [Twitter](#)
- [Discord](#)

# Q&A

**Thank you for listening**