ANGULAR
ARCHITECTS
INSIDE KNOWLEDGE

Further topics of Performance Optimization

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Outline

1. Smart vs Dumb Components

2. Web Workers for heavy calculations
    1. Worklet API
    2. PartyDown

3. Service Worker / PWA

4. Scheduling

Thought experiment

- What if <flight-card> would handle use case logic?
  - e.g. communicate with API
- Number of requests ==> Performance?
- Traceability?
- Reusability?

#1: Smart vs. Dumb Components

Smart	Dumb
• Use Case controller • Container	• Independent of Use Case • Reusable • Leave

#2: Web Workers – Use cases

- Import external scripts
- Make XMLHttpRequest / API requests
- Use setTimeout() and setInterval()
- Spawn other workers
- Use IndexedDB, Notifications API, Web Crypto API, WebAssembly, WebSockets, WebGL, OffscreenCanvas, ImageData…
- Terminate themselves when you deem they are no longer needed
- …

#2: Web Workers – Implementations

- Worklet API
- partytown
- …

#3: Service Workers (PWA)

- Proxy or serving HTTP requests
- Background code execution
- Web push notifications
- Process payments
- …

#4: Scheduling

- Use setTimeout() to delay work
- Use setInterval() to invoke tasks continously
- Don't forget to clearTimeout() and clearInterval() on destroy