

WELCOME...
THANKS FOR JOINING THE TEMPORAL NYC MEETUP!



MULTI-REGION AVAILABILITY HAS COME TO TEMPORAL.CLOUD

Run thousands of actions per second
across regions without breaking sweat.



LEARN

Self-paced online courses that provide in-depth hands-on learning experiences.

- Temporal 101
- Temporal 102
- Intro to Temporal Cloud

<https://learn.temporal.io/courses>



The screenshot shows a web browser window titled "LEARN Temporal" with the URL <https://www.temporal.io/learn>. The page is a course listing for "Temporal 101".

The left sidebar has a navigation menu:

- Home
- Get started with Temporal
- Courses
- Introduction to Temporal Cloud
- Temporal 101
- Temporal 101 with Go
- Temporal 101 with Java
- Temporal 101 with TypeScript
- Temporal 101 with Python
- Temporal 102
- Project-based tutorials
- Example applications

The main content area shows the "Temporal 101" course details:

Temporal 101

Last updated on Feb 17, 2023

In this course, you will explore the basic building blocks of Temporal: Workflows and Activities. You'll use these building blocks along with Temporal's Go SDK to develop a small application that communicates with an external service. You'll see how Temporal helps you recover from failures and explore Temporal's execution model and event history. You'll use the Temporal Web UI and Temporal's command-line tools to explore and interact with your Workflows, and you'll use what you've learned to add new features to your existing Workflow.

When you've completed the course, you'll be able to:

- Configure an environment for developing Temporal Applications
- Use Temporal to describe and implement a business process
- Interpret Temporal's Workflow execution model
- Use Temporal's tooling to manage the lifecycle of your application

Four course modules are listed:

- Temporal 101 with Go**: Discover the essentials of Temporal application development in this course. ...
- Temporal 101 with Java**: Temporal Java SDK
- Temporal 101 with TypeScript**: Discover the essentials of Temporal application development in this course. ...
- Temporal 101 with Python**: Discover the essentials of Temporal application development in this course. ...

Tags: courses

Last updated on Feb 17, 2023

Navigation links at the bottom:

Previous [Introduction to Temporal Cloud](#)

Next [Temporal 101 with Go »](#)



REPLAY

Last month, we gathered Temporal experts from around the world to share best practices and how-to's.

You can check out **ALL** the videos at the Replay site:

<https://temporal.io/replay/videos>



The screenshot shows the Temporal Replay website. At the top, there is a navigation bar with links to "How it Works", "Docs", "Learn", "Cloud", "Pricing", "Blog", "Use Cases", "Replay", "Log in", and "Sign Up for Cloud". The main header features the word "Replay" in large, bold letters. Below the header, there is a grid of six video thumbnails, each representing a different session from the Replay 2023 conference. The sessions include:

- Keynote: The way forward for event-driven architectures** by Maxim Fateev (Temporal)
- Attitude of Iteration: Counting your challenges on one finger** by Eric Johnson (AWS)
- Keynote: Product Announcements** by Samar Abbas and Preeti Somal (Temporal)
- Orchestrating complex customer-defined DAGs with Temporal** by Roberto Fernandez (Retool)
- Temporal at Yum! Brands: a year later** by Matt McDole (Yum! Brands)
- From Monolith to Workflows: Our journey at Twilio** by Sai Pragna Etikyala (Twilio)



AGENDA

01:

WELCOME

LOREN SANDS-RAMSHAW - TEMPORAL

02:

DURABLE EXECUTION FOR EVENT DRIVEN ARCHITECTURES

MAXIM FATEEV, CEO - TEMPORAL

03:

WORKFLOWS PRODUCT

ALLEN GEORGE - DATADOG

04:

PANEL: WORKFLOWS EVERYWHERE

MAXIM FATEEV - TEMPORAL, LENNY BLUM - JP MORGAN CHASE, ALLEN GEORGE - DATADOG



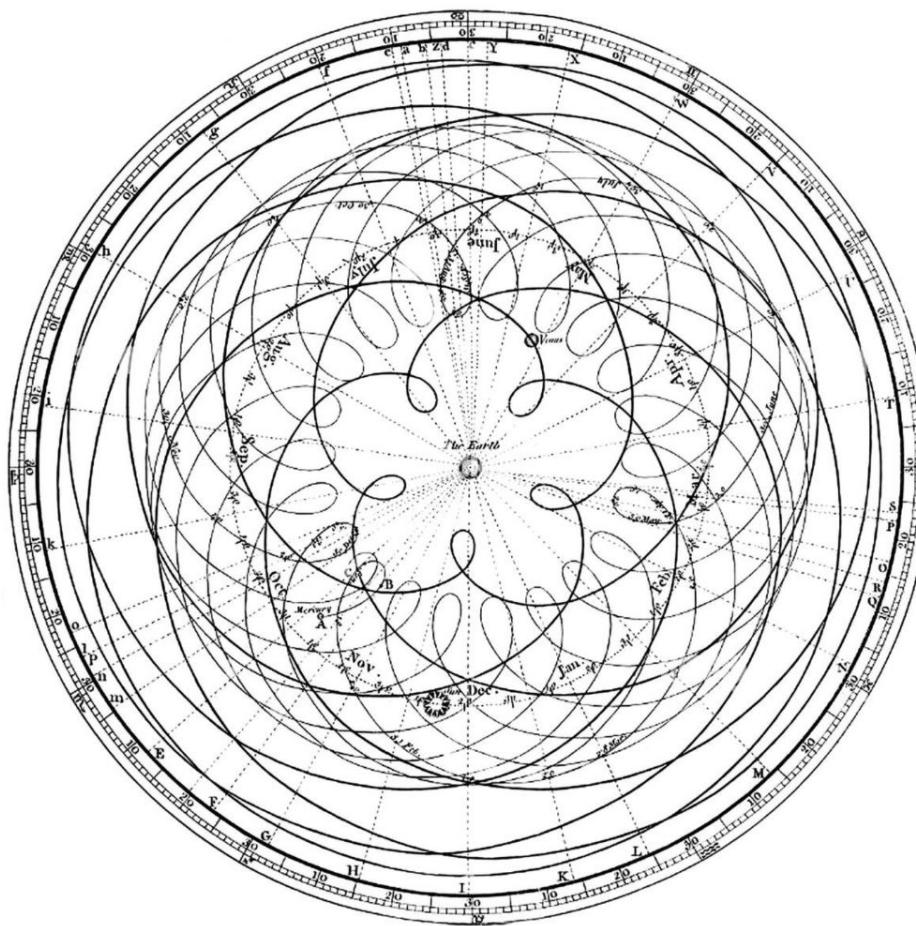
DURABLE EXECUTION

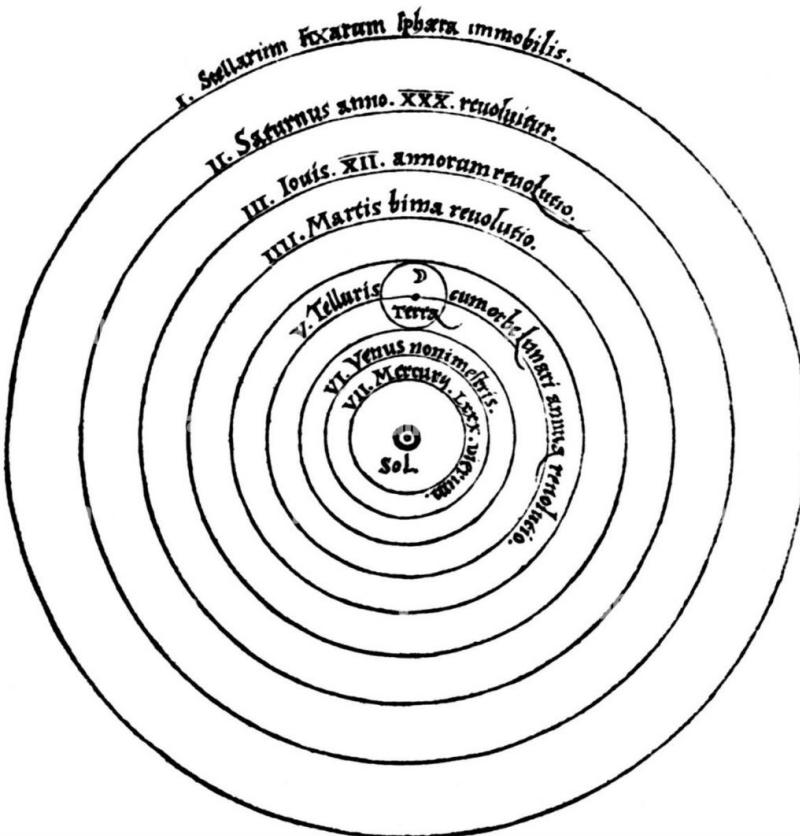
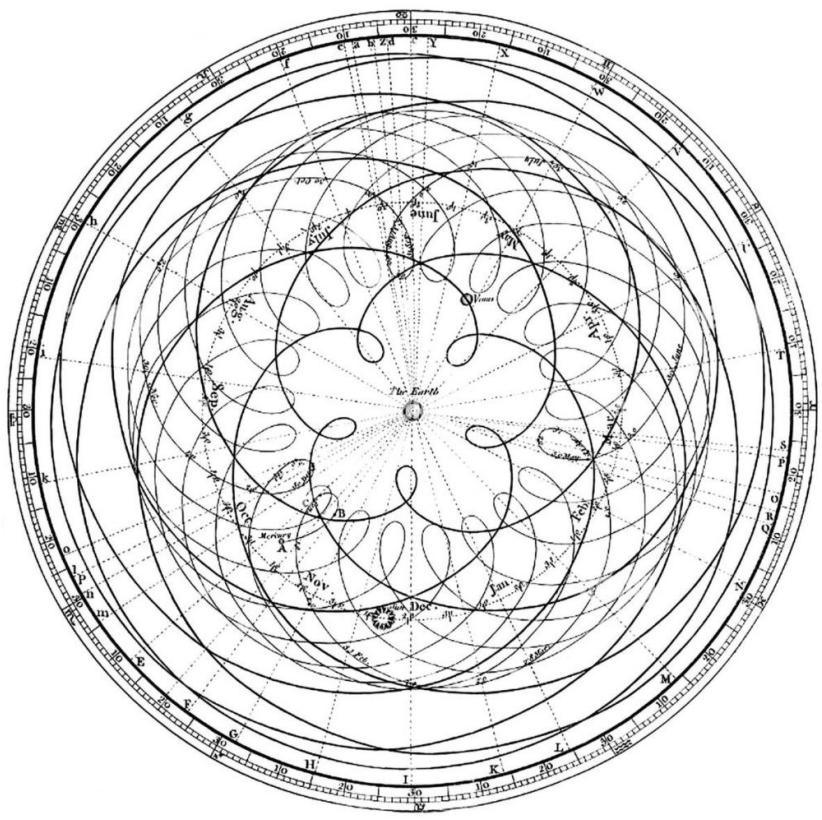
The way forward for
event-driven architecture

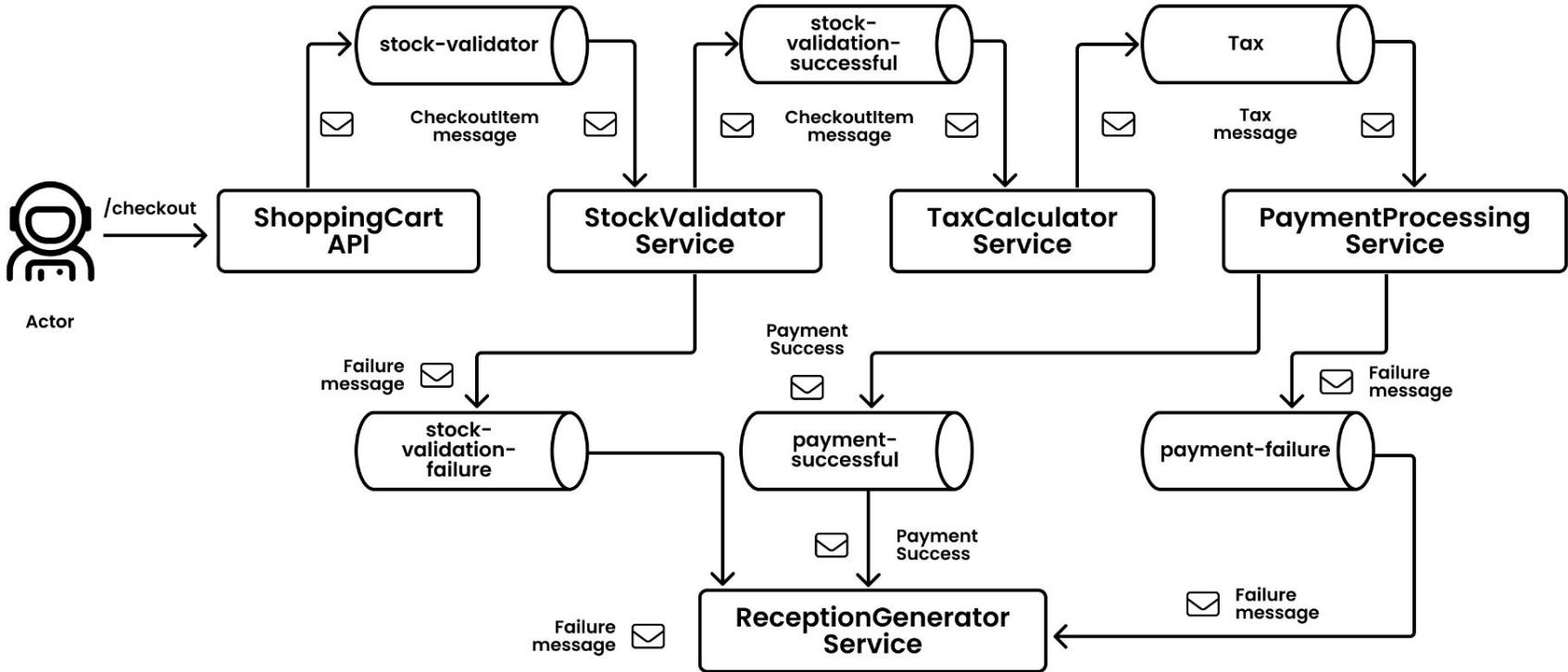
MAXIM FATEEV
CEO, TEMPORAL

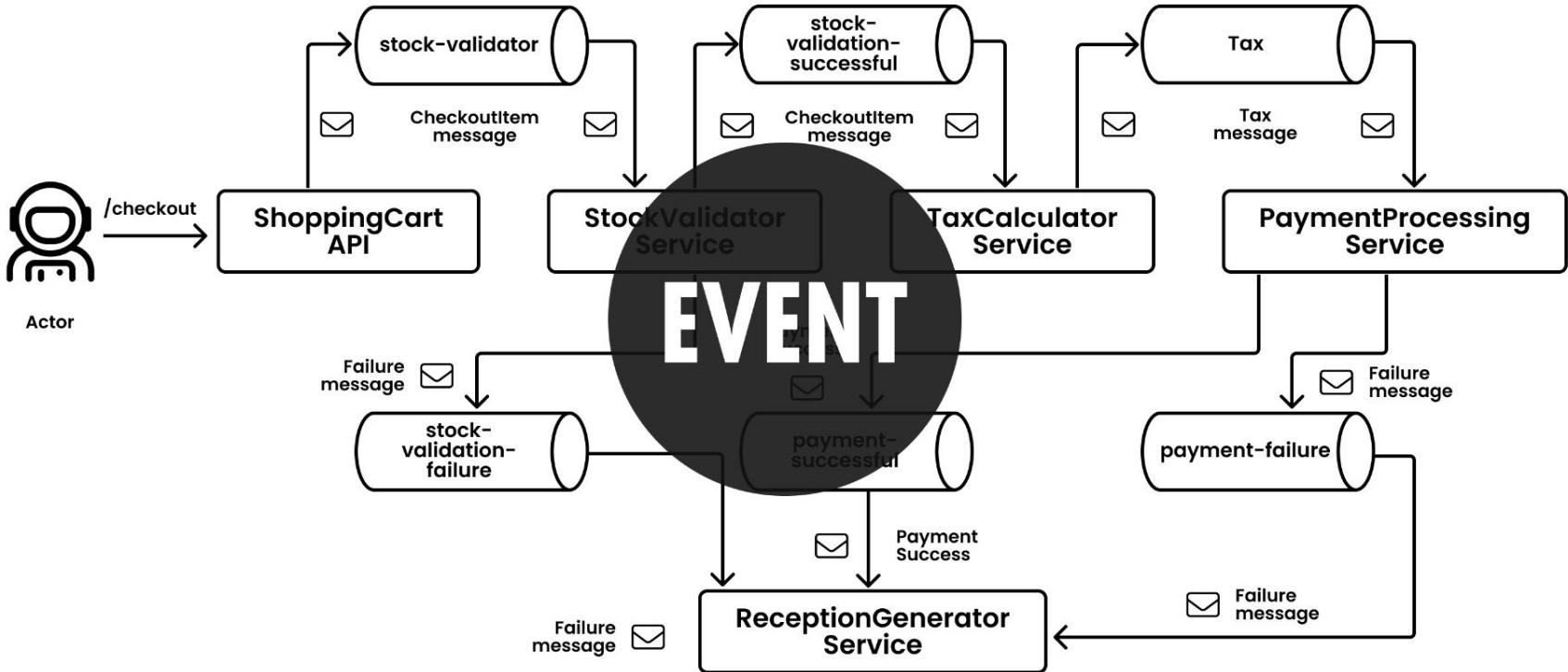


 Temporal

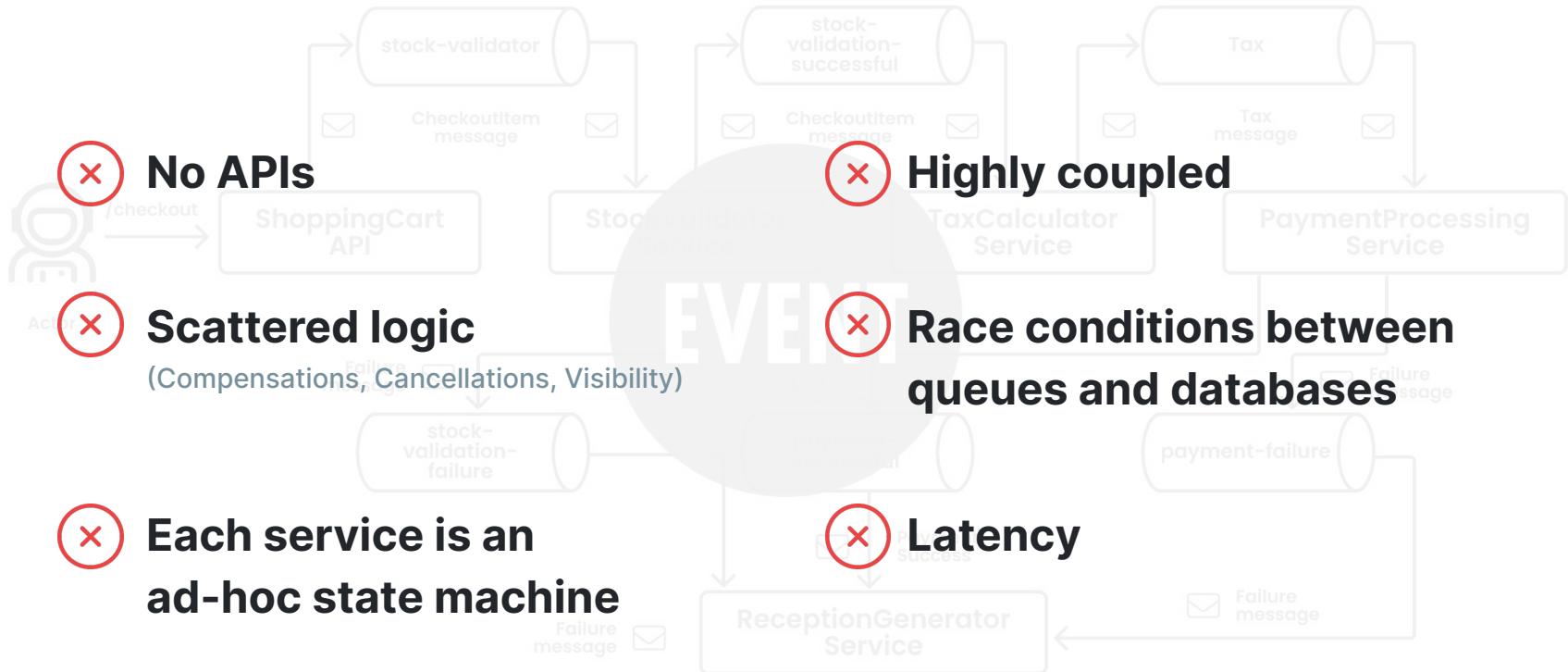




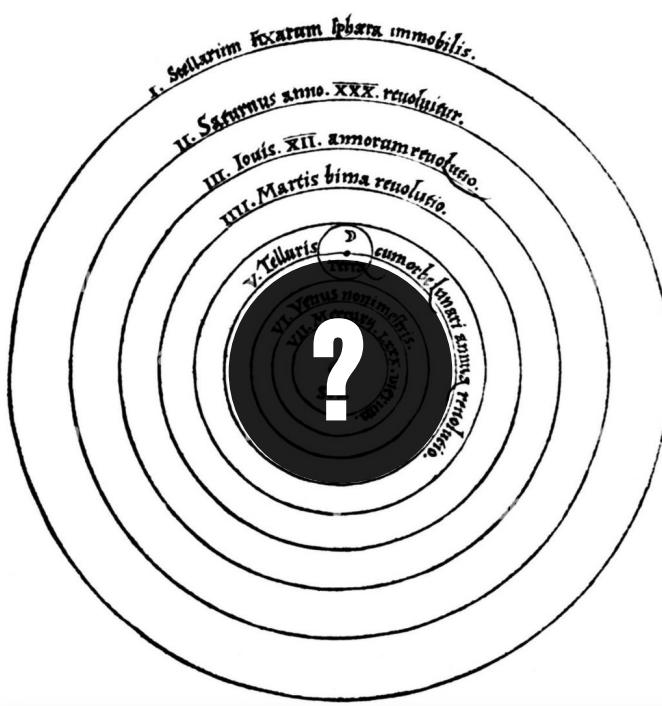
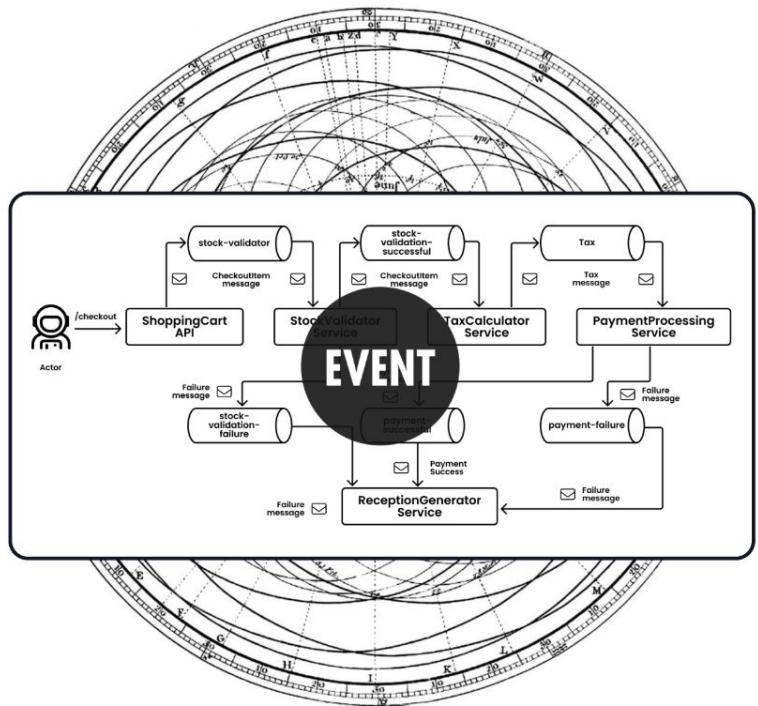




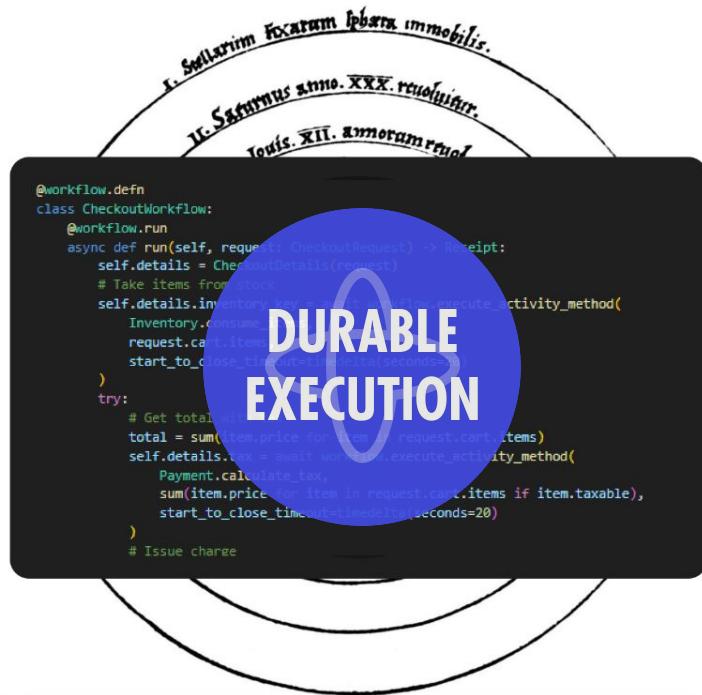
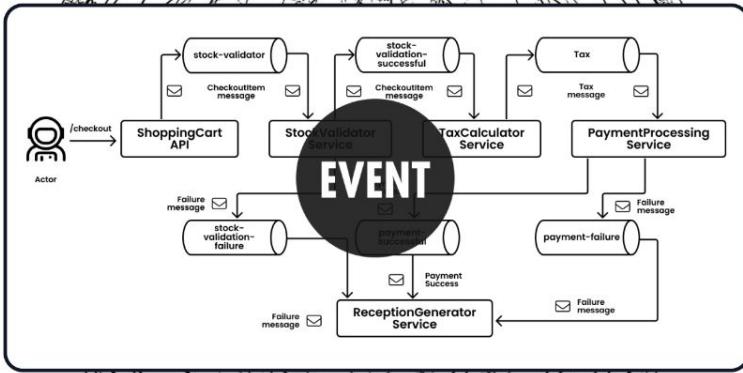
EVENT-DRIVEN ARCHITECTURE



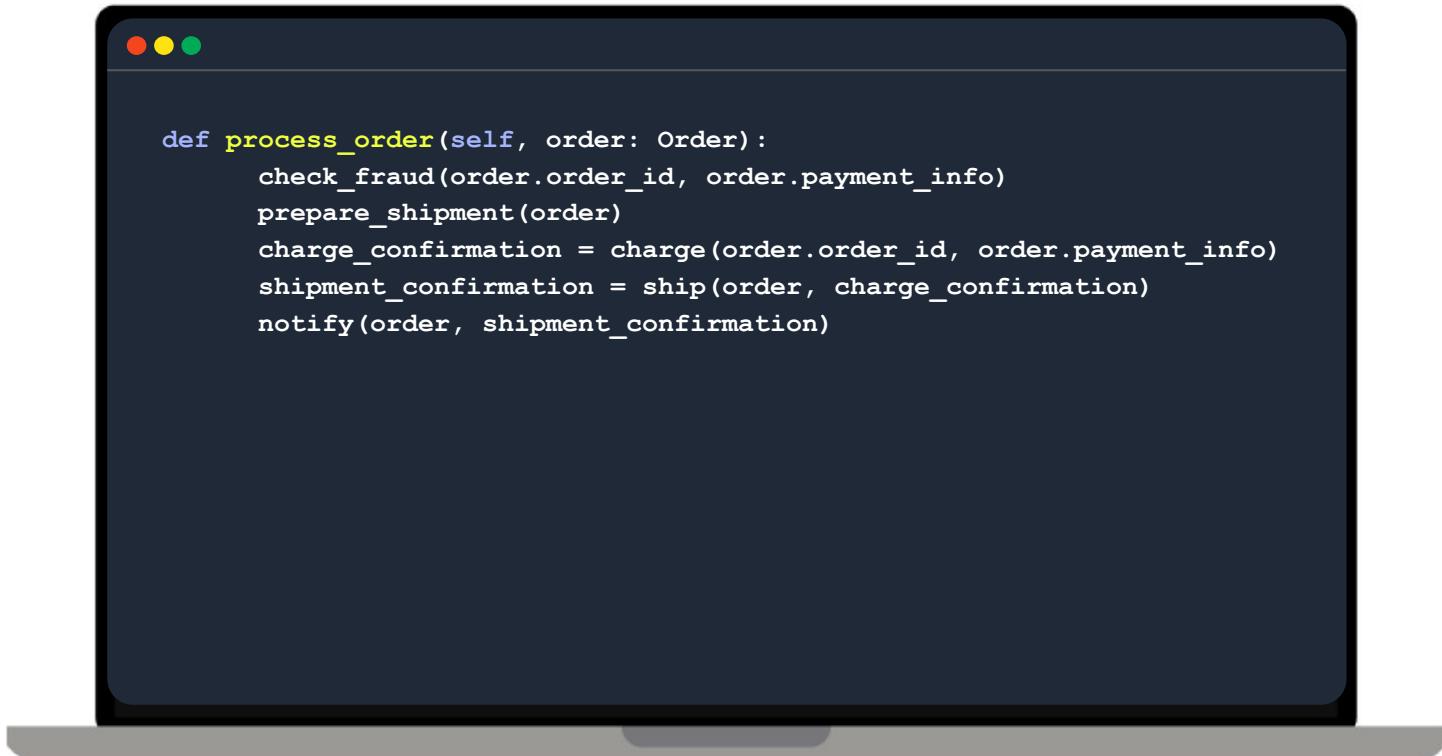
EVOLVE YOUR WAY OF THINKING



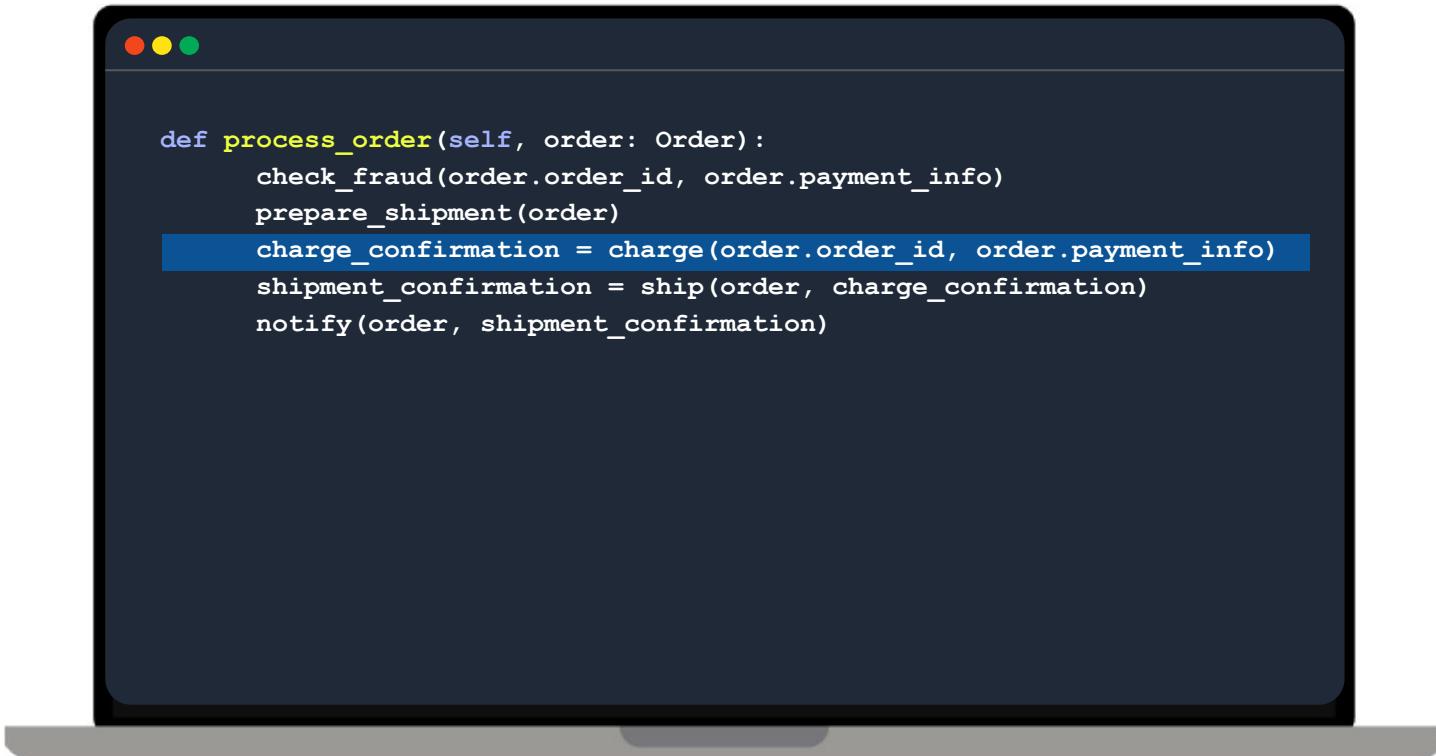
EVOLVE YOUR WAY OF THINKING



DURABLE EXECUTION



DURABLE EXECUTION



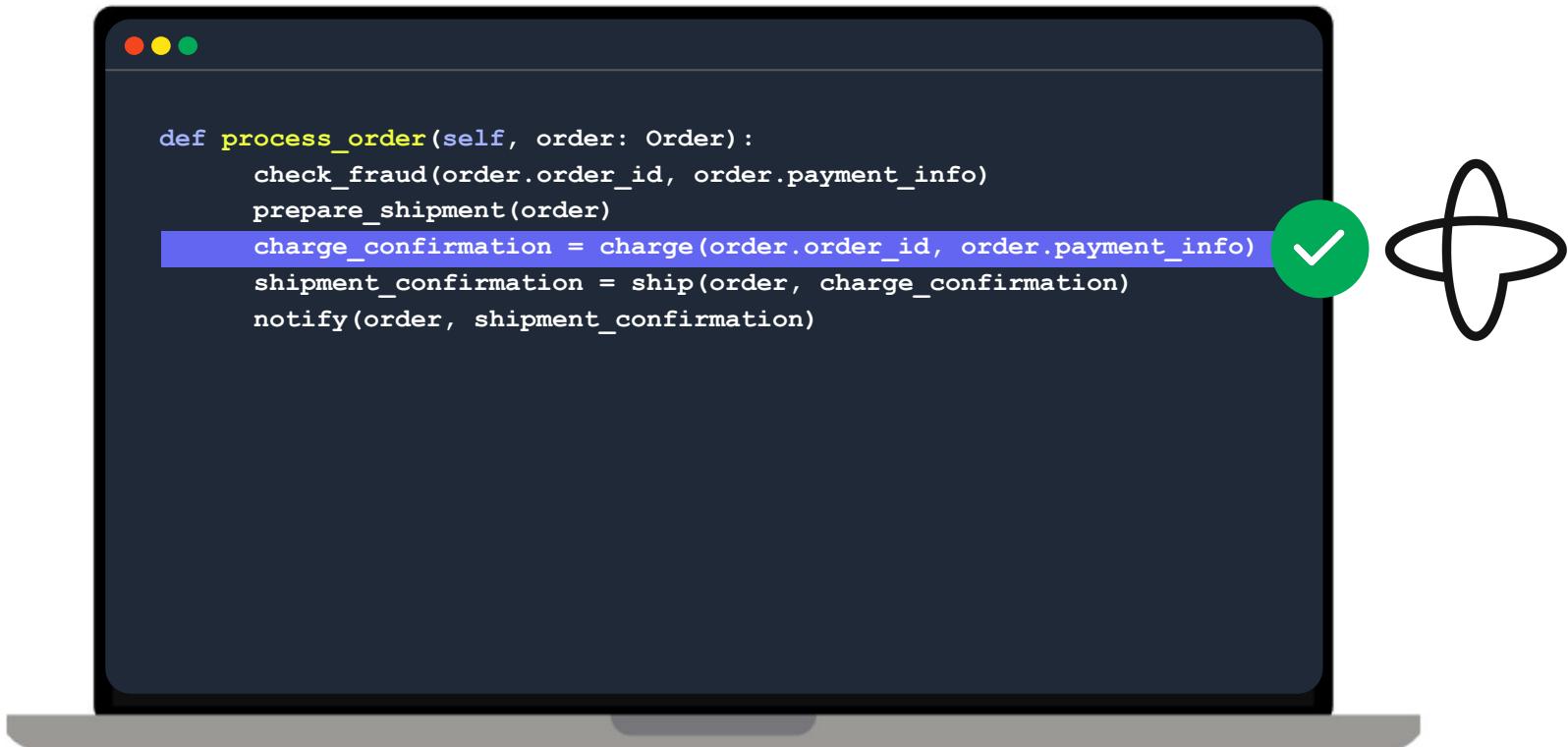
A laptop screen displays a dark-themed code editor window. The window has three circular icons in the top-left corner (red, yellow, green). The code shown is a Python function named `process_order` that takes an `Order` object as an argument. The function performs several steps: it checks for fraud, prepares the shipment, charges the payment, ships the order, and finally notifies the customer. The line `charge_confirmation = charge(order.order_id, order.payment_info)` is highlighted with a blue rectangular background.

```
def process_order(self, order: Order):
    check_fraud(order.order_id, order.payment_info)
    prepare_shipment(order)
    charge_confirmation = charge(order.order_id, order.payment_info)
    shipment_confirmation = ship(order, charge_confirmation)
    notify(order, shipment_confirmation)
```

DURABLE EXECUTION



DURABLE EXECUTION

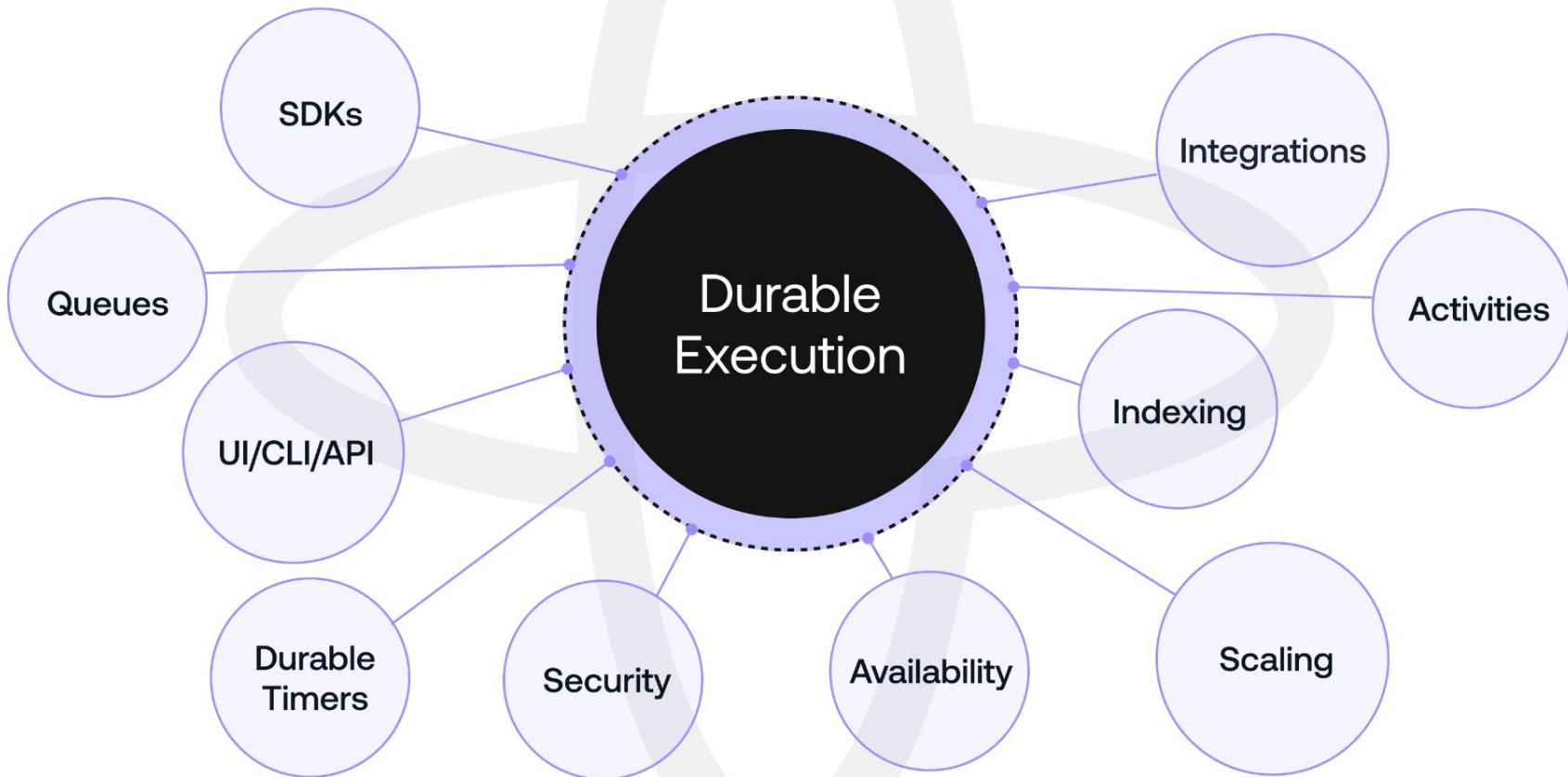


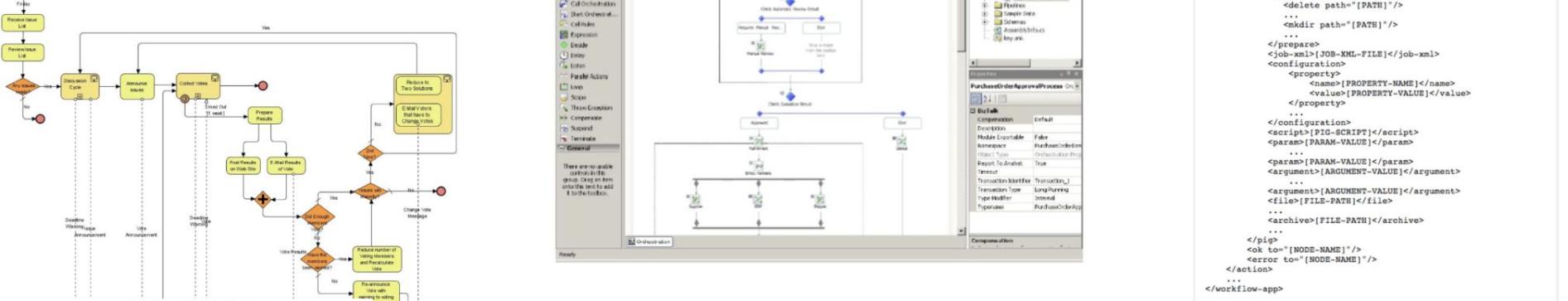


Temporal delivers event-driven architecture
with **Durable Execution**, making it a

**FUNDAMENTALLY BETTER
DEVELOPER EXPERIENCE.**

TEMPORAL





A WORD ABOUT WORKFLOWS

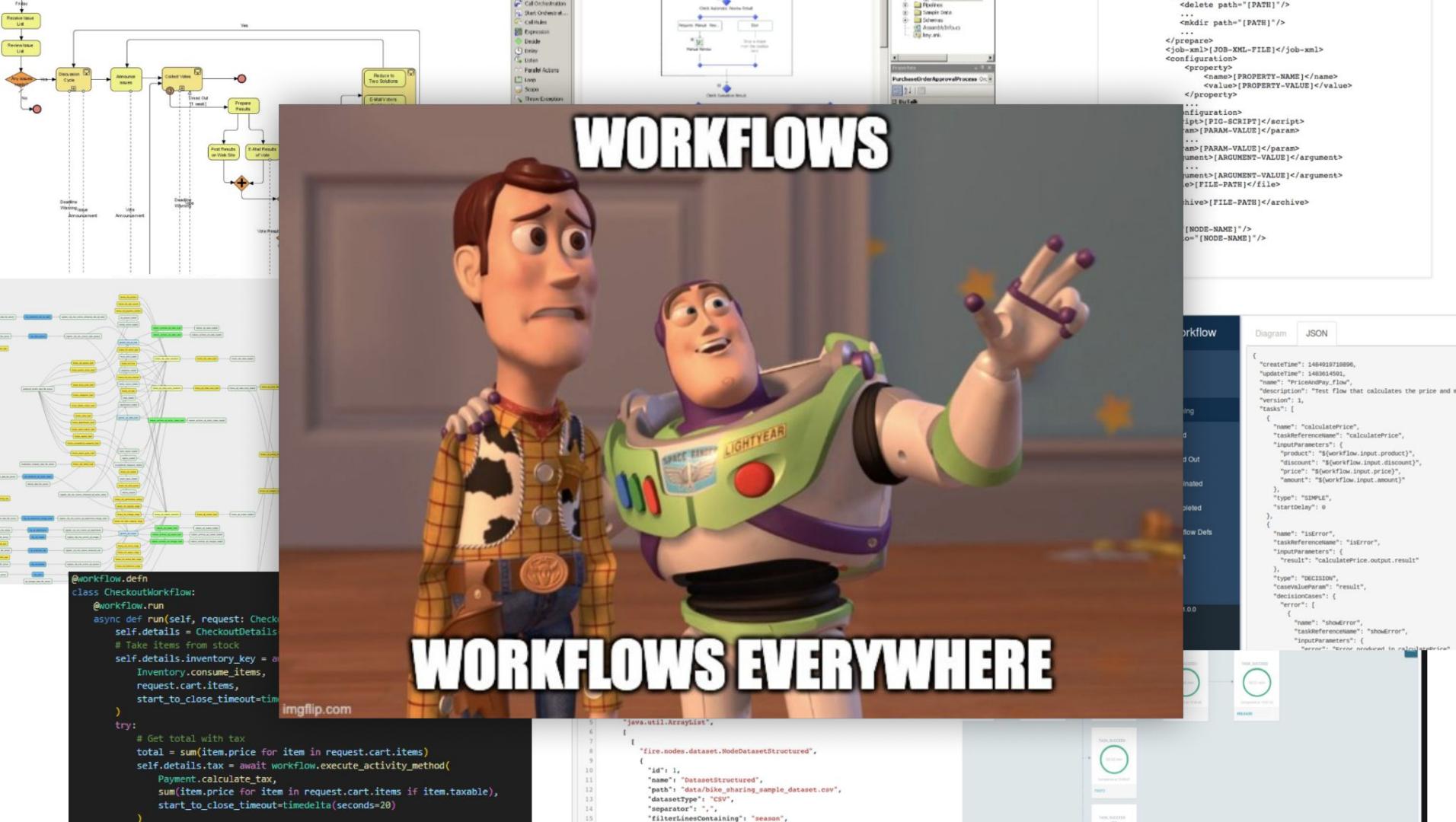
View JSON Workflow

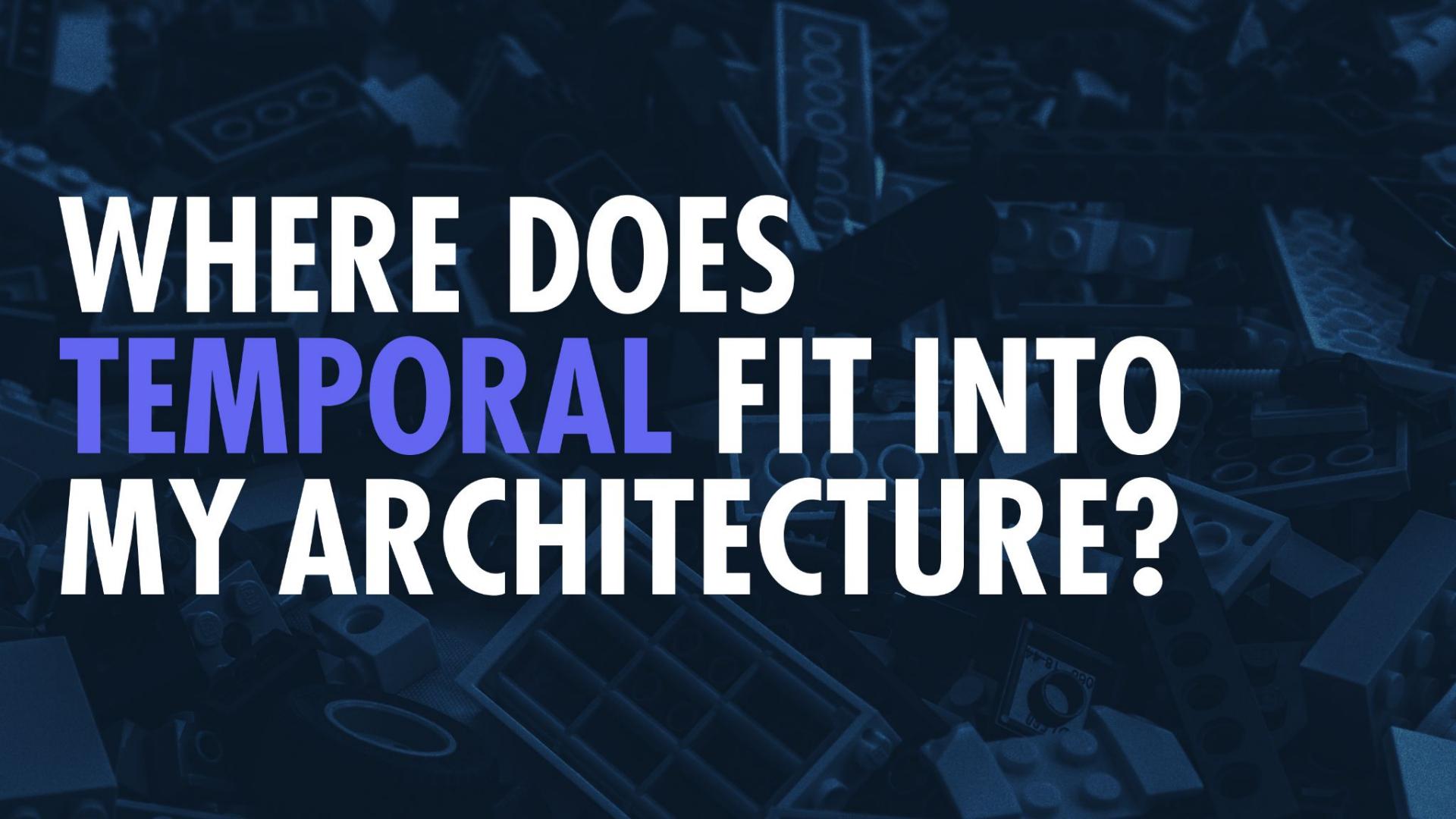
The interface displays:

- Workflow Dets**: A sidebar with filters for 'All', 'Running', 'Failed', 'Timed Out', 'Terminated', and 'Completed'.
- Tasks**: A list of tasks with a progress bar at 1.00.
- JSON Workflow**: A code editor showing the JSON definition of the workflow, which includes a 'flowApproval' step and a 'JOE SUMMARY' section.
- Graphical Flowchart**: A visual representation of the workflow steps and their transitions.

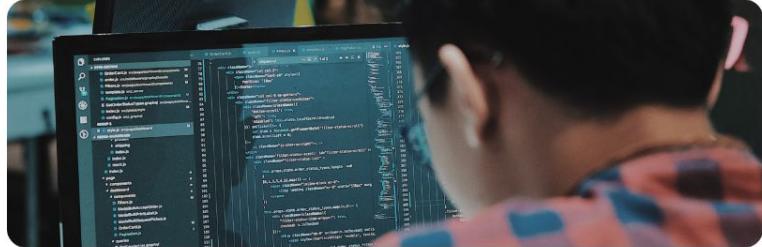
```

{
  "name": "flowApproval",
  "taskReferenceName": "flowApproval",
  "inputParameters": {
    "product": "$workflow.input.product",
    "discount": "$workflow.input.discount",
    "price": "$workflow.input.price",
    "amount": "$workflow.input.amount"
  },
  "type": "SIMPLE",
  "startDelay": 0
},
{
  "name": "isError",
  "taskReferenceName": "isError",
  "inputParameters": {
    "result": "calculatePrice.output.result"
  },
  "type": "DECISION",
  "caseValueParam": "result",
  "decisionCases": [
    {
      "name": "showError",
      "taskReferenceName": "showError",
      "inputParameters": {
        "error": "Error produced in calculatePrice"
      }
    }
  ]
}
  
```





WHERE DOES TEMPORAL FIT INTO MY ARCHITECTURE?



NOT A MATCH

Hobbies	Inconsistency
	Falling requests to the caller
Likes	Losing data
	Not completing tasks



NOT A MATCH

Hobbies	Log/event shipping
Likes	Stream analytics



LOVE CONNECTION!

Hobbies State management

Guaranteed completion,
compensations AND
uniqueness!

Likes Long running operations
Humans in the loop!!
Lifecycle <3

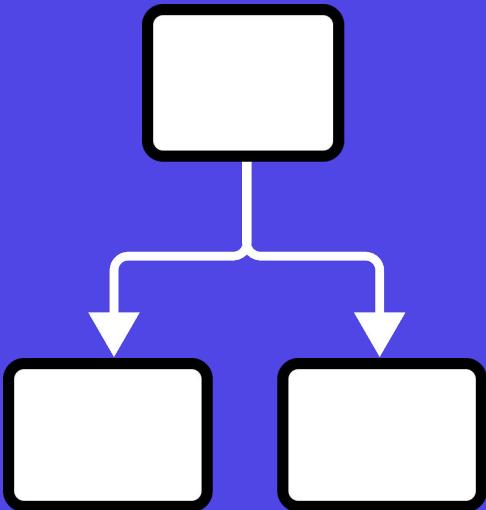
HOW DO I DESIGN MY APP?



LOGICAL DESIGN

The image features a large, bold, white sans-serif font text "CAL GN" centered in the upper left. The background is a dark, semi-transparent overlay of a terminal window displaying code. The code includes various HTML-like structures such as `<div>`, `<input>`, and `<label>` tags, along with some CSS classes like `.form-control` and `.form-group`. The terminal window also shows line numbers from 1 to 42 on the left side.

SEQUENCING ACTIVITIES



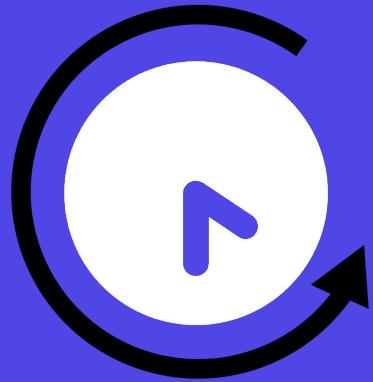
UPDATES SIGNALS



STATIC VS DYNAMIC



PERIODIC



ENTITY



PHYSICAL DESIGN

```
1<?xml version="1.0" encoding="UTF-8"?>
2<configuration>
3    <!-- Configuration for the physical layer -->
4    <physical>
5        <!-- Define the physical interface -->
6        <interface name="eth0" type="ethernet">
7            <!-- Set the link layer address -->
8            <link-layer-address value="00:0C:29:1A:01:02"/>
9            <!-- Set the MAC address -->
10           <mac-address value="00:0C:29:1A:01:02"/>
11           <!-- Set the MTU -->
12           <mtu value="1500"/>
13           <!-- Set the duplex mode -->
14           <duplex value="full"/>
15           <!-- Set the speed -->
16           <speed value="1000Mbps"/>
17           <!-- Set the flow control -->
18           <flow-control value="auto"/>
19           <!-- Set the queueing discipline -->
20           <queue-disc value="pfifo_fast"/>
21       </interface>
22       <!-- Define the physical connection -->
23       <connection name="conn0">
24           <!-- Set the source and destination interfaces -->
25           <source interface="eth0"/>
26           <destination interface="eth1"/>
27       </connection>
28   </physical>
29   <!-- Configuration for the logical layer -->
30   <logical>
31       <!-- Define the logical interface -->
32       <interface name="lo" type="loopback">
33           <!-- Set the link layer address -->
34           <link-layer-address value="00:0C:29:1A:01:01"/>
35           <!-- Set the MAC address -->
36           <mac-address value="00:0C:29:1A:01:01"/>
37           <!-- Set the MTU -->
38           <mtu value="1500"/>
39           <!-- Set the duplex mode -->
40           <duplex value="full"/>
41           <!-- Set the speed -->
42           <speed value="1000Mbps"/>
43           <!-- Set the flow control -->
44           <flow-control value="auto"/>
45           <!-- Set the queueing discipline -->
46           <queue-disc value="pfifo_fast"/>
47       </interface>
48   </logical>
49</configuration>
```

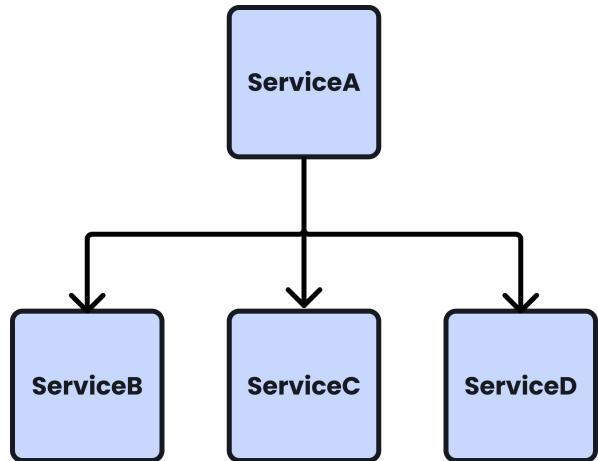
APPLICATION PATTERN

MONOLITH



APPLICATION PATTERN

SYNCHRONOUS SERVICE ORCHESTRATION



REPLAY TALK REC

Payments
Talks!

SOFI

JP MORGAN CHASE

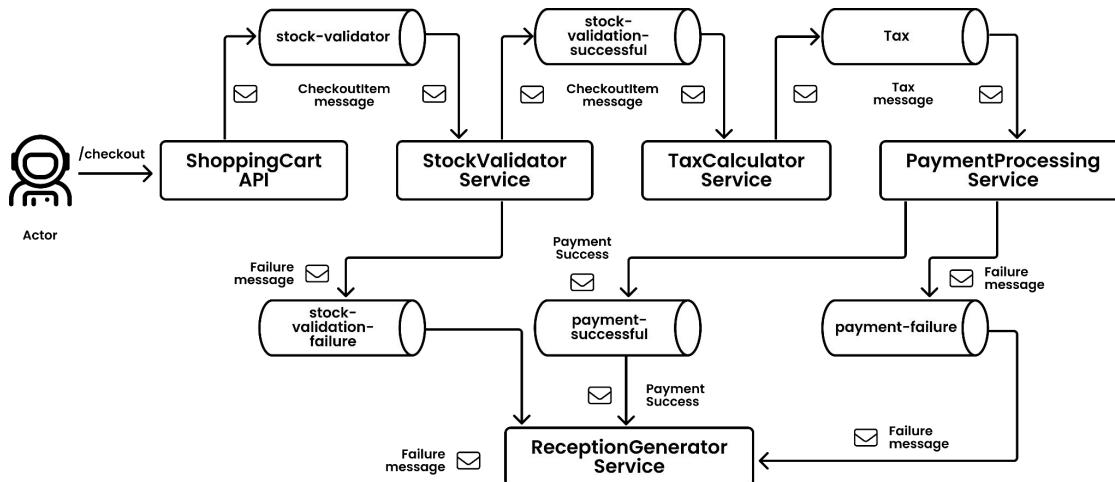
WILL BANK

AFTER PAY

STRIPE

APPLICATION PATTERN

EVENT-DRIVEN ARCHITECTURE



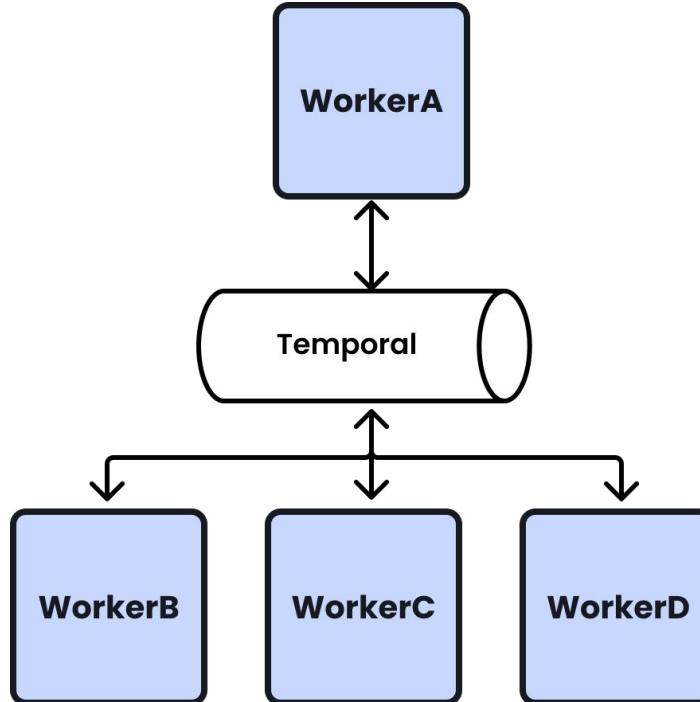
REPLAY TALK REC

Temporal at
Yum! Brands:
A Year Later.

MATT MCDOLE, YUM! BRANDS
DAY 1 - EXECUTION STAGE

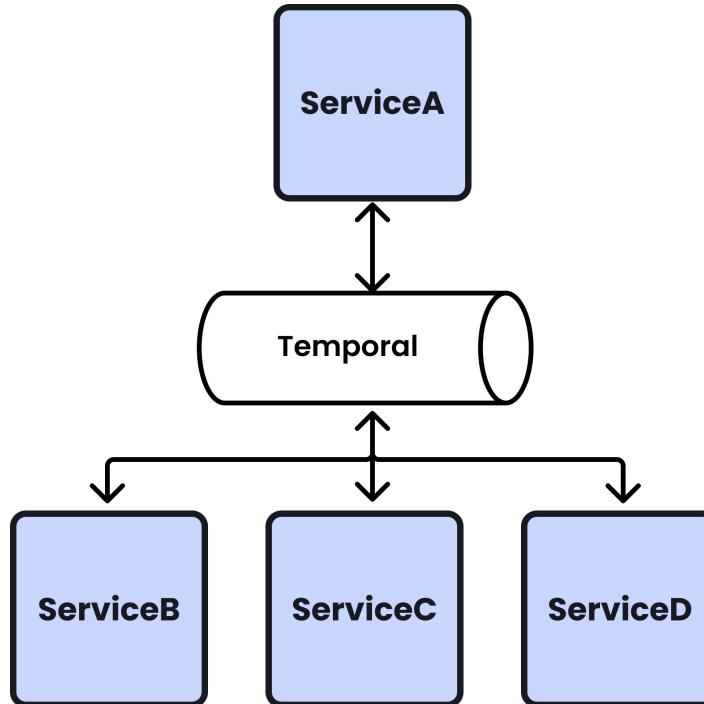
APPLICATION PATTERN

ASYNC ORCHESTRATOR



APPLICATION PATTERN

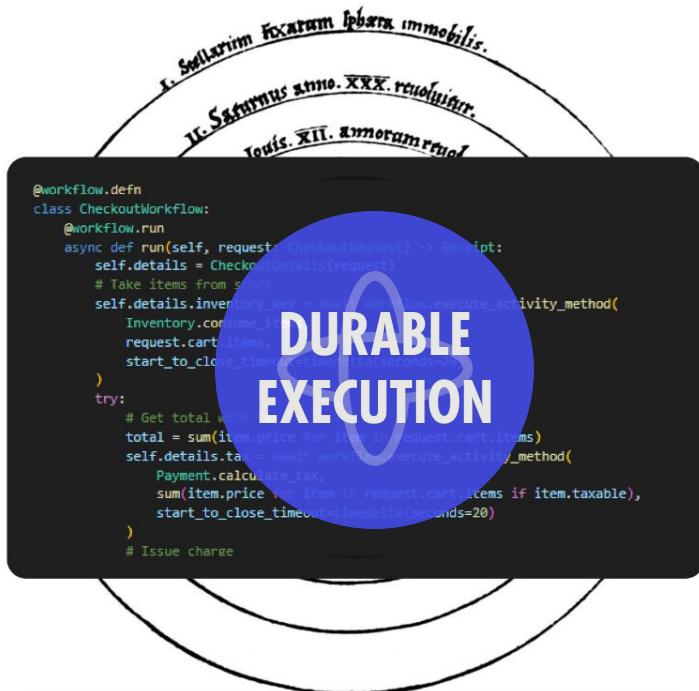
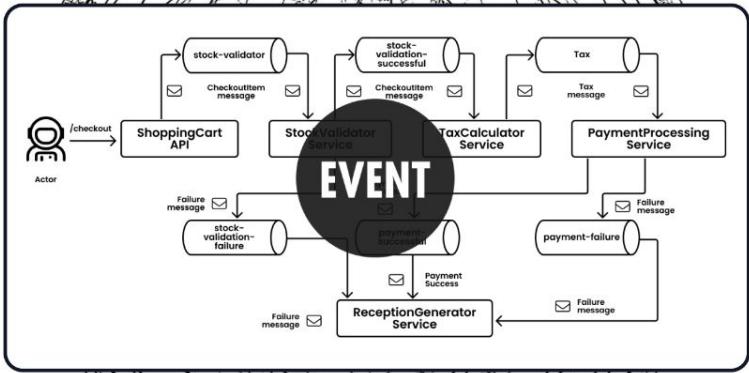
NEXUS



MIX + MATCH

Temporal isn't all or nothing. Invest at your own pace.

EVOLVE YOUR WAY OF THINKING





Temporal

AGENDA

- 01: WELCOME**
LOREN SANDS-RAMSHAW - TEMPORAL
- 02: WHY TEMPORAL FOR EVENT DRIVEN ARCHITECTURES**
MAXIM FATEEV, CEO - TEMPORAL
- 03: WORKFLOWS PRODUCT**
ALLEN GEORGE - DATADOG
- 04: PANEL: WORKFLOWS EVERYWHERE**
MAXIM FATEEV - TEMPORAL, LENNY BLUM - JP MORGAN CHASE, ALLEN GEORGE - DATADOG



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**THANK YOU...
QUESTIONS?**



