GitHub Actions: Unlocking Efficiency

From code to apps!

By Matteo Bianchi

Agenda

Introduction
The Why's

What is GitHub Actions?
Fundamentals and tool exploration

Requirements discussion
Use-case specifics around the Startup

Demo + Q&A
Quick demo showcasing GitHub Actions + questions

Hi there👋

I'm Matteo Bianchi, Solutions Engineer at GitHub and today I'll be sharing with you all of the knowledge you need to get started on GitHub Actions.

You can find me as @mbianchidev on any media, including GitHub!

Introduction

CI/CD & Automation Platform

Automating build, test and deployment of your code and more.

Workflow based

The fundamental piece for any action to be performed on your repository.

What is GitHub Actions?

Commit, branch and pull request

These are only some of the repository elements that can trigger your workflows.

Templates and marketplace

A rich catalog of ready to go templates and a marketplace with community actions, ready to go!

with Actions

- Public repos are free
- Configured via a simple YAML
- Natively integrated with your repos
- Self-hosted runners, easy to set up

with others

- Free only if self-hosted (not always)
- Configured via non-standard files (.erb)
- Customization required to access code
- Maintaining swarms of self-hosted VMs

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Or even a webhook-style POST call!

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Ubuntu, Windows, and macOS runners are available, but you can always self-host a runner.

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Reduces the amount of repetitive code in workflows and it's community driven.

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Use-case

Multi-platform, multi-code

Your startup has a multi-platform application and different stacks for server-side and client-side software.

GitHub Actions provides the perfect solution to build and test your code simultaneously for multiple platforms (ARM/x86) and regardless of the coding language of choice.
We support: Java, Nodejs, Python, Rust, Golang, .NET and more!

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Since you work with Kubernetes and containerized workloads, you will surely love the GitHub container registry and the fact that you can test each of your services and their DBs in your workflows by simply adding a docker-compose to any workflow file.

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Governance and security

Your customers are operating in security-sensitive domains, but you won't need to worry about governance and security of your pipelines at all.

- Every Actions run is logged in real time, allowing to promptly respond in case of anomalies and every run log is saved for future use in case any post-mortem investigation might be needed.

- Built-in secret store, to secure all of your keys so, even in private repositories, you never expose your access. Even to people within your own organization.

- Advanced federation and access management, to ensure you are in control of what your users can see or do.

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GitHub panel interview // Matteo Bianchi

A demo is worth a thousand words!

Sources

https://docs.github.com/en/actions - a big shoutout to the amazing docs team

My real-world experience with GitHub Actions!

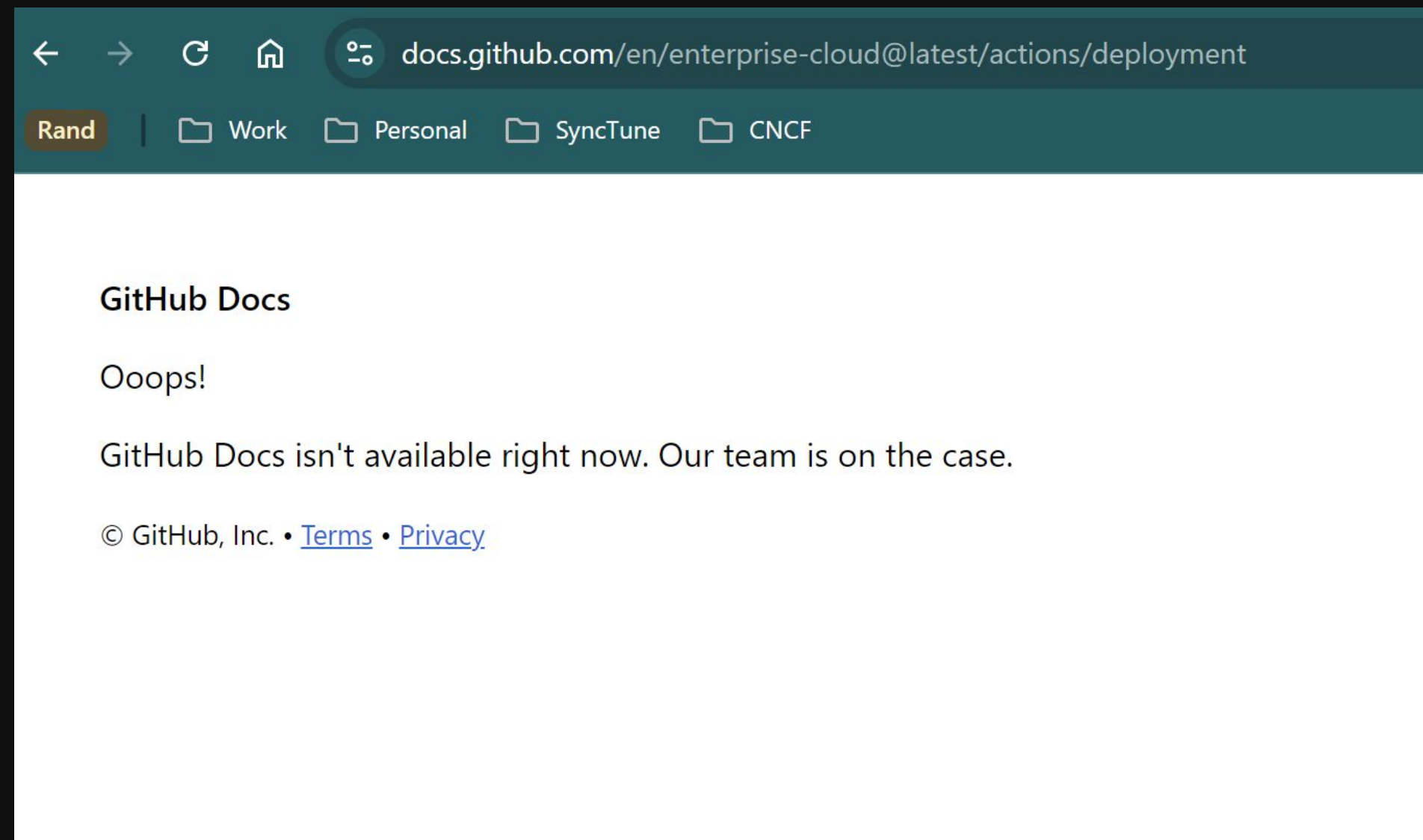# Q&A time!

Funny thing btw!
Some enterprise docs were temporarily broken when preparing this presentation

docs.github.com/en/enterprise-cloud@latest/actions/deployment

Rand | 📁 Work 📁 Personal 📁 SyncTune 📁 CNCF

GitHub Docs

Ooops!

GitHub Docs isn't available right now. Our team is on the case.

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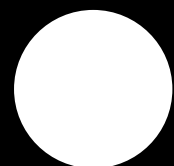This presentation template uses the following free fonts:
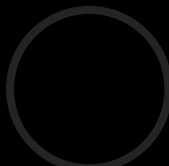
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