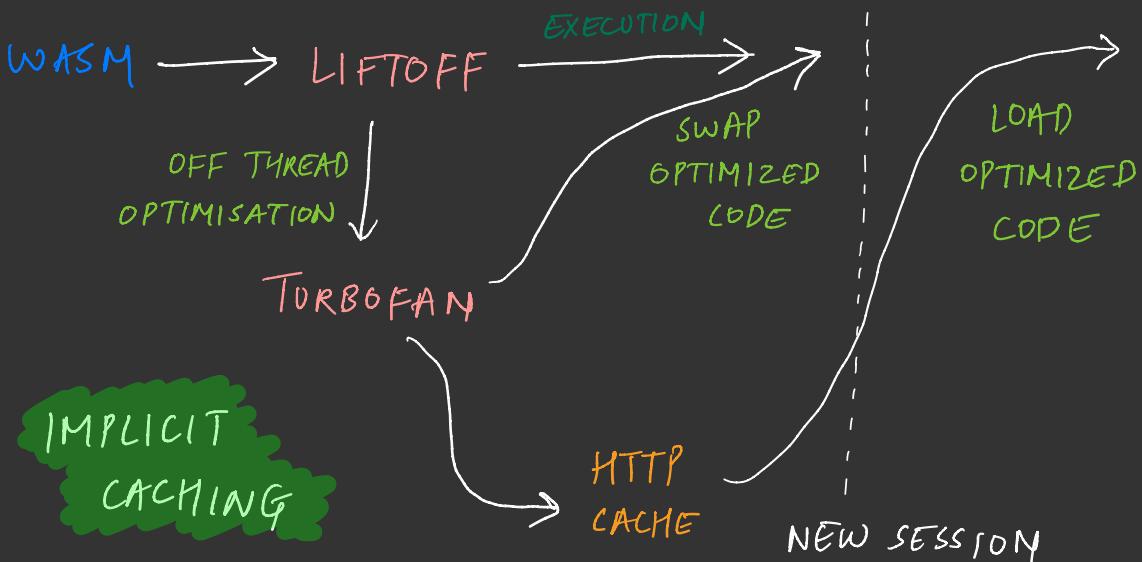


2

MODERN WEBASSEMBLY

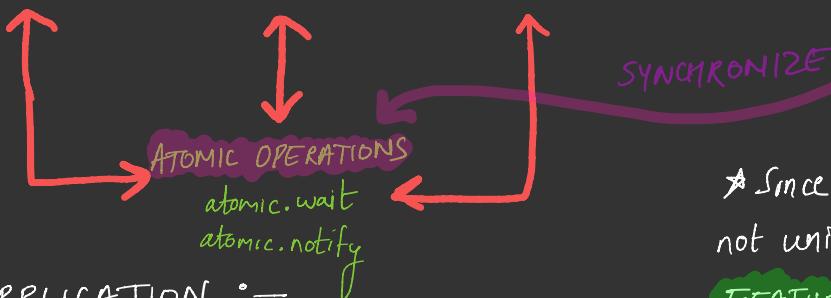
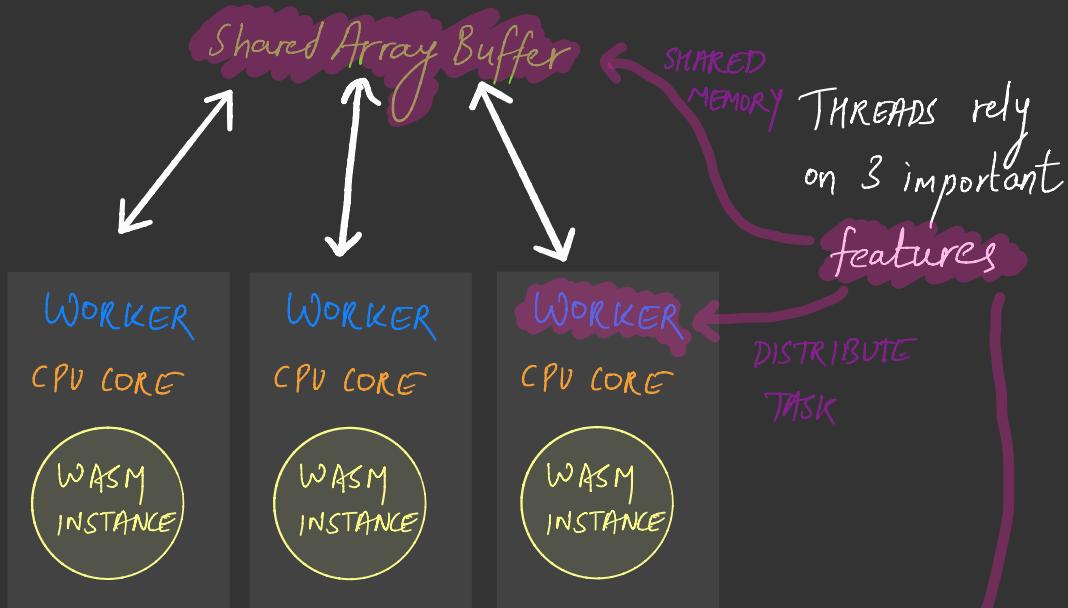
CHROME
DEV SUMMIT
2019

- * Not a replacement for Java
- * Portability → Use open source libraries in web applications.
⇒ Shipped in all MAJOR BROWSERS.



- TIP1 # USE STREAMING APIs**
- compile streaming
 - instantiate streaming
- TIP2 # BE CACHE FRIENDLY** → Keep URLs stable

WEB ASSEMBLY THREADS :-



APPLICATION :-

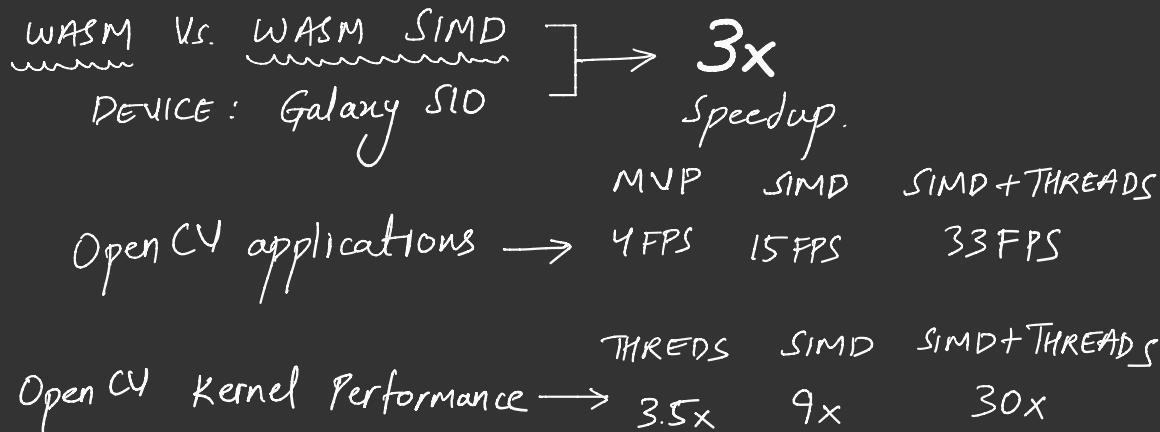
- ① GOOGLE EARTH ② VLC
- 2x Frame Rate $\frac{1}{2}$ x Dropped Frames

* Since THREADS are not uniformly supported, **FEATURE DETECTION** is recommended.
↓
`wasm-feature-detect`

pthread < `std::thread` < `std::async`

pthread is used by these higher level APIs. The goals of higher level APIs will be lowered to same **pthread** goals and handled by **EMSCRIPTEN**.

SIMD: SINGLE INSTRUCTION MULTIPLE DATA



AUTO-VECTORIZATION → Compiler Feature

↳ Detects loops that perform same mathematical operations on array items independently

SIMD
↓
Experimental and available only in Chrome

Must be used with

FEATURE DETECTION

