



AUTOMATING EVENT- DRIVEN WORKFLOWS

Sophie Johnson, Christian Suarez, Kamila Uranayeva
2022 Aladdin Summer Analyst Program

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AGENDA

**OBJECTIVES AND
GOALS**

**LANGUAGES,
FRAMEWORKS, AND
TOOLS**

**PROJECT
ARCHITECTURE**

LIVE DEMO

KEY TAKEAWAYS

OBJECTIVES AND GOALS

Build a Jupyter extension to automate event-driven workflows

OBJECTIVES AND GOALS

Who is the target user of this development?

Portfolio managers, researchers, traders, citizen developers

What will this Jupyter extension accomplish?

Allows users to create events that trigger execution of specified code snippets every time an endpoint is reached.

Why is this beneficial to users?

- Further automates tasks and conducting research with support for simple, linear, real-time as well as complex, multi-source events (s3, webhook, and custom events)
- Triggers code execution upon a specified event
- Shareability of event-driven workflows across teams

LANGUAGES, FRAMEWORKS, AND TOOLS

Languages

Golang, Python, Typescript

Frameworks

ReactJS, gRPC, Material UI, Kubernetes

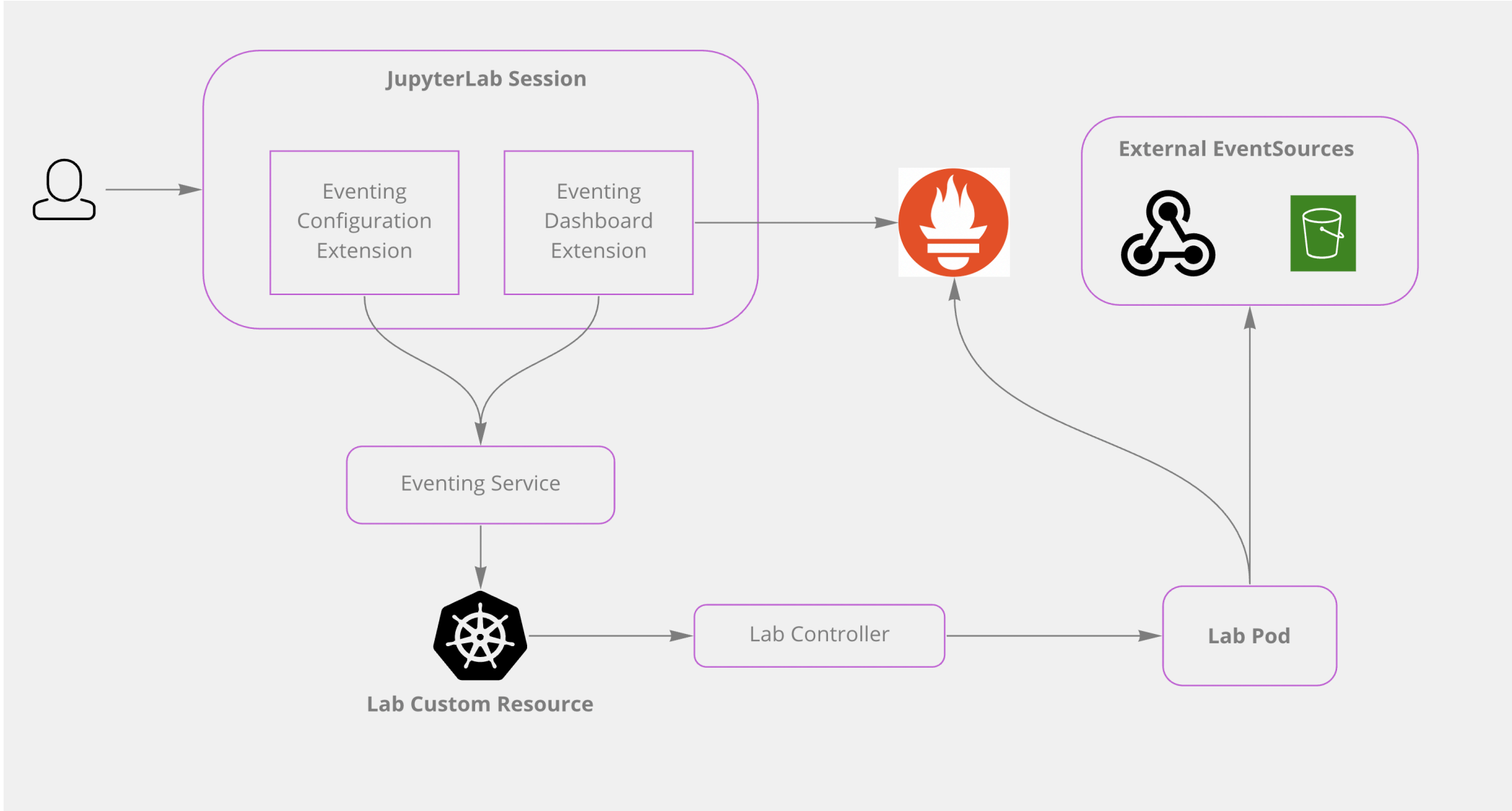
Tools

VS Code, Jupyter Notebook, Postman



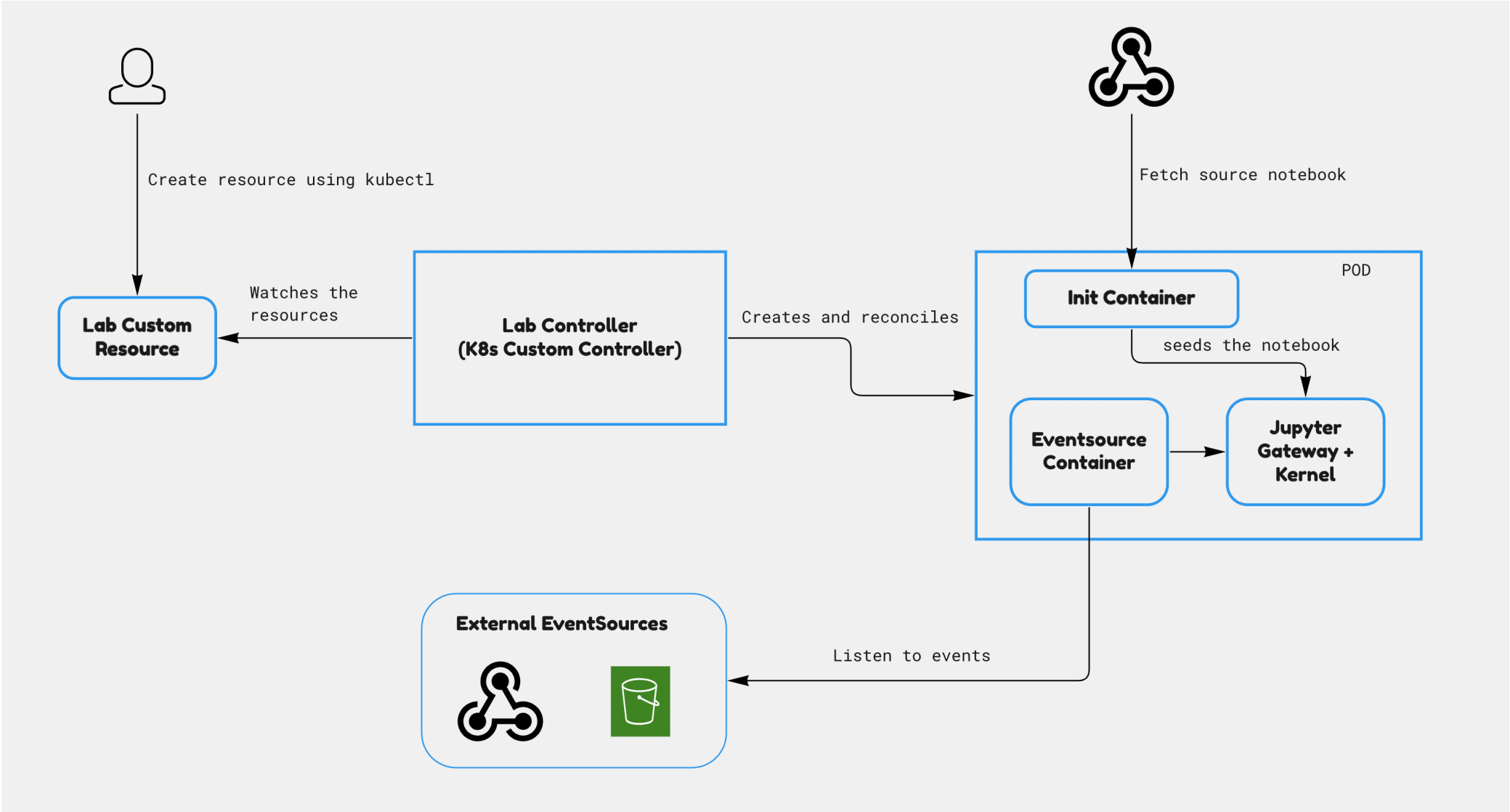
PROJECT ARCHITECTURE

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Project Layout Provided by Vaibhav Page

PROJECT ARCHITECTURE



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EVENTING CONFIGURATION EXTENSION MOCKUP

Webhook Events

Event Source Type

Event Source Name

Webhook Endpoint

Next

Notebook Cell Code Editor

Back

Next

Confirm Configuration Info

Confirm

S3 Events

Event Source Type

Event Source Name

S3 Bucket

☐ s3:Object...:Put

☐ s3:Object...:Delete

S3 Access Key

S3 Secret Key

S3 Endpoint

Next

Notebook Cell Code Editor

Back

Next

Configuration

Confirm

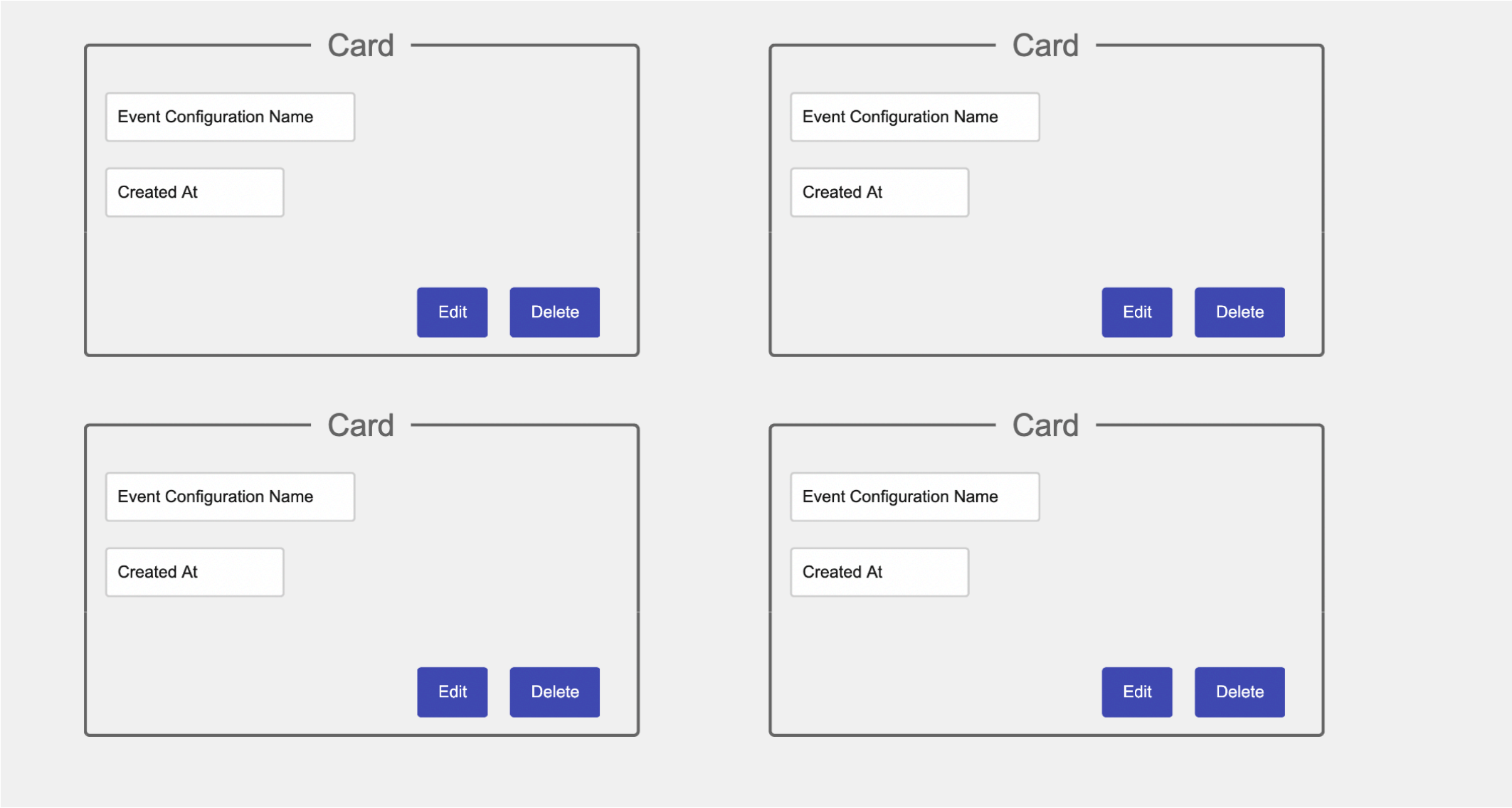
Mockup Provided by Vaibhav Page

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EVENTING DASHBOARD MOCKUP



Mockup Provided by Vaibhav Page



LIVE DEMO



KEY TAKEAWAYS

KEY TAKEAWAYS

- Automating event-driven workflows not only improves efficiency but reduces error
- Understanding the flow of data from front-end input to back-end logic
- Deploying products in Kubernetes enhances the scalability of user tools
- Picking up new programming languages and frameworks enabled our growth as engineers
- Potential for adding other event configuration types other than s3/webhook

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