

PWA 与 LAVAS

彭星
百度前端工程师

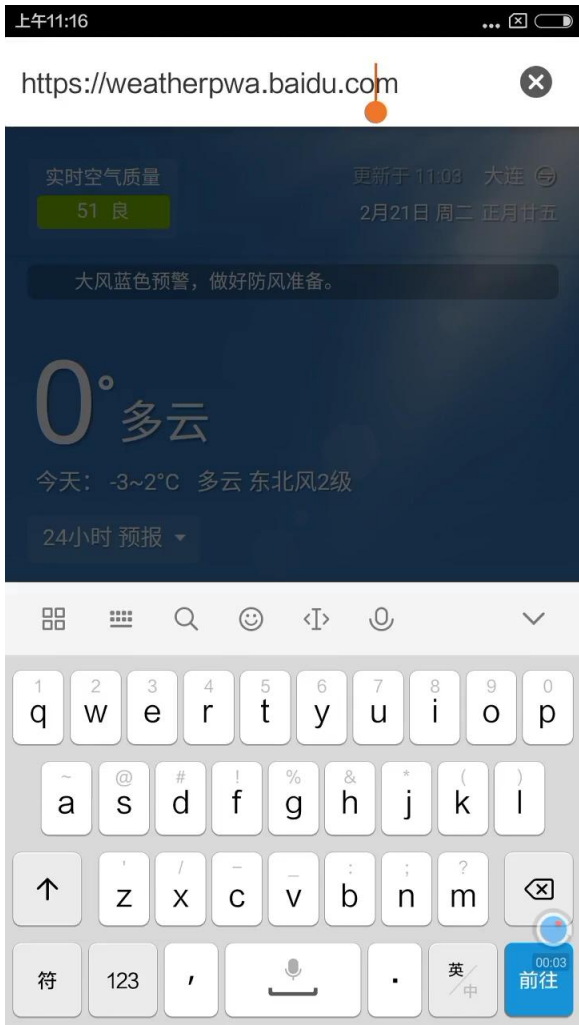


彭星

LAVAS团队负责人

Location: 上海 张江

What is Progressive Web Apps



- 主屏图标 (**Web App Manifest**)
- 离线可用 (**Service Worker**)
- 离线通知 (**Push API & Notification API**)



可靠



快



用户留存

What **exactly** is Progressive Web Apps

PWA 是指

渐进式提升用户体验的站点

All for
User Experience

- Design Pattern
- PRPL Pattern
- Security
- ...

What is **LAVAS** ['lɑ:vəz]



LAVAS

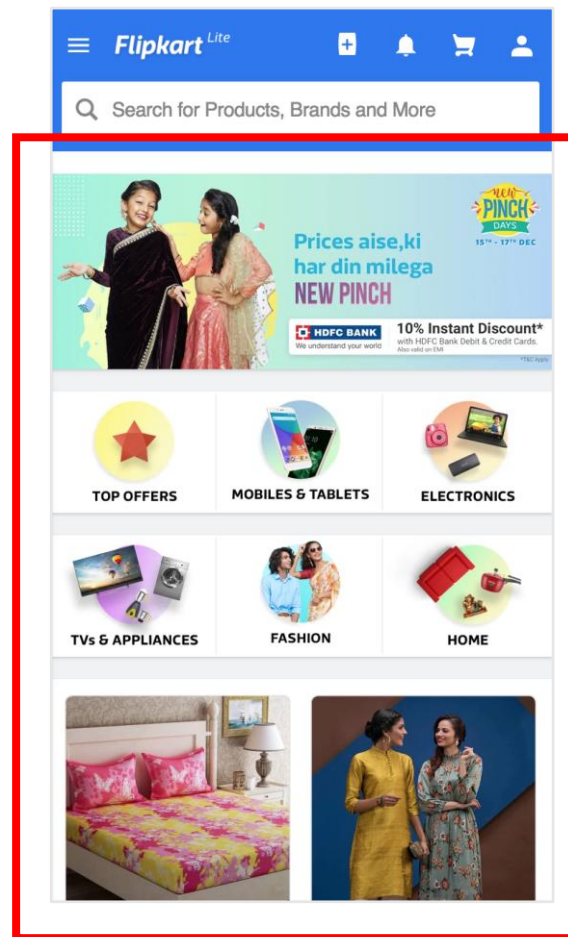
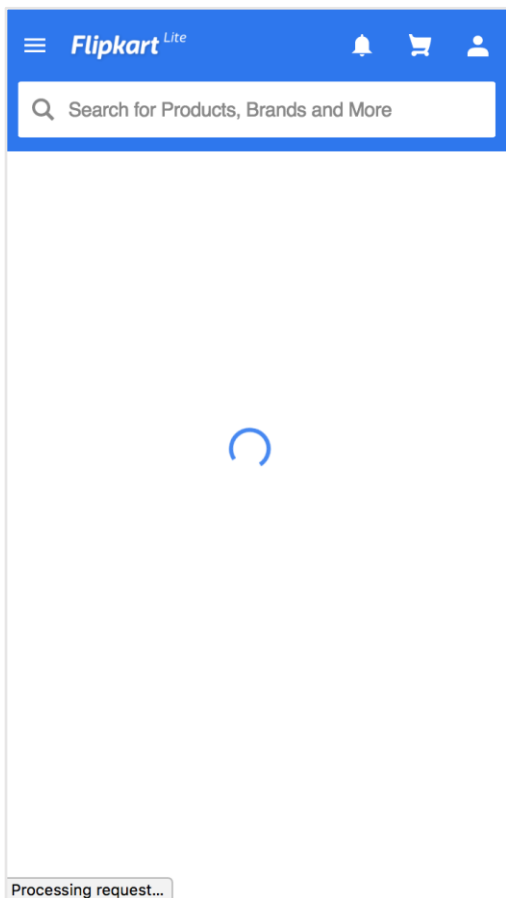
基于 Vue 的 PWA 解决方案

<https://lavas.baidu.com/>

<https://github.com/lavas-project/>

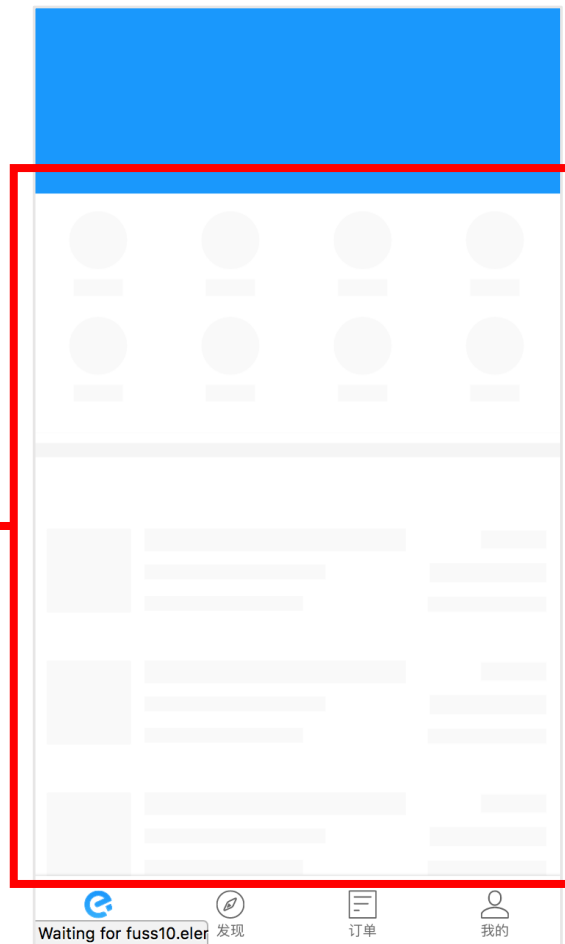
PWA 通常是 SPA

PWA 通常采用 App Shell 设计模型



内容

App Skeleton



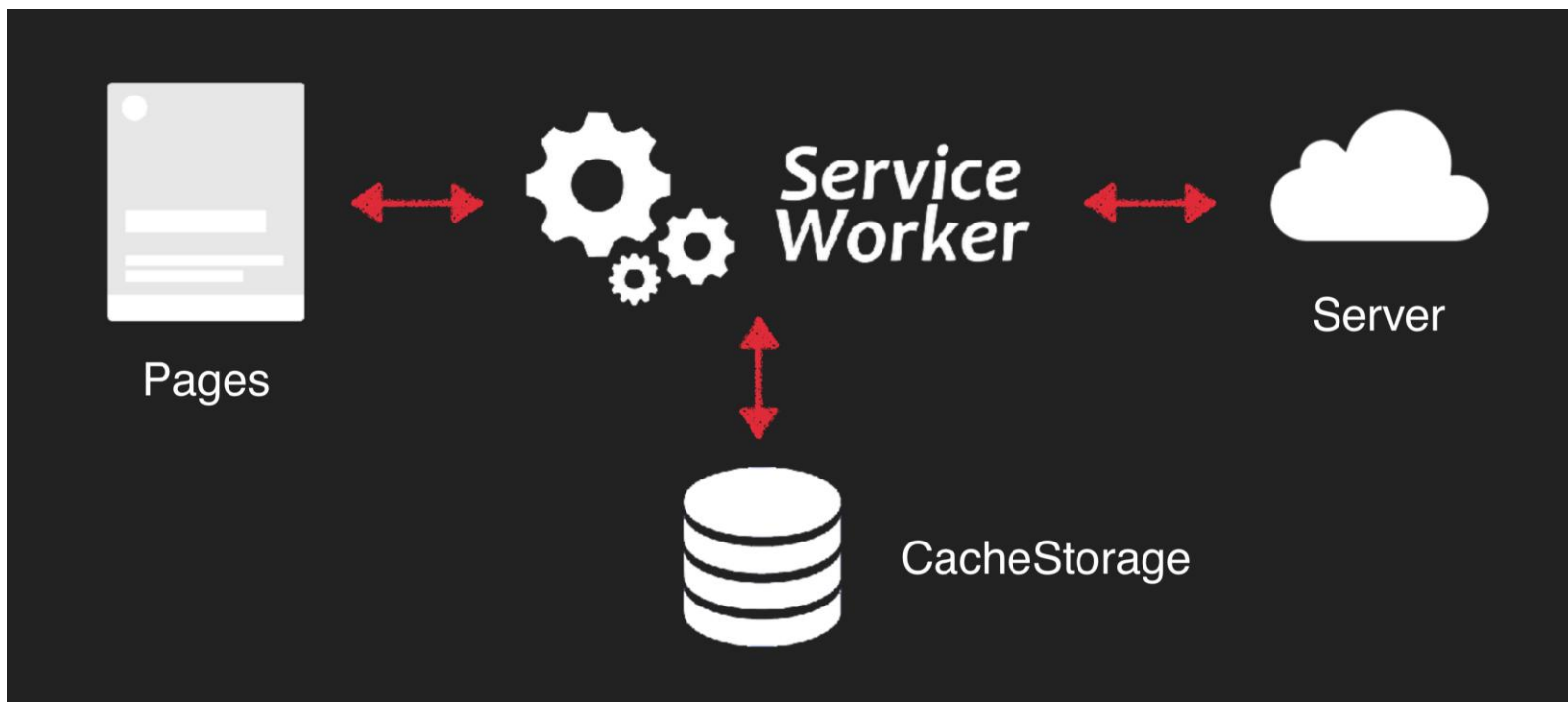
ele.me

Service Worker

服务工作线程



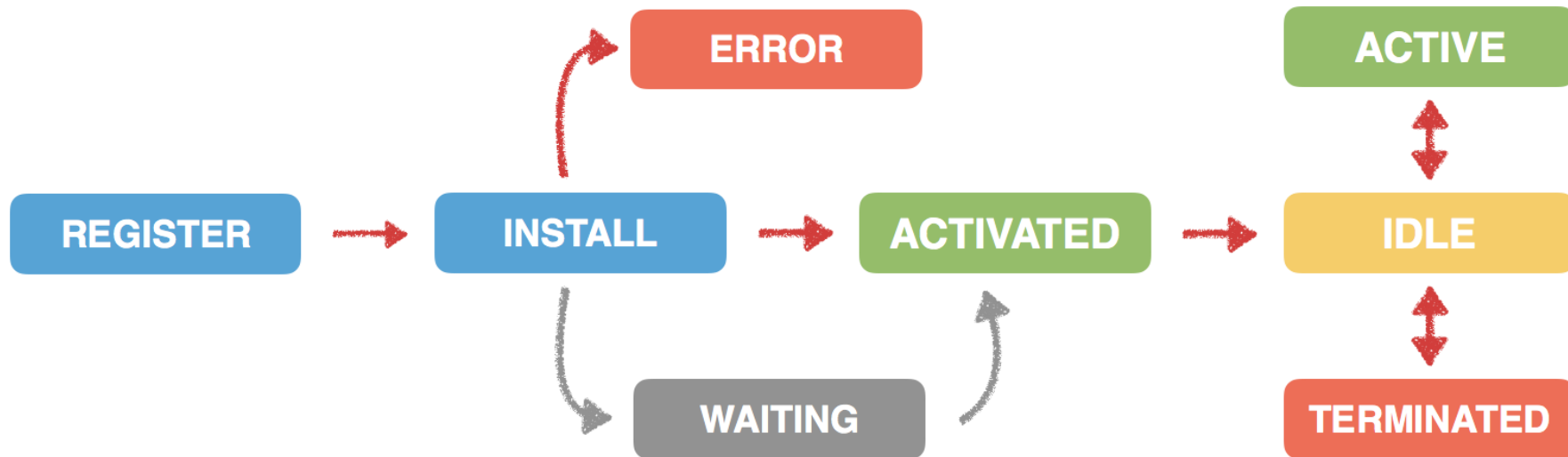
『 消灭恐龙 』

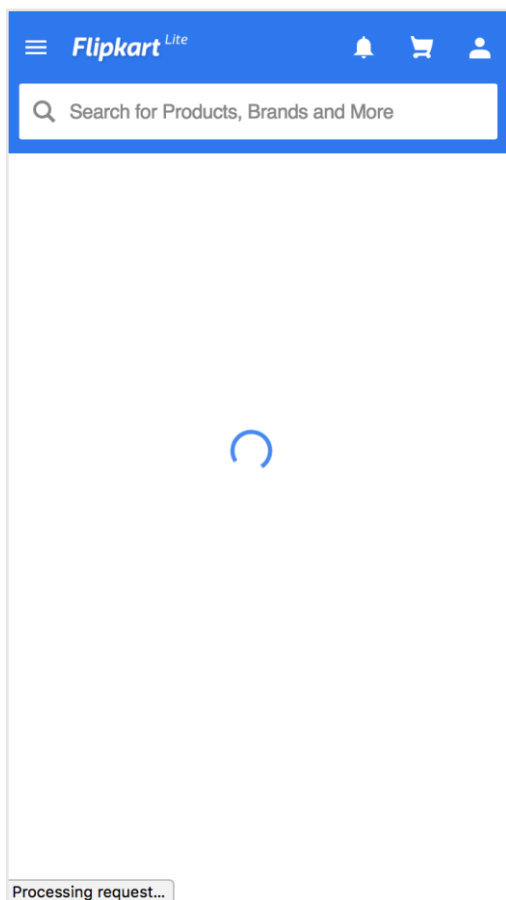




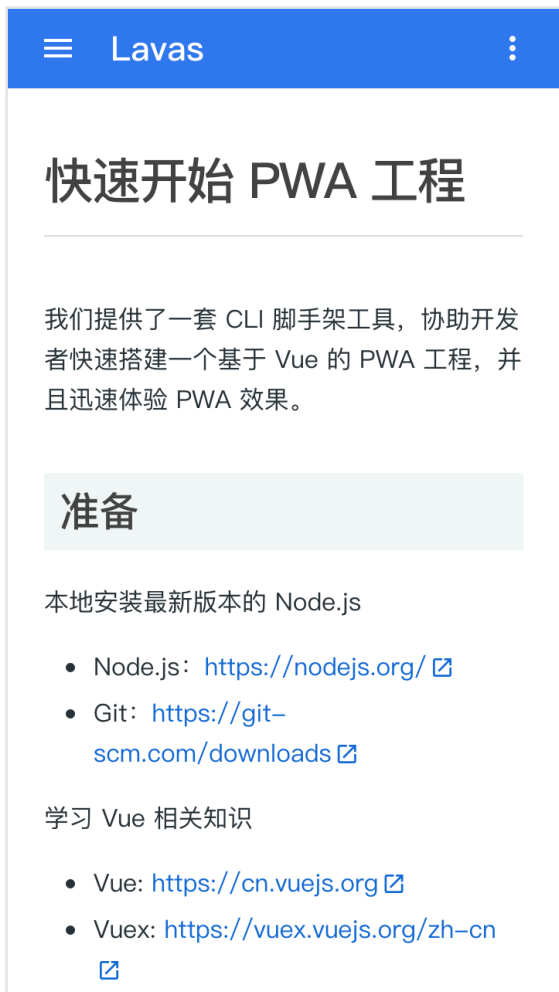
Safari Technology Preview 46

<https://lavas.baidu.com/ready>





- 缓存 App Shell 所需静态文件
- 所有页面请求均返回 App Shell
- App Shell 通过当前路径渲染不同页面



The desktop view of the Lavas website features a blue header with a hamburger menu icon, the text 'Lavas', and a vertical ellipsis icon. The main content area has a white background with a section titled '快速开始 PWA 工程' (Quick Start PWA Project). Below the title is a paragraph of introductory text. A light gray box contains the heading '准备' (Preparation), followed by instructions on installing Node.js and a list of links for Node.js, Git, Vue, and Vuex.

☰ Lavas

快速开始 PWA 工程

我们提供了一套 CLI 脚手架工具，协助开发者快速搭建一个基于 Vue 的 PWA 工程，并且迅速体验 PWA 效果。

准备

本地安装最新版本的 Node.js

- Node.js: <https://nodejs.org/>
- Git: <https://git-scm.com/downloads>

学习 Vue 相关知识

- Vue: <https://cn.vuejs.org/>
- Vuex: <https://vuex.vuejs.org/zh-cn>



The mobile view of the Lavas website is shown within a red border. The top status bar displays the time '19:15', network speed '126K/s', and battery level '98%'. A notification bar at the top indicates '已更新最新版本' (Updated to the latest version) and '点击刷新' (Click to refresh). The main content area has a blue background with the title 'Lavas' and a paragraph describing the PWA solution. Two buttons are visible: '起步' (Get Started) and 'Github'. The bottom section is white with the heading '开始吧' (Let's Start) and a paragraph about creating a PWA application.

19:15 126K/s 98%

已更新最新版本 点击刷新

Lavas

基于 Vue 的 PWA 解决方案，帮助开发者快速搭建 PWA 应用，解决接入 PWA 的各种问题

起步

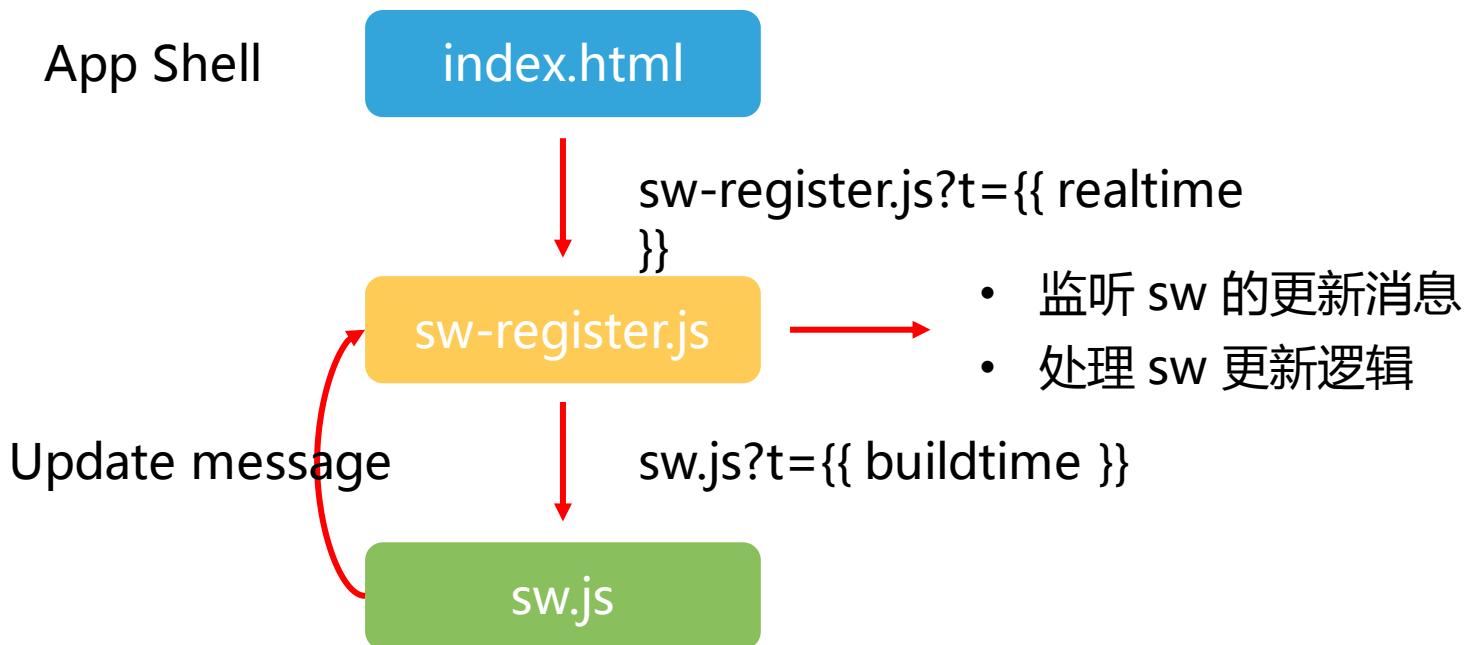
Github

开始吧

通过本教程，您将很快可以创建一个属于您的 PWA 应用

Service Worker 更新机制

- 浏览器每天至少更新一次 Service Worker
- 手动更新 `registration.update()`
- 注册新的 Service Worker
- 逐字节对比新 sw 文件和旧 sw，有区别才更新



[sw-register-webpack-plugin](#)

- Service Worker 作用域
- CacheStorage 缓存更新
- 选择缓存策略，如: networkFirst 等
- ...

PWA 如何做 SEO

百度爬虫支持 SPA 移动站点



React

Vue

San

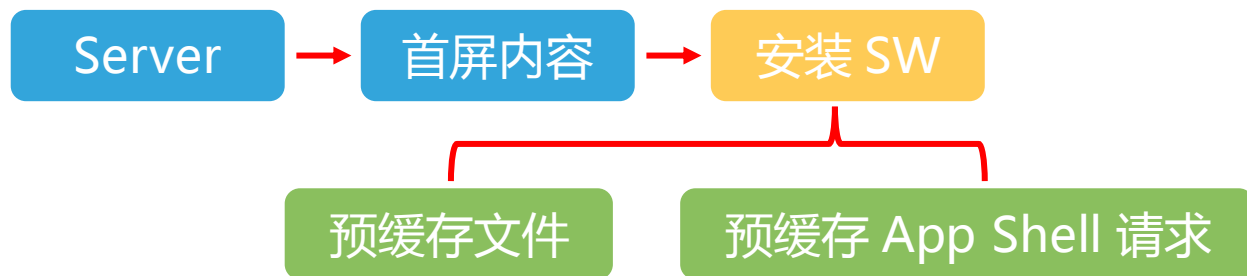
...

+

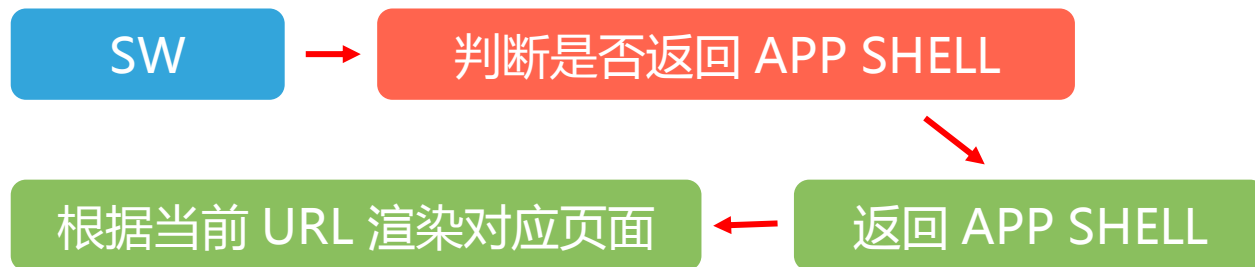
SSR

URL: <https://xxx.xxx/index.html>

第一次加载



第二次加载



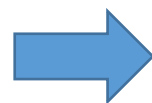
Service Worker

App Shell

App Skeleton

Vue SSR

...



LAVAS

- Credential Management API
- Web Payment API
- Web Share
- Device API
- ...

PWA 还在不断前进

PWA + LAVAS = Web + Android



<https://lavas.baidu.com/app>





Brilliant Open Web

GIAC | 全球互联网架构大会
GLOBAL INTERNET ARCHITECTURE CONFERENCE

GIAC

全球互联网架构大会

GLOBAL INTERNET ARCHITECTURE CONFERENCE



扫码关注GIAC公众号

2017.thegiac.com