

构建微服务云原生应用

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扫码试看/订阅

《Spring Boot & Kubernetes 云原生微服务实践》

CHAPTER

01

课程介绍和案例需求

第 1 部分

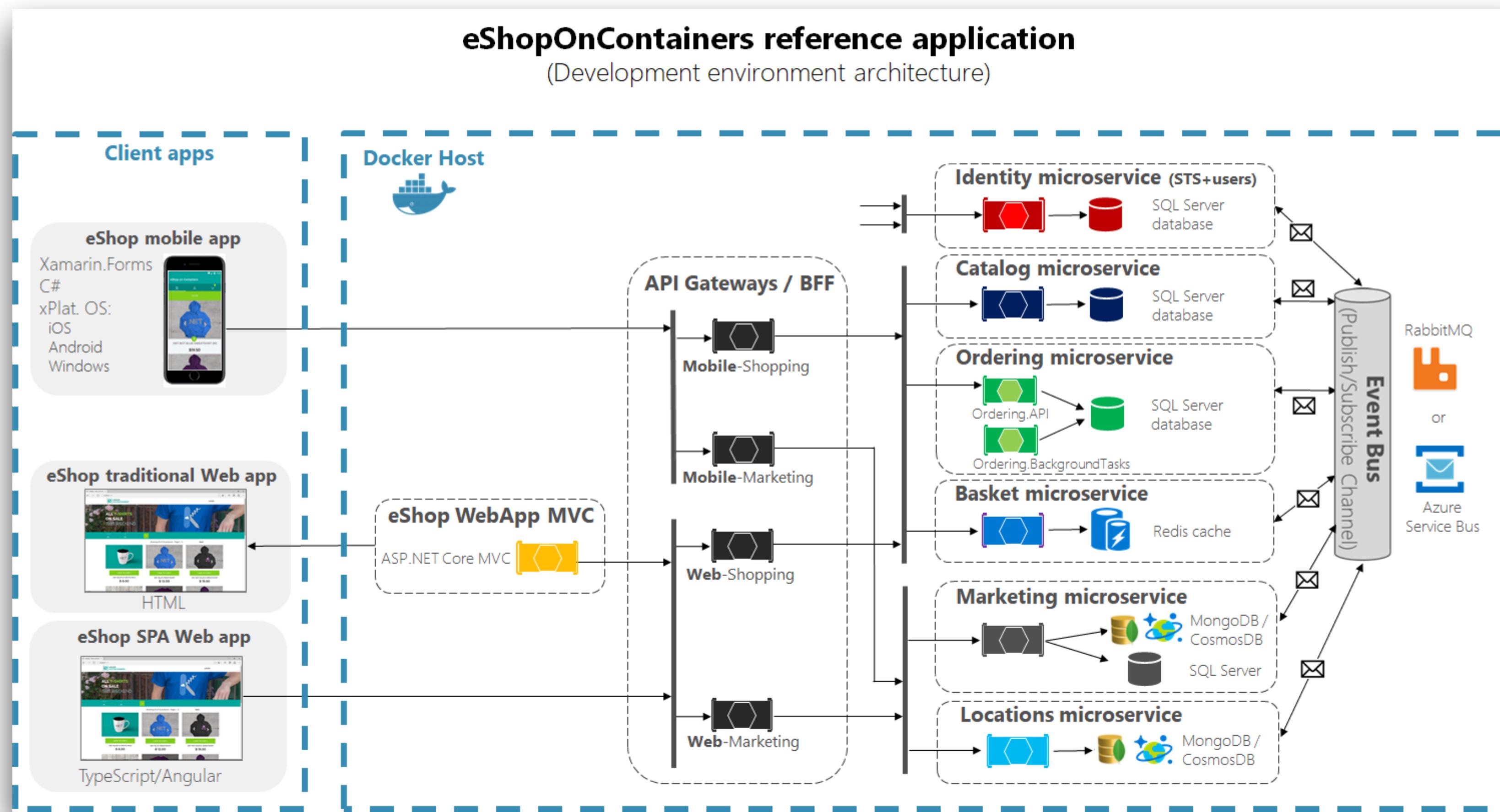
课程背景

课程背景

- 微服务+云原生理论和实际落地的鸿沟
- 纯教学案例过于简单
- 生产项目过于复杂
- 开发一个贴近生产的微服务+云原生教学案例

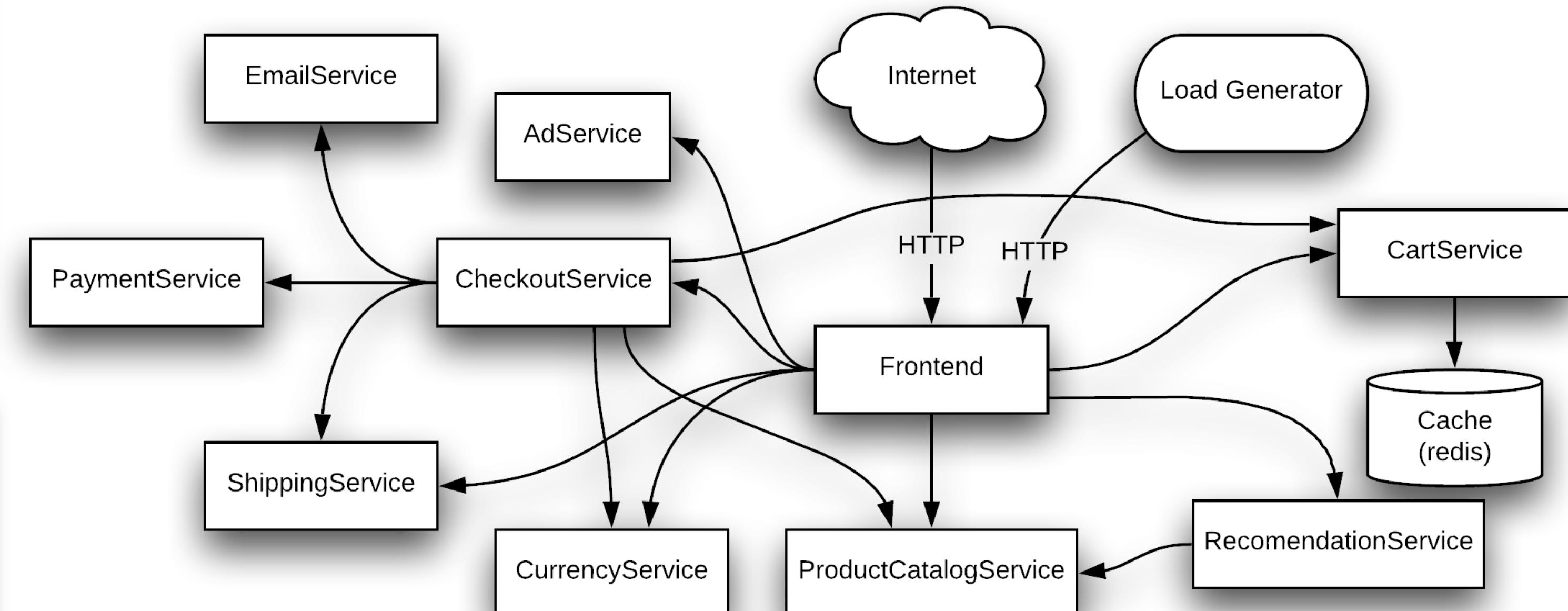
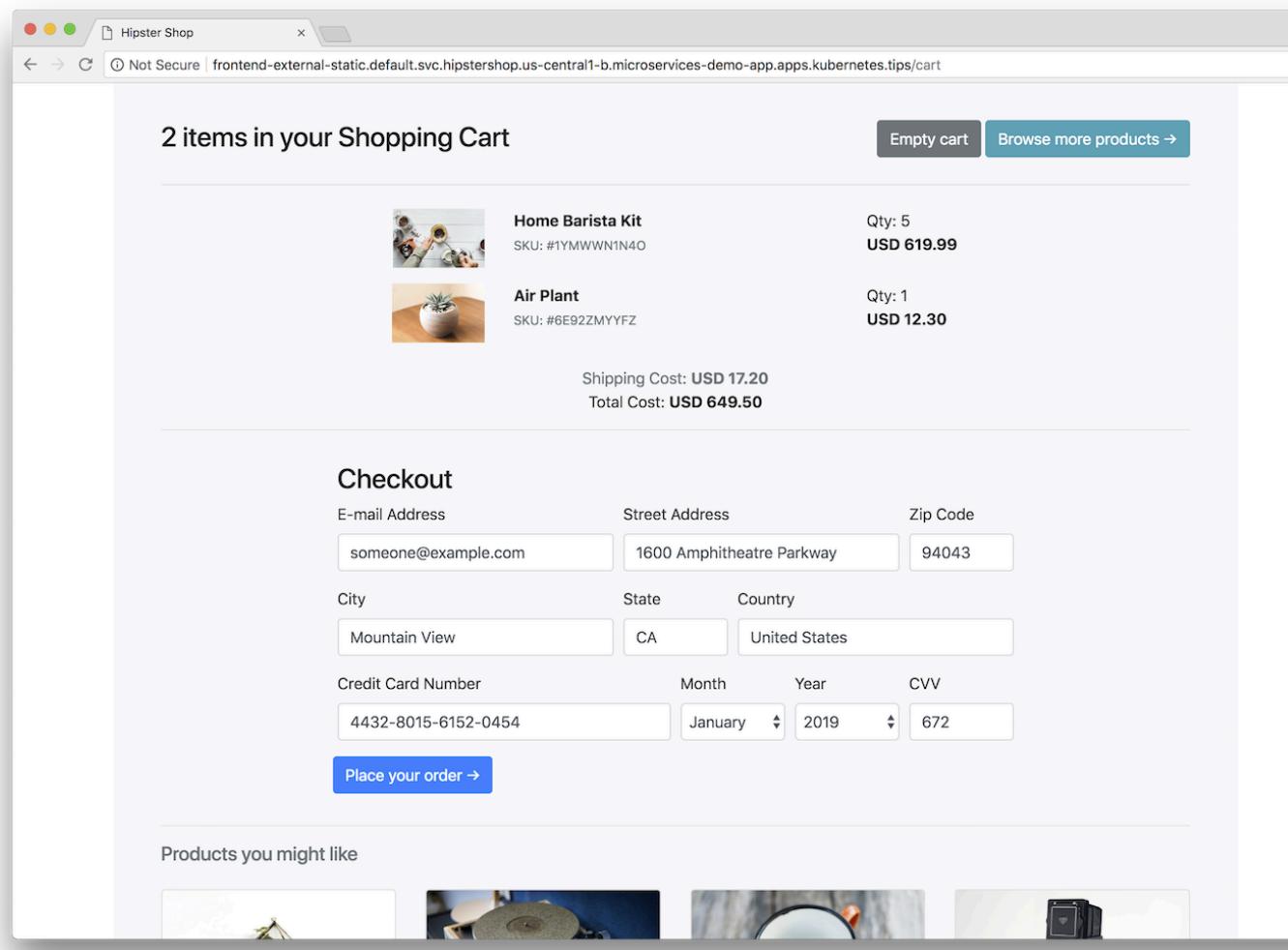
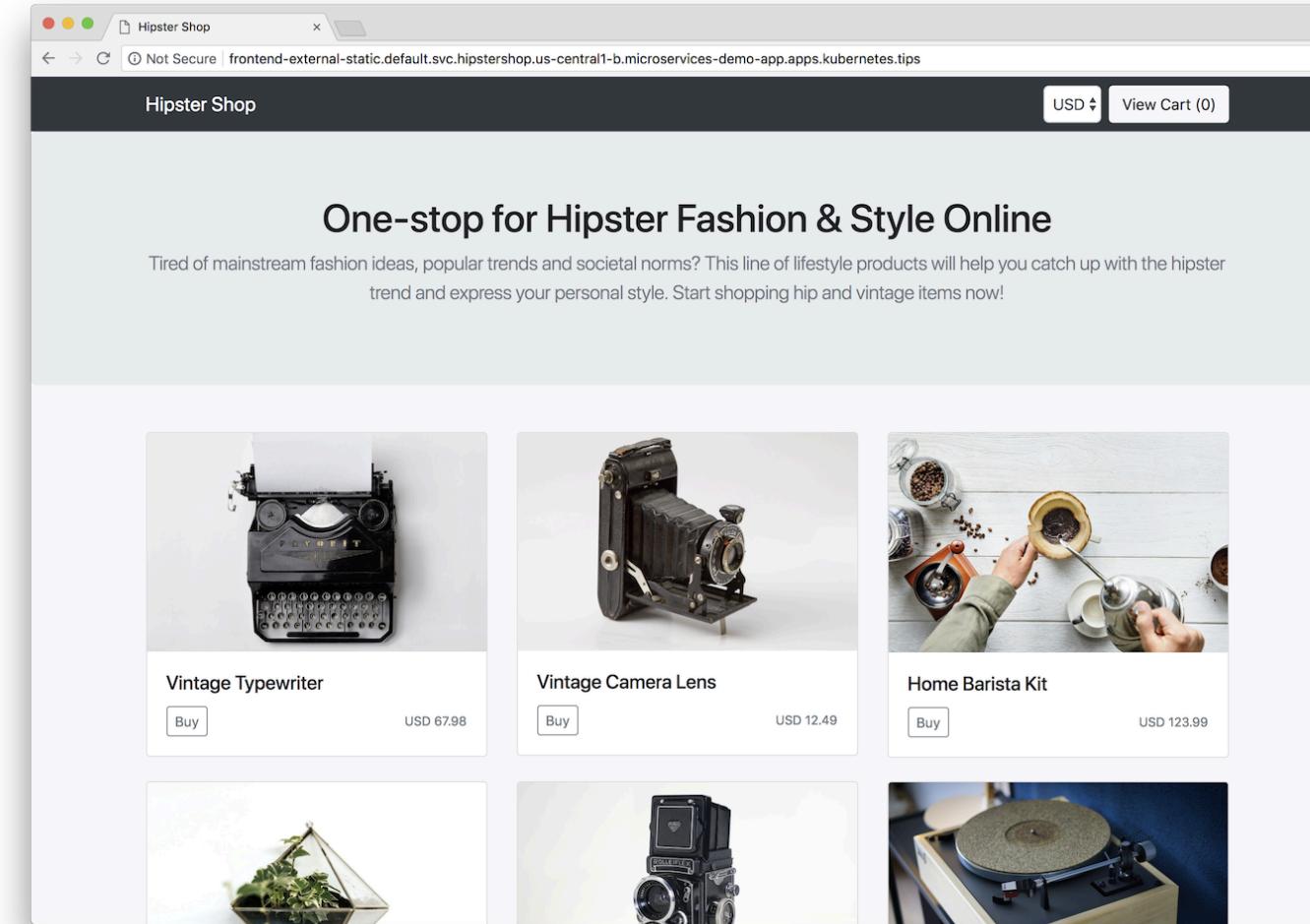


eShopOnContainers



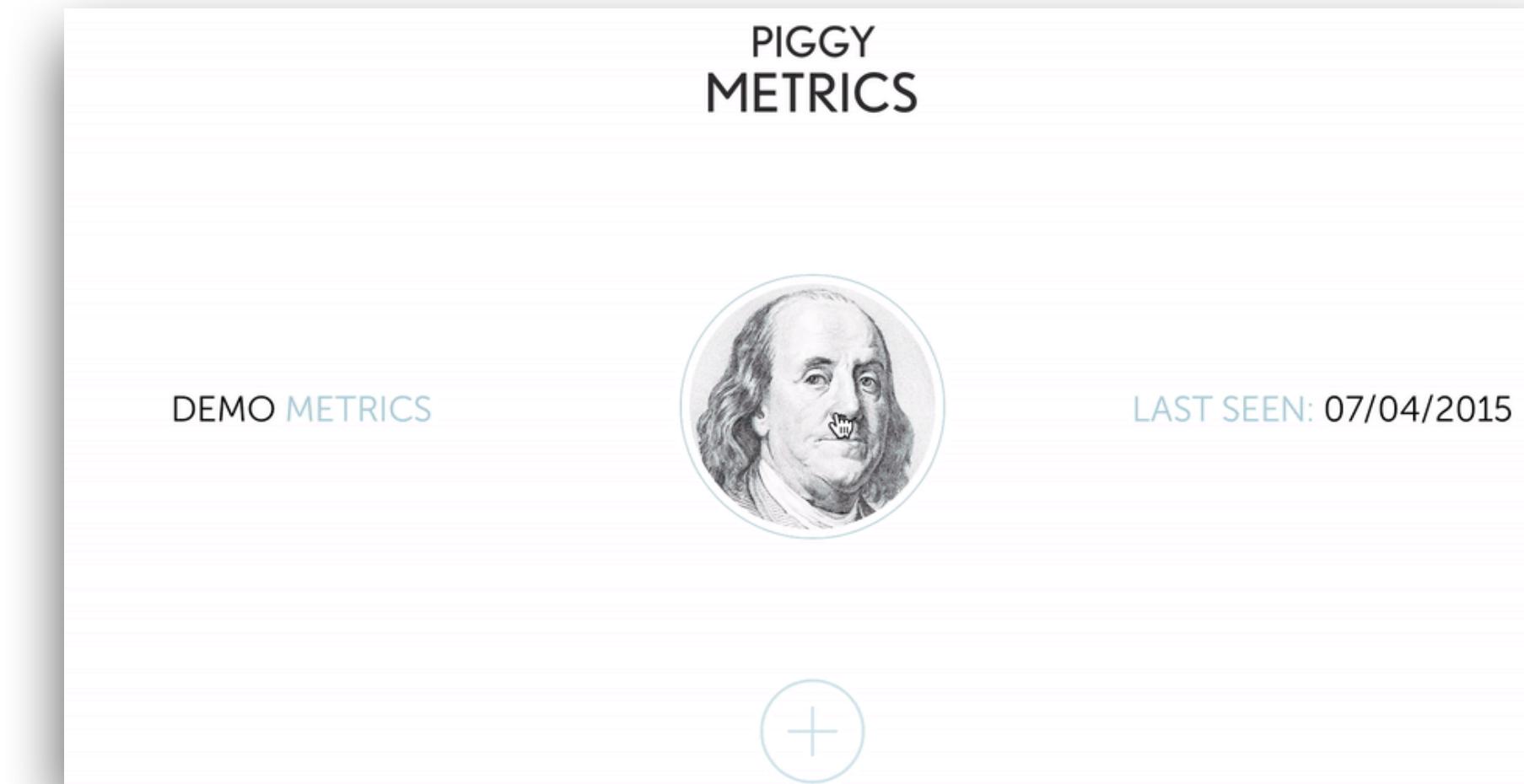
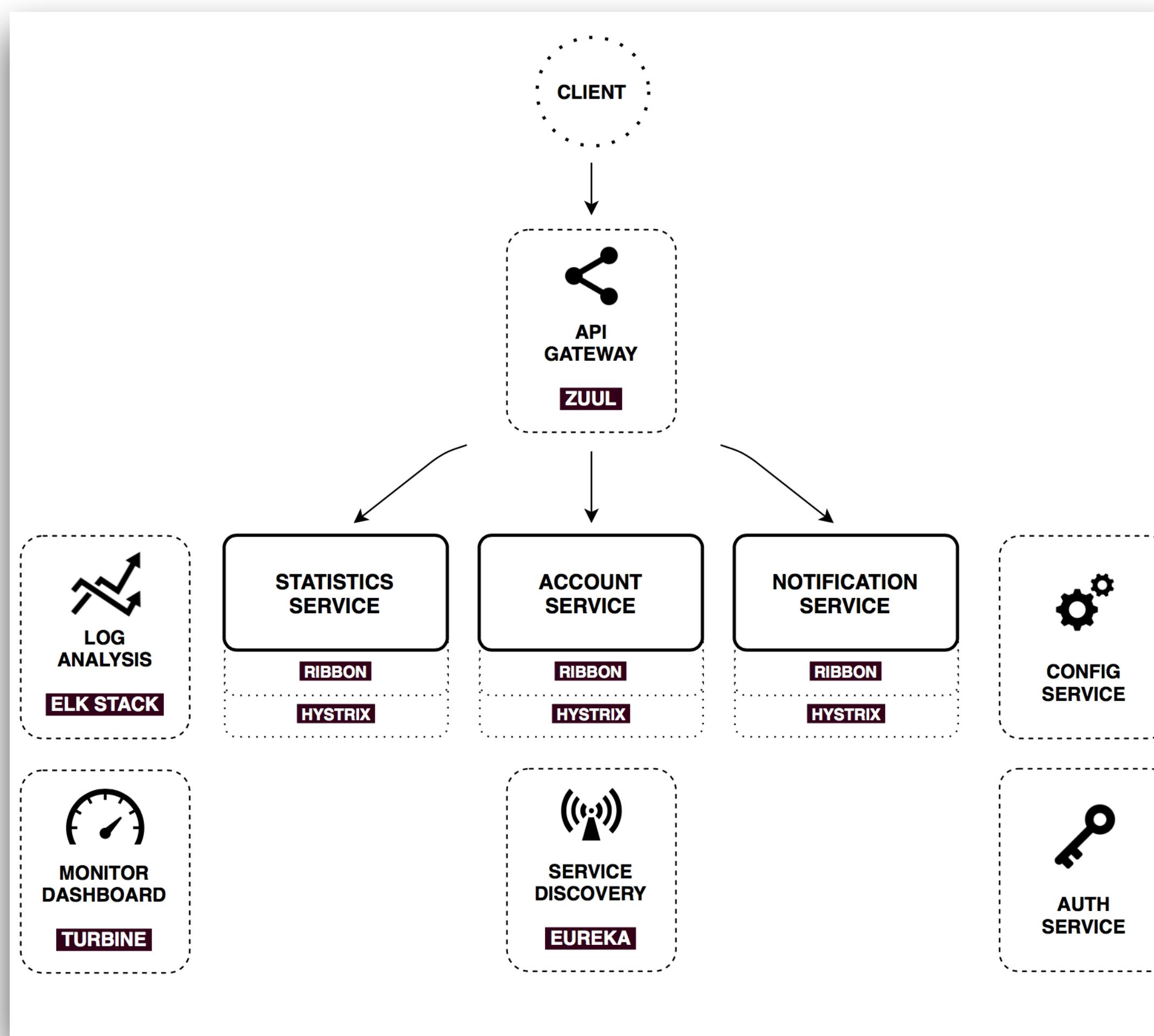
<https://github.com/dotnet-architecture/eShopOnContainers>

Microservices-Demo



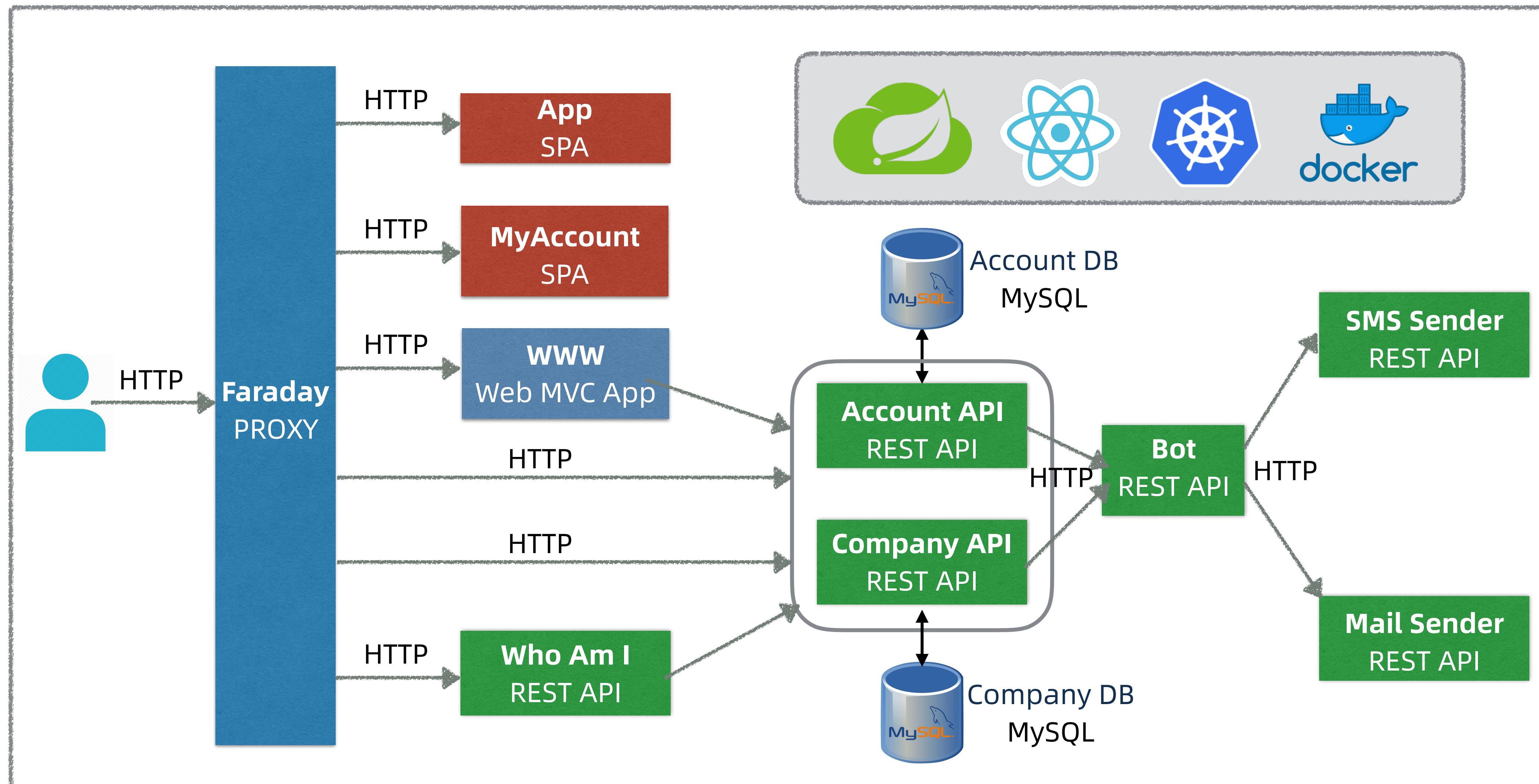
<https://github.com/GoogleCloudPlatform/microservices-demo>

Piggy-Metrics



<https://github.com/sqshq/piggymetrics>

Staffjoy 教学版



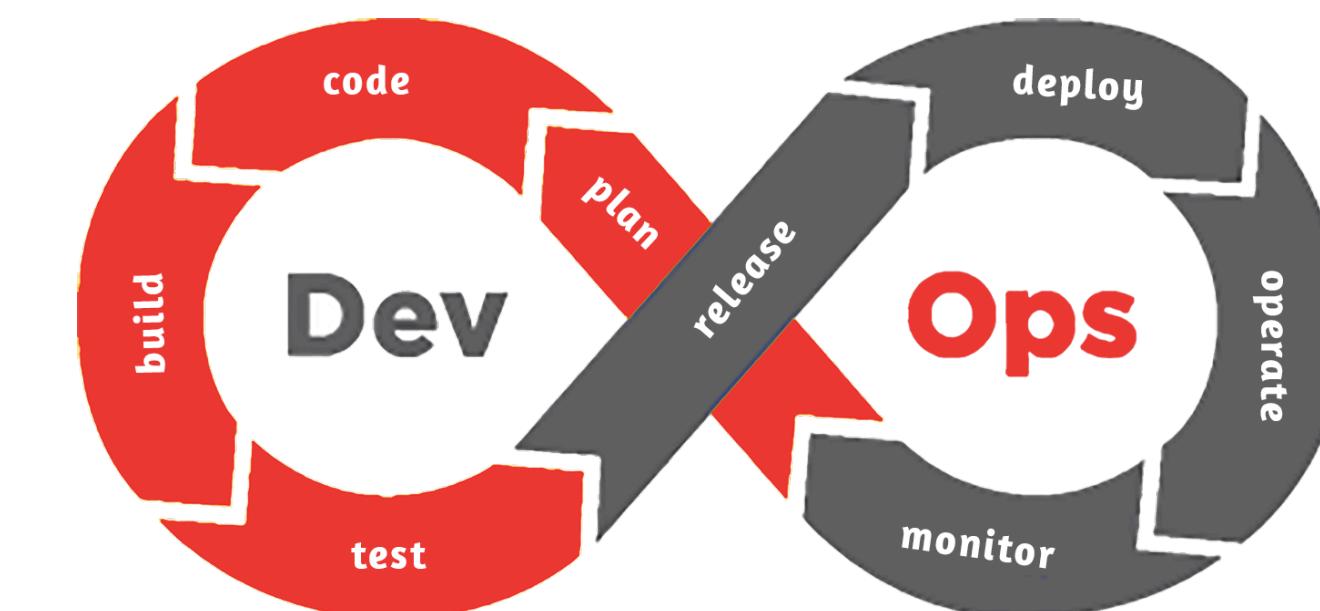
第 2 部分

课程目标和主要内容

课程目标和主要内容 Dev



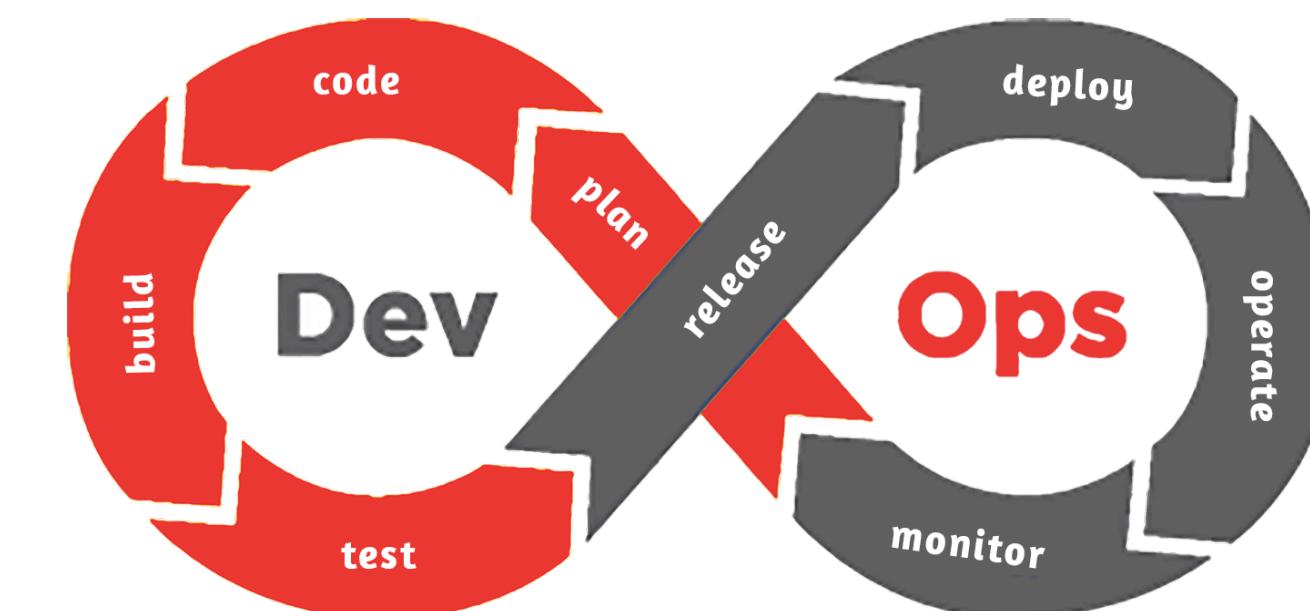
1. 掌握微服务架构和前后分离架构设计
2. 掌握基于 Spring Boot 搭建微服务基础框架
3. 进一步提升 Java/Spring 微服务开发技能
4. 掌握 Spring Boot 微服务测试和相关实践
5. 理解 SaaS 多租户应用的架构和设计



课程目标和主要内容 Ops



6. 理解可运维架构理念和相关实践
7. 掌握服务容器化和容器云部署相关实践
8. 理解云时代的软件工程流程和实践



第 3 部分

案例需求

Staffjoy 公司背景

1. 硅谷初创公司（2015 ~ 2017）
2. 工时排班（Scheduling）SaaS 服务
3. 开源
 1. <https://github.com/staffjoy/v2>
 2. 原版 Golang
 3. 课程教学版 Java/Spring

Staffjoy 应用需求

1. 功能

- 管理员 Admin 管理公司和排班
- 雇员 Worker 管理个人信息

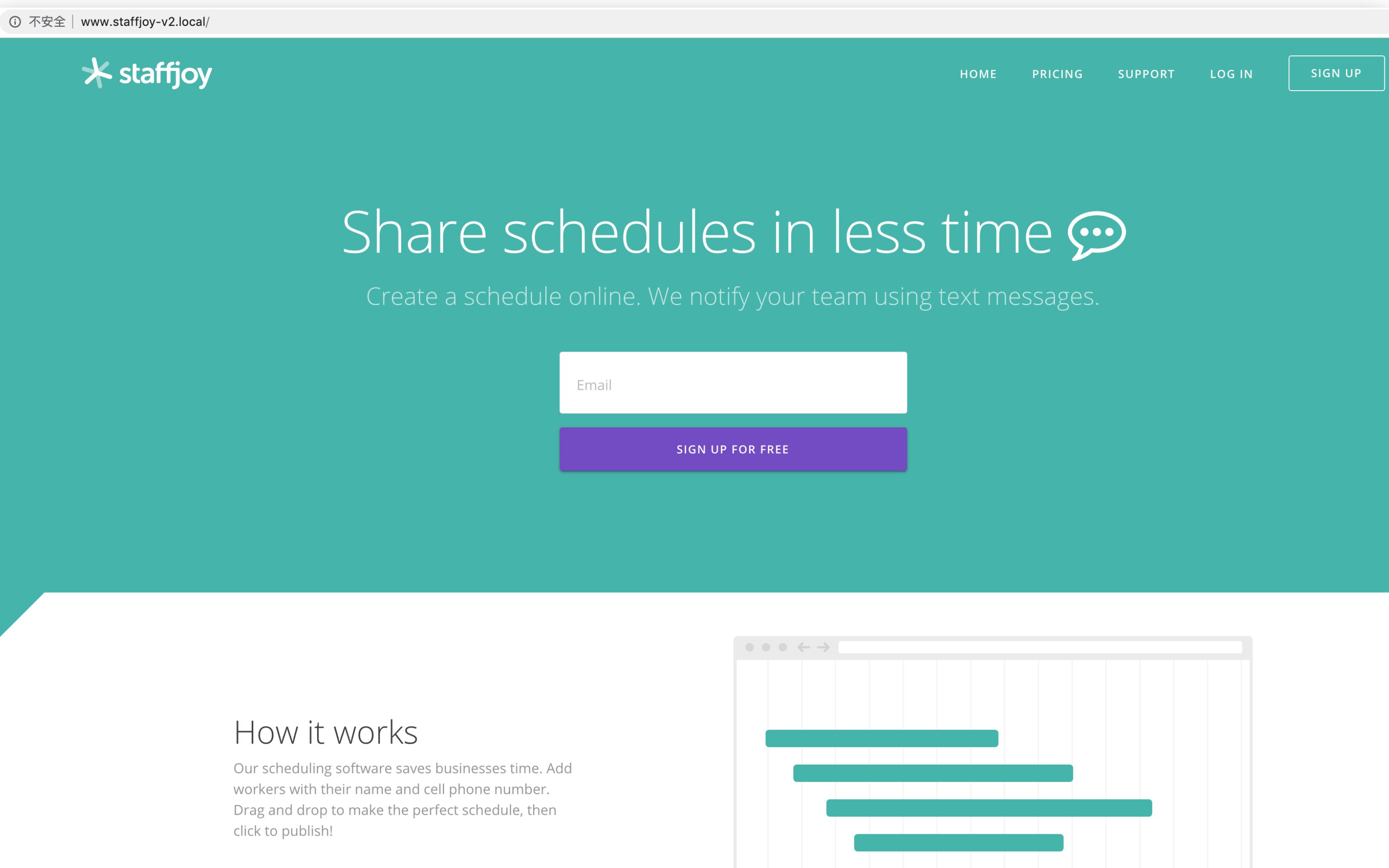


2. 非功能

- SaaS + 定制部署
- 一键部署到 Kubernetes 容器云
- 营销和客服友好 (Marketing & Customer Friendly)

首页产品介绍和注册

① 不安全 | www.staffjoy-v2.local/



The screenshot shows the Staffjoy homepage with a teal header. The header includes the Staffjoy logo, navigation links for HOME, PRICING, SUPPORT, LOG IN, and a prominent SIGN UP button. Below the header, a large white section features the tagline "Share schedules in less time" with a speech bubble icon, followed by the subtext "Create a schedule online. We notify your team using text messages." A white input field labeled "Email" and a purple "SIGN UP FOR FREE" button are centered. At the bottom, a white sidebar titled "How it works" contains descriptive text and a small screenshot of a scheduling interface.

① 不安全 | www.staffjoy-v2.local/

 staffjoy

HOME PRICING SUPPORT LOG IN SIGN UP

Share schedules in less time

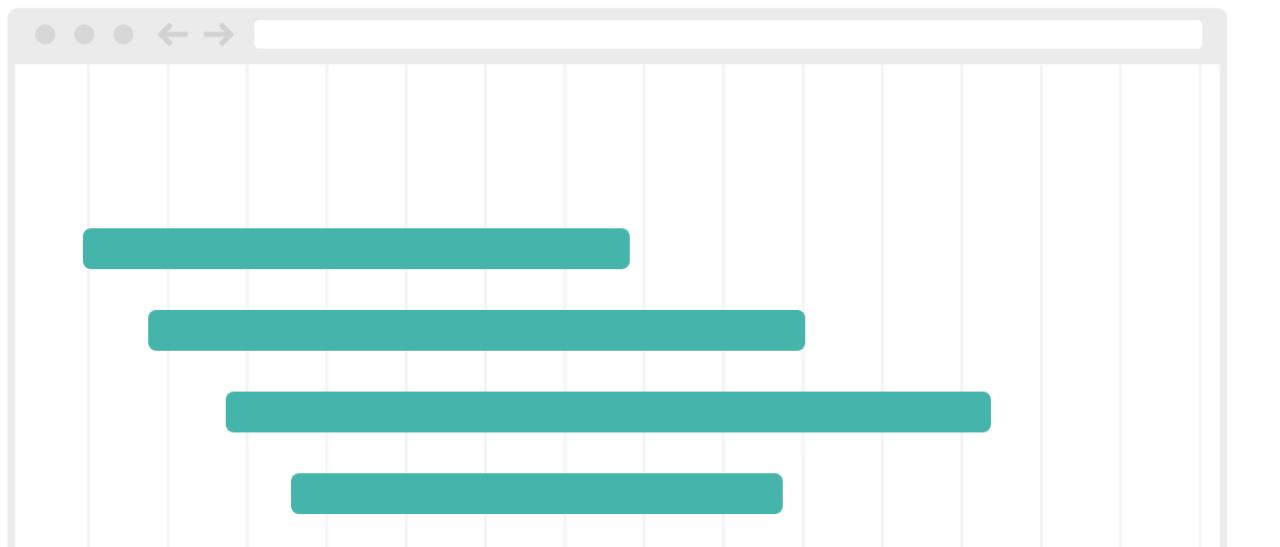
Create a schedule online. We notify your team using text messages.

Email

SIGN UP FOR FREE

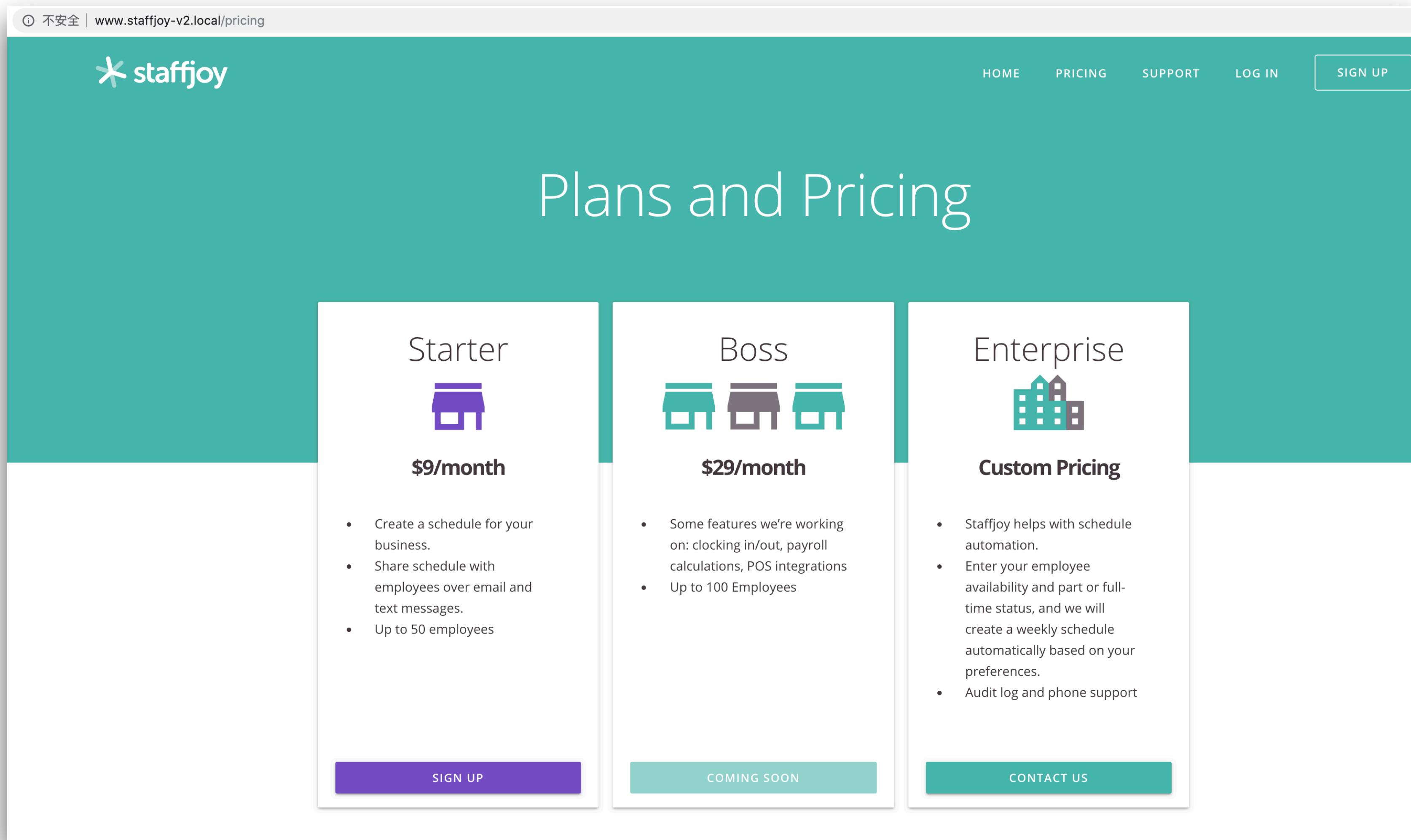
How it works

Our scheduling software saves businesses time. Add workers with their name and cell phone number. Drag and drop to make the perfect schedule, then click to publish!



产品订阅计划和报价

① 不安全 | www.staffjoy-v2.local/pricing



The screenshot shows the Staffjoy pricing page with a teal header and three plan cards: Starter, Boss, and Enterprise.

Plans and Pricing

Plan	Icon	Price	Status	Action
Starter	House icon	\$9/month	Available	SIGN UP
Boss	Three house icons	\$29/month	Coming Soon	COMING SOON
Enterprise	Building icon	Custom Pricing	Custom	CONTACT US

Starter
\$9/month

- Create a schedule for your business.
- Share schedule with employees over email and text messages.
- Up to 50 employees

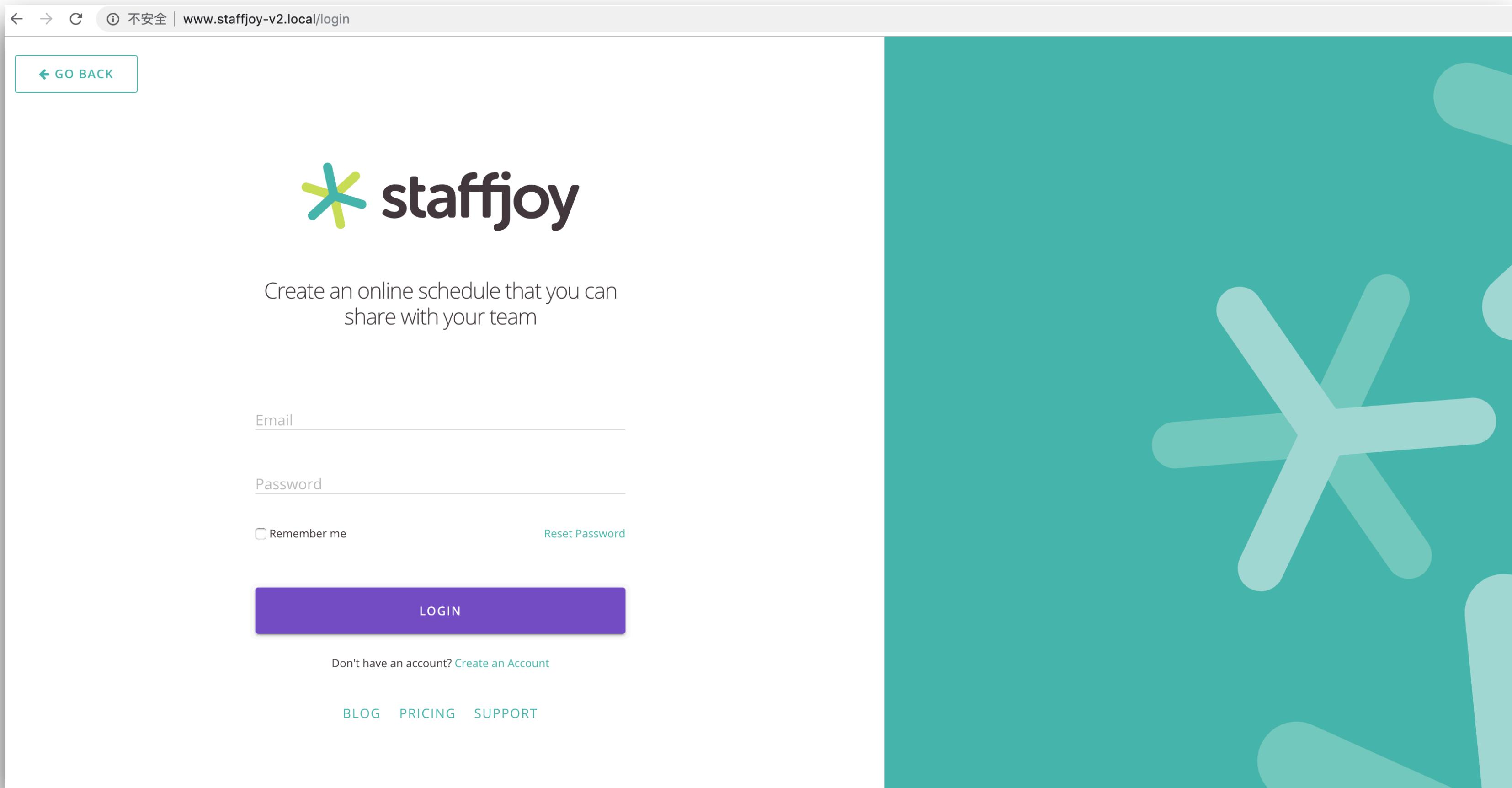
Boss
\$29/month

- Some features we're working on: clocking in/out, payroll calculations, POS integrations
- Up to 100 Employees

Enterprise
Custom Pricing

- Staffjoy helps with schedule automation.
- Enter your employee availability and part or full-time status, and we will create a weekly schedule automatically based on your preferences.
- Audit log and phone support

登录页



The screenshot shows the Staffjoy login page. At the top left is a 'GO BACK' button. The Staffjoy logo, featuring a stylized asterisk icon and the word 'staffjoy' in lowercase, is centered above a tagline: 'Create an online schedule that you can share with your team'. Below the tagline are two input fields: 'Email' and 'Password'. To the right of the 'Email' field is a 'Remember me' checkbox and a 'Reset Password' link. A large purple 'LOGIN' button is positioned below the password field. At the bottom left, there's a link 'Don't have an account? Create an Account'. At the very bottom, there are links for 'BLOG', 'PRICING', and 'SUPPORT'.

MyAccount 雇员账户管理页

ⓘ 不安全 | myaccount.staffjoy-v2.local/



Account

Member Since: May 2019

[LOGOUT](#)

FULL NAME

EMAIL

PHONE NUMBER

[SAVE](#)

Change your password

NEW PASSWORD

CONFIRM PASSWORD

[SAVE](#)

App 管理员排班界面

← → ⏪ ⏩ 不安全 | app.staffjoy-v2.local/#/companies/402881e46b0ce460016b0d1b0cb20005/teams/402881e46b0ce460016b0d1b0d0e0008/scheduling/?_k=f9onxn

 May 27 - Jun 2, 2019 5:36 PM CST EMPLOYEE JOB Search CREATE SHIFT UNPUBLISH WEEK

EMPLOYEES shanghai SCHEDULER SETTINGS

	Mon 5/27	Tue 5/28	Wed 5/29	Thu 5/30	Fri 5/31	Sat 6/1	Sun 6/2
 Unassigned Shifts 0 M							
 bobo 46 HR 45 M	Start: 9:00 am 2 hr End: 11:00 am DESIGN	Start: 8:00 am 3 hr 45 m End: 11:45 am DEVELOP					
	Start: 2:00 am 5 hr 45 m End: 7:45 am DEVELOP	Start: 2:00 am 5 hr 45 m End: 7:45 am DEVELOP	Start: 2:00 am 5 hr 45 m End: 7:45 am DEVELOP	Start: 2:00 am 5 hr 45 m End: 7:45 am DEVELOP	Start: 2:00 am 5 hr 45 m End: 7:45 am DEVELOP	Start: 2:15 pm 4 hr 15 m End: 6:30 pm DEVELOP	
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 bobo jskillcloud							

第 4 部分

课程说明

课程先决条件

1. 主要面向应用开发工程师、DevOps 工程师或架构师

- 熟悉 Java/Spring、Web/HTML/JavaScript 和 MySQL

2. 主要开发工具

1. JDK 8 + Maven

2. IntelliJ IDEA or Eclipse STS

3. MySQL + Workbench

4. Node.js + npm

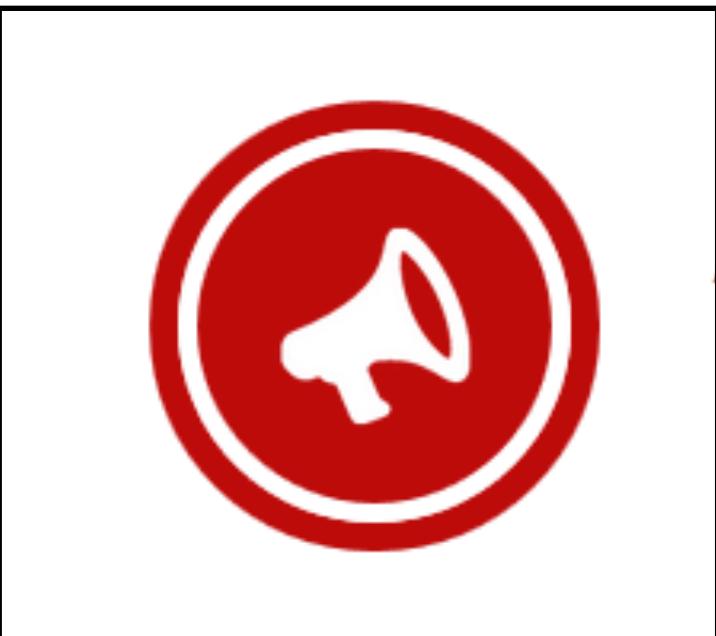
5. Docker



额外说明

1. 课程重点

- 课程目标
- 微服务和云原生架构
- Spring Boot + Kubernetes应用



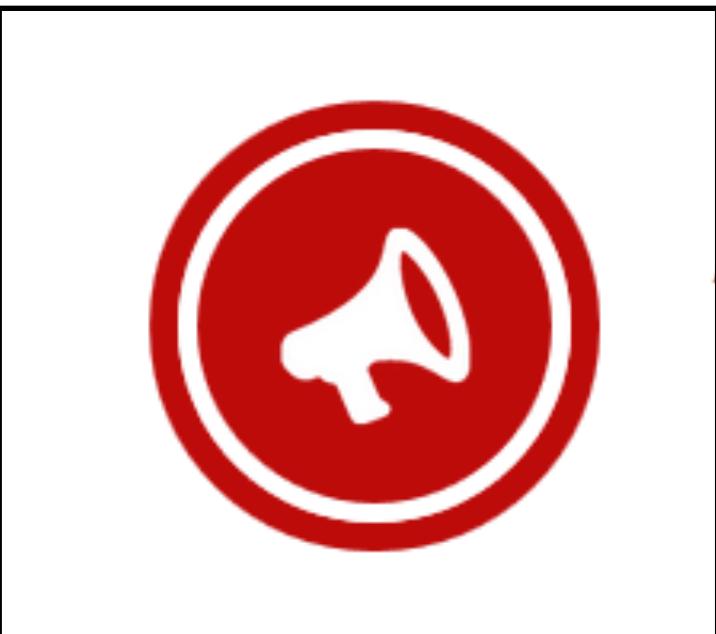
2. 非重点

- 案例本身
- React.js

额外说明

1. 教学版 Staffjoy 改造

- Golang -> Java/Spring
- 去掉 gRPC API Gateway
- 默认采用邮件通知



2. 教学版仅供参考！

3. Lombok 减少编码

Staffjoy 教学版开源地址

<https://github.com/spring2go/staffjoy>

参考链接

1. **微软微服务演示项目** <https://github.com/dotnet-architecture/eShopOnContainers>
2. **谷歌微服务演示项目** <https://github.com/GoogleCloudPlatform/microservices-demo>
3. **PiggyMetrics微服务演示项目** <https://github.com/sqshq/piggymetrics>
4. **PiggyMetrics微服务演示项目改造版** <https://github.com/spring2go/piggymetrics>
5. **Gitee开源项目** <https://gitee.com/explore>
6. **Philip I. Thomas** <https://www.linkedin.com/in/philipithomas/>
7. **Staffjoy Denouement** <https://blog.staffjoy.com/denouement-abe7d26f2de0>
8. **Staffjoy开源项目** <https://github.com/Staffjoy>
9. **Staffjoy V2** <https://github.com/Staffjoy/v2>
10. **Staffjoy课程教学版** <https://github.com/spring2go/staffjoy>
11. **Project Lombok** <https://projectlombok.org/>



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