Coupon Distribution Platform based on Kafka and HBase

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Outline

- Motivation & Goals
- Highlights of the System
- Architecture
- Demo

Motivation & Goals

➔ Online shopping platform serving customers and merchants for coupon distribution

➔ Merchant system creates coupon templates

➔ User system consumes coupons from Kafka

➔ Leveraging Kafka and HBase for scalability

Highlights of the System

➔   Use Kafka as Message Queue Tool to transmit coupon information

➔   Process multiple consumer and merchant requests simultaneously

➔   Validate coupons with token files in Redis
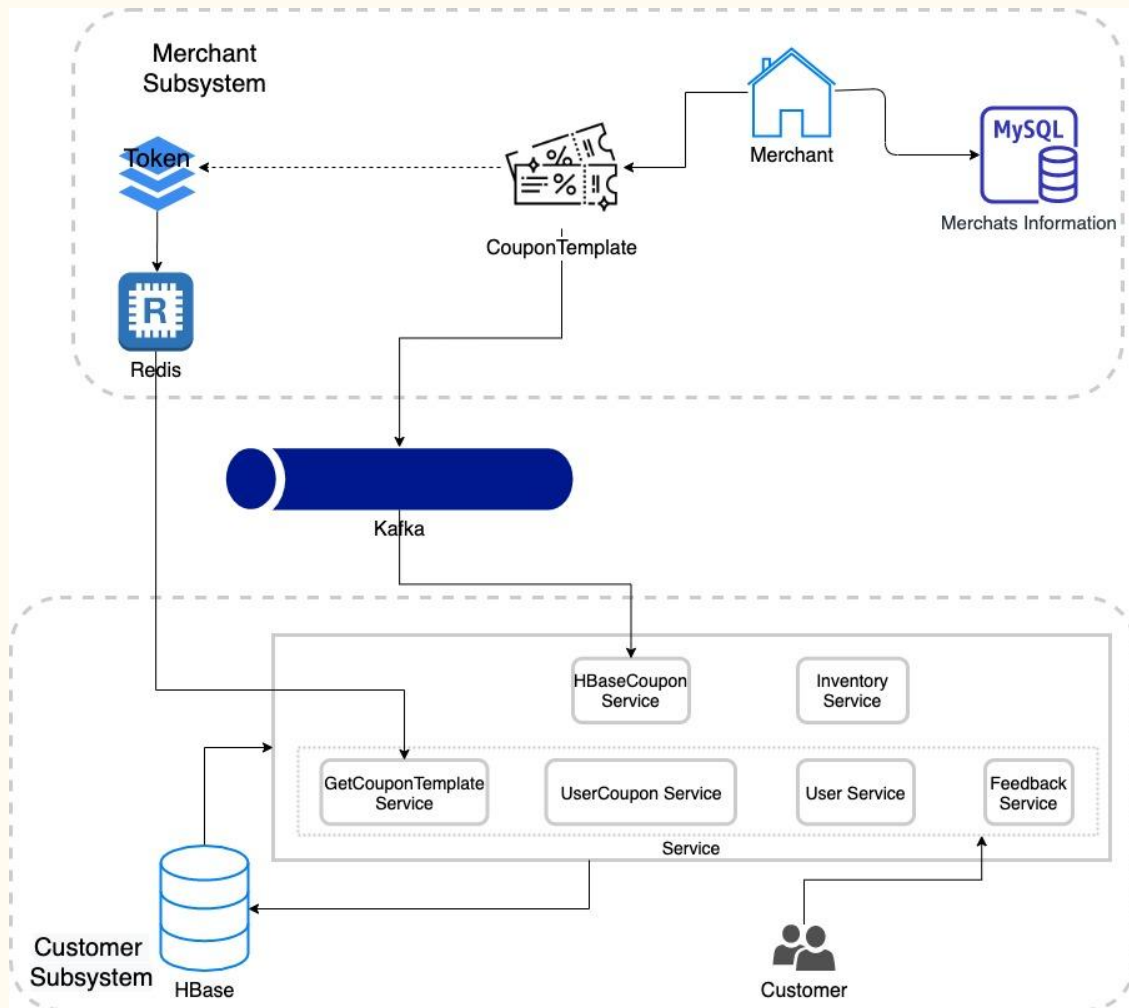
➔   Implement Data Persistence with HBase

Architecture

Merchant Subsystem

- **Generate CouponTemplate and send to Kafka Topic**
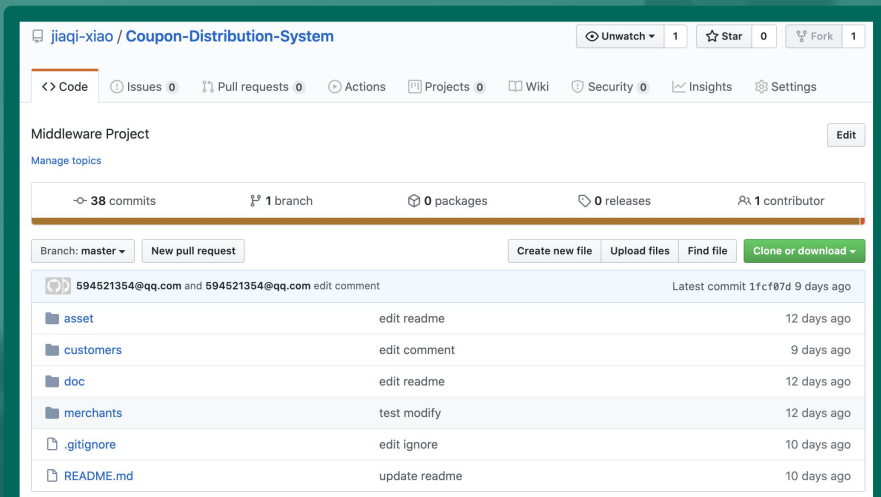- **Load Token files into Redis to speed up verification process**

Customer Subsystem

- **Consume coupons from Kafka**
- **Customers' coupon info stored in HBase**
- **Verify the Token before using coupon**

Demo

-- Code Repo

Merchant

- **Distribute Coupon**
- **Token Upload**

Customer

- **Create Customer**
- **Get Inventory Information**
- **Get new Coupon**
- **Get Customer's Coupon**
- **Use Coupon**

Thank you