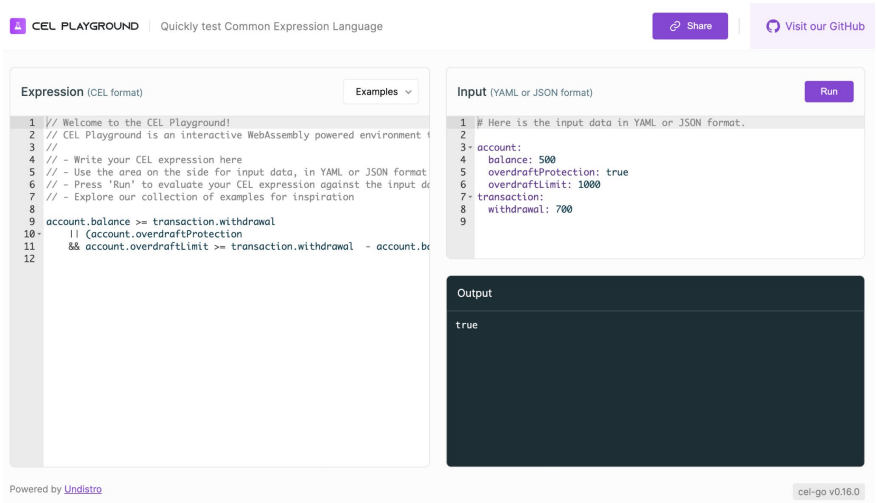

GETUP

CEL PLAYGROUND



Kevin Conner, Director of Engineering
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What is CEL Playground?

CEL Playground is an interactive WebAssembly (Wasm) powered environment to explore and experiment with the Common Expression Language (CEL) providing a simple and user-friendly interface to write and quickly evaluate CEL expressions for use in Kubernetes, Istio and other Cloud Native technologies.

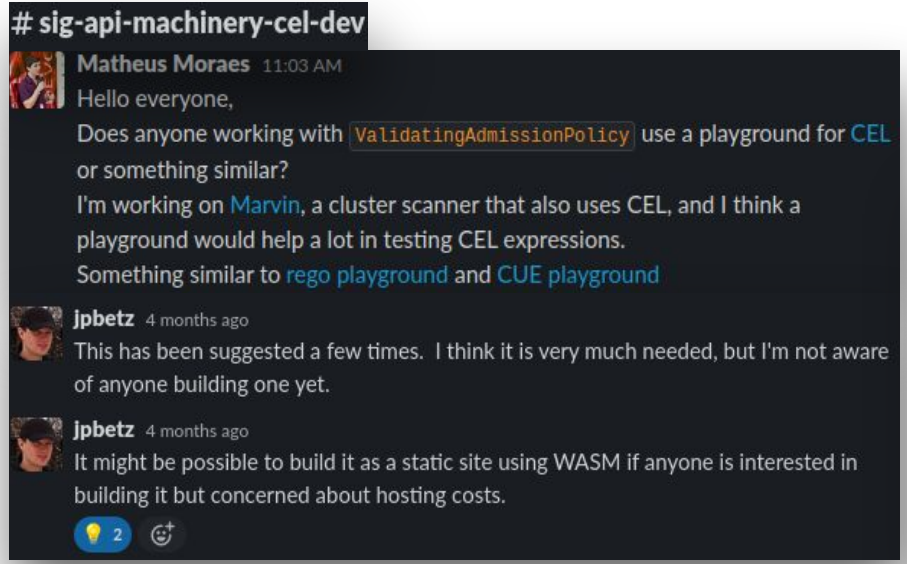
Easy Sharing

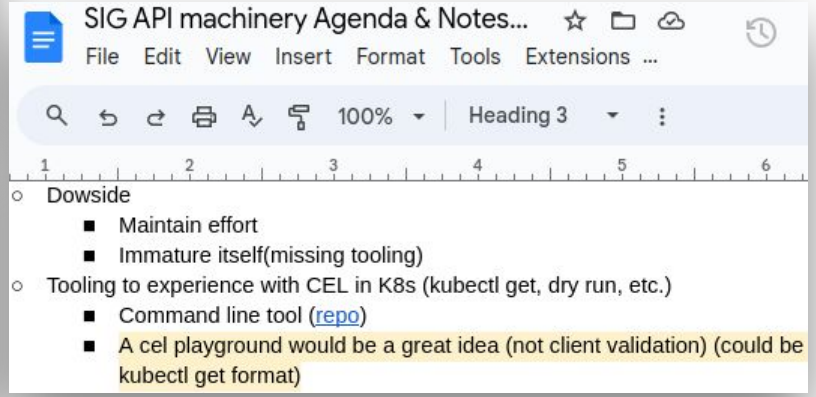
Learning

Quick Testing

Avoid Mistakes

The original idea was to provide a simple browser-based testing environment for Common Expression Language (CEL), the Playground enable and enhance the user experience and exploration of CEL.





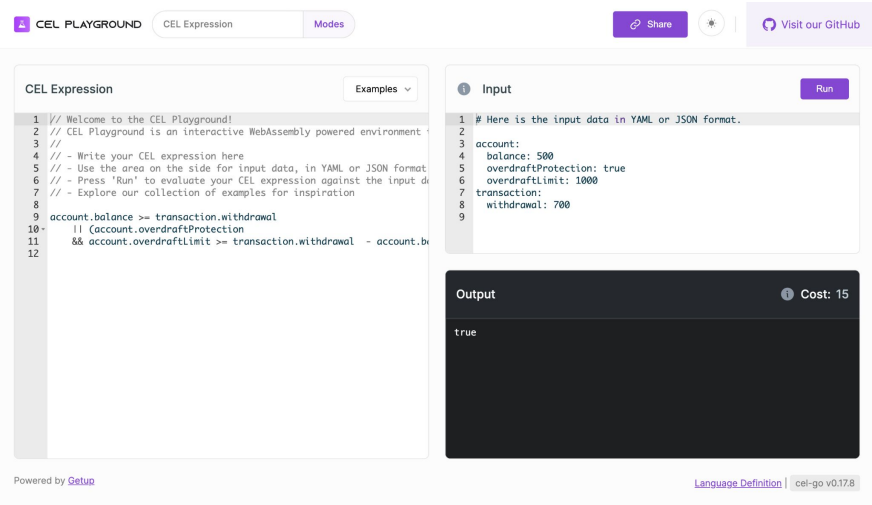
Common Expression Language

- Developed by Google
  - Simple, portable expressions
  - Embeddable
  - Fast evaluation
  - Typed
  - Safe
    - No unbounded loops
  - Extensible

CEL PLAYGROUND

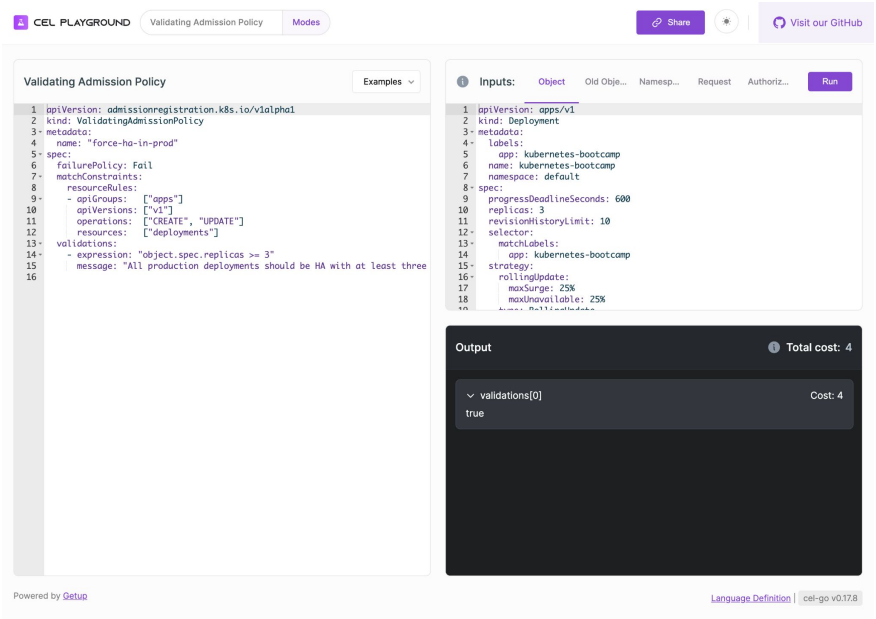
Supported Modes

CEL Expressions



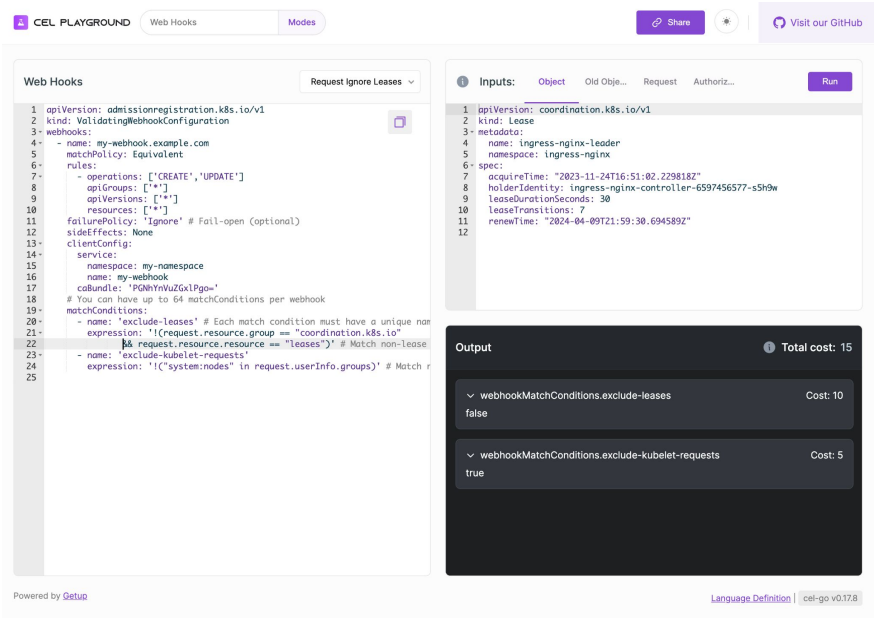
Supported Modes

Validating Admission Policy



Supported Modes

Webhooks



Demo

playcel.undistro.io

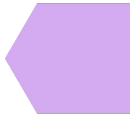
CEL Playground RoadMap

On the Road to CNCF sandbox !

Better support for Kubernetes use cases

Authentication Configuration Claim Mapping

Authorization Configuration



Custom Resource Validation

Structured Editors

Supporting other CNCF & OSS projects

Istio, Envoy
Others?

Testing on live clusters

KubeCon 2024

CEL-Ebrating Simplicity: Mastering Kubernetes Policy Enforcement - Kevin Conner, Getup Cloud & Anish Ramasekar, Microsoft

Wednesday November 13, 2024 3:25pm - 4:00pm MST

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As Kubernetes deployments grow increasingly complex, robust policy enforcement is crucial. The Common Expression Language (CEL) provides a powerful solution, enabling the creation of sophisticated, human-readable expressions for Kubernetes policies. This session explores CEL's integration with Kubernetes, simplifying policy definition and enforcement. Key takeaways: - Fundamentals of CEL and its Kubernetes integration. - Practical use cases for CEL in admission control, resource management, and security. - Enhancing policy expressiveness and flexibility with CEL. - Introduction to CEL Playground for testing and validating CEL expressions. Through live demos, learn to leverage CEL and CEL Playground for streamlined policy management in Kubernetes. Ideal for administrators, developers, and DevOps professionals, this session equips you to enhance your Kubernetes policies using CEL. Join us to discover how CEL and CEL Playground can transform your Kubernetes policy management.

Speakers

Anish Ramasekar
Senior Software Engineer, Microsoft

Anish Ramasekar is a software engineer at Microsoft. He is on the Azure Container Upstream team building features for Kubernetes upstream and various CNCF projects that are part of the Azure Kubernetes Service. Anish is a maintainer of the Secrets Store CSI Driver project.

Kevin Conner
Chief Engineer, Getup Cloud

Kevin Conner is the Chief Engineer at GetUp Cloud, a startup focused on Kubernetes and DevSecOps. He has worked at startups like Integrated Micro Products, Arjuna Technologies, JBoss, and Aviatrix, as well as Sun Microsystems and Red Hat where he led teams for Cloud Enablement, Service... Read More →

Security

Content Experience Level Intermediate

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Are you already using CEL Playground?

Support our community efforts!

Add your organization to our Adopters.md file here:

https://github.com/undistro/cel-playground/blob/main/ADOPTERS.md

Contributions are welcome!

- **CEL Playground:** playcel.undistro.io
- **GitHub Repository**: github.com/undistro/cel-playground
- **Slack**: #cel-playground

CONTACT US

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THANK YOU!

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