

# WARNING

This meeting will contain live coding,  
so everything could (potentially) go wrong.

You will learn what the difference is between REST and Apache Kafka  
and how to create a payment application with consumers / producers /  
streaming API

The pictures used in this talk can be harming for your mental health





**REST IN PEACE**

**Apache Kafka is alive!**



CORBA



A dark, atmospheric scene featuring a solar eclipse with a bright corona, palm trees, and a chain-link fence.

**SOAP**



STYLES



Google

roy fielding



Alle

Nieuws

Afbeeldingen

Video's

Shopping

Meer

Tools



unc charlotte



principal scientist



mint hill



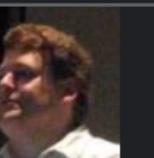
rest



roy thomas fielding



master's degrees



architectural styles



charlotte 49ers



Roy Fielding - Wikipedia  
en.wikipedia.org



Roy T. Fielding (@fielding) | Twi...  
twitter.com



Roy T. Fielding: Understanding the REST Style - Yo...  
youtube.com



File:Roy Fielding.jpg - ...  
commons.wikimedia.org



Mastering REST Architecture – Introductio...  
ahmetozlu93.medium.com



Roy T. Fielding  
ics.uci.edu

# REST

# LET'S EAT SOME CODE



A dark, moody photograph of a woman with long hair, seen from behind, holding a large axe. She is standing in front of a weathered, peeling wall. The scene is lit from above, creating strong shadows and highlights. The overall atmosphere is somber and dramatic.

LESS COMPLEX

A scene from the movie Jurassic Park. A man with a beard and a dark t-shirt is running across a green, hilly landscape. He is being chased by a group of velociraptors. The background shows rolling hills under a clear sky.

IT CAN BE FASTER

GO asynchronous !



# FAULT TOLERANT



# REPLAYABILITY



Go to [www.menti.com](http://www.menti.com) and use the code 3293 2027



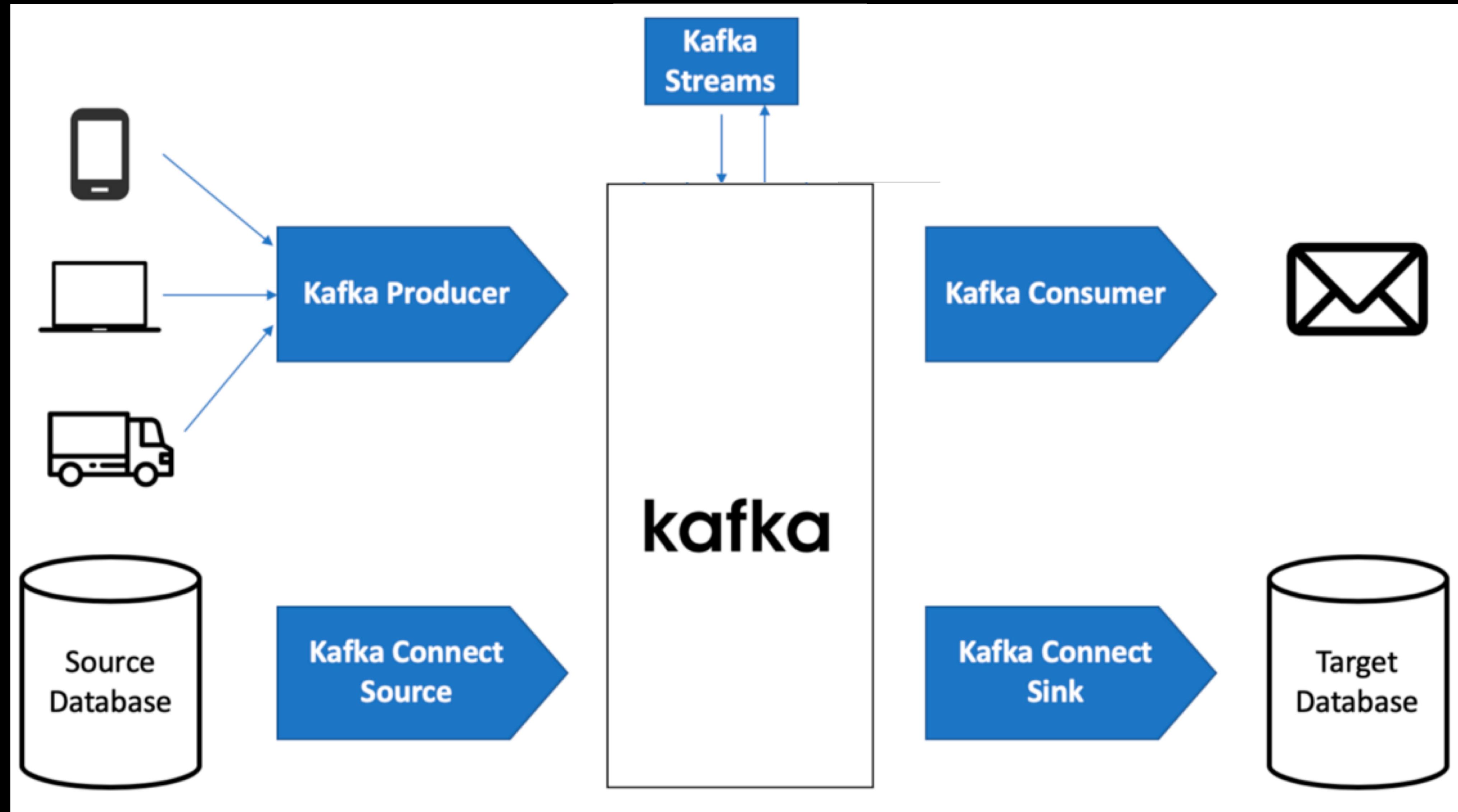
kafka

[HTTPS://LETMEGOOGLETHAT.COM/?](https://letmegooglethat.com/)

O=FRANZKAFKA

A photograph of three clowns standing side-by-side against a dark background. The clown on the left has a multi-colored, spiky hairstyle (yellow, orange, red) and wears a green and yellow ruffled collar. The clown in the center has a red ruffled collar and a white face with blue and black makeup. The clown on the right has a red ruffled collar and a white face with black and red makeup. They are all wearing colorful, patterned clothing.

THREE FLAVOURS



A close-up photograph of a woman's face in profile, looking upwards towards a large, lush green plant. The plant has long, serrated leaves and a prominent, textured flower or seed head. The lighting is dramatic, with strong highlights on her skin and the plant's leaves against a dark background.

WHAT DO YOU NEED

<https://kafka.apache.org/quickstart>



ZOOKEEPER

# PLAFORM VENDORS

**VERSION:** '2'

**SERVICES:**

**ZOOKEEPER:**

**IMAGE:** CONFLUENTINC/CP-ZOOKEEPER-LATEST

**ENVIRONMENT:**

**ZOOKEEPER\_CLIENT\_PORT:** 2181

**ZOOKEEPER\_TICK\_TIME:** 2000

**PORTS:**

- 22181:2181

**KAFKA:**

**IMAGE:** CONFLUENTINC/CP-KAFKA-LATEST

**DEPENDS\_ON:**

- ZOOKEEPER

**PORTS:**

- 9092:9092

**ENVIRONMENT:**

**KAFKA\_BROKER\_ID:** 1

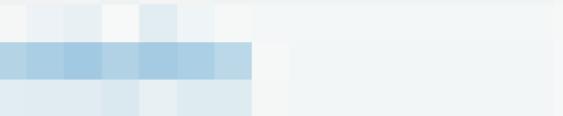
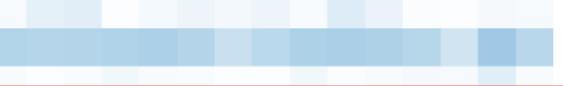
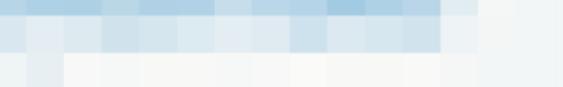
**KAFKA\_ZOOKEEPER\_CONNECT:** ZOOKEEPER:2181

**KAFKA\_ADVERTISED\_LISTENERS:** PLAINTEXT://KAFKA:29092,PLAINTEXT\_HOST://LOCALHOST:9092

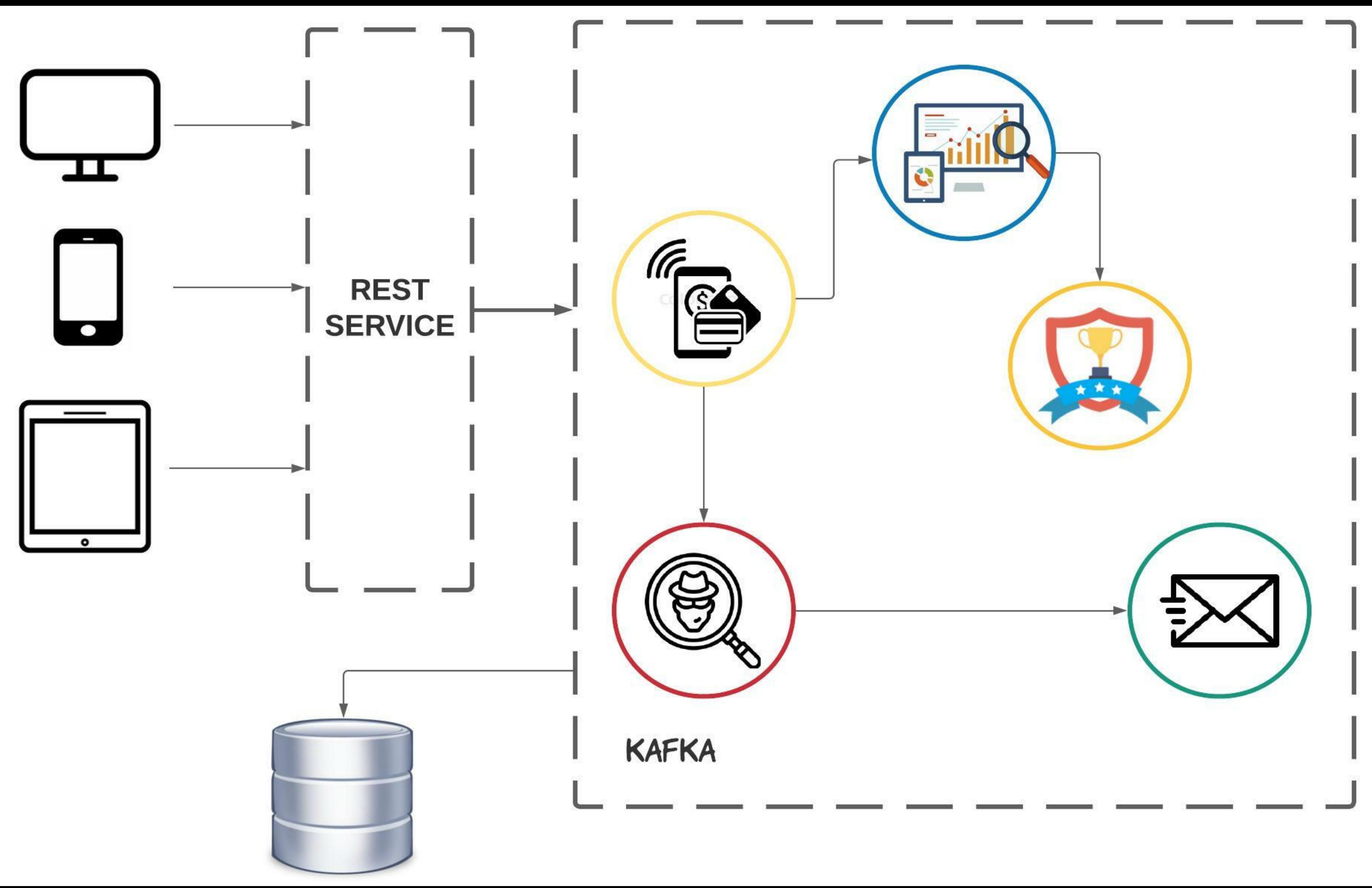
**KAFKA\_LISTENER\_SECURITY\_PROTOCOL\_MAP:** PLAINTEXT:PLAINTEXT,PLAINTEXT\_HOST:PLAINTEXT

**KAFKA\_INTER\_BROKER\_LISTENER\_NAME:** PLAINTEXT

**KAFKA\_OFFSETS\_TOPIC\_REPLICATION\_FACTOR:** 1

Examples	API reference	GitHub
C/C++ Client	C/C++	
Go Client	Go	
Java Client	Java	 <a href="#">apache-kafka-java</a>
.NET Client	.NET	 
Python Client	Python	 

# IMPLEMENTATIONS





LIVE CODING



```
asyncapi: 2.1.0
info:
  title: Account Service
  version: 1.0.0
  description: This service is in charge of processing user
signups :rocket:
channels:
  user/signup:
    subscribe:
      message:
        $ref: '#/components/messages/UserSignedUp'
components:
  messages:
    UserSignedUp:
      payload:
        type: object
      properties:
        displayName:
          type: string
          description: Name of the user
        email:
          type: string
          format: email
          description: Email of the user
```

# DOCUMENTATION

[HTTPS://WEB.MICROSOFTSTREAM.COM/VIDEO/7A86F504-58D5-4457-9186-0FC65498302E](https://web.microsoftstream.com/video/7A86F504-58D5-4457-9186-0FC65498302E)



# MONITORING

# When to use REST

simple

request/response

http

synchronous

public api

# When to use Apache Kafka

big data

async

scalable

replayability

fault tolerance

So what to do next?

Check what can be async

Download / Connect to Kafka

Create your Spring Boot  
application

A close-up photograph of a woman with long, dark, wavy hair. She is looking slightly downwards and to her left with a somber, contemplative expression. Her eyes are partially closed, and her mouth is a simple black outline. The lighting is dramatic, with strong highlights on her forehead and hair against a dark background.

**THANK YOU  
FOR YOUR TIME**