Painless Serverless Function Development In Kubernetes

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Hey everyone!

- Co-founder of Okteto.
- Former architect @ Atlassian, Software Engineer @ Azure.
- @rberrelleza in most places.
The Serverless Development Experience is Broken.
The typical development workflow looks like this:
Write your function code locally.
Package the function.
Deploy your function.
Wait a few minutes.
Start end to end validation...
And you find an integration bug!
Add a bunch of println statements.
Package the function.
Deploy your function.
Wait a few minutes. Again.
Success!
We know what went wrong.
Write your function code locally.
Package the function.
This is terrible.
THINK!
is there a better way to do it?

Efficiency starts with your ability.
What if we just run everything locally?
Lambda and Netlify have pretty good local simulators.
But what if you need a database? Or a queue? Or a notification service?
Do you really want to replicate every single part of your function locally?
THERE IS A BETTER, FAIRER WAY.
How about we take the best of both approaches...
... and develop our functions directly where they are going to be running?
With OpenFaas and Okteto you can do exactly that!
OpenFaaS

- Created by Alex Ellis, maintained by OpenFaaS Ltd.
- Write functions in any language.
- Runs on any Kubernetes instance.
- Ease of use through UI portal and one-click install.
Okteto

• Created by Pablo, Ramiro and Ramon.

• Deploy remote development environments directly in Kubernetes.

• Develop in the cluster, while keeping as much of the local experience as you want.
OpenFaaS and Okteto together let you iterate on your function as fast as you can type.
Demo time!
How does it work?
But that’s not all. Having a development environment like this lets us leverage all our existing toolkit.
Incremental builds.
Hot reloaders.
Debuggers!
Demo time!
Developing functions in the same environment as they are going to run lets us go way faster.
You are not waiting on builds and deploys.
You can leverage the entire platform as well as your stack’s toolkit.
And you’re fully integrated from the very beginning.
Links!

- https://github.com/openfaas/faas
- https://github.com/okteto/okteto
- https://twitter.com/rberrelleza
Thank you!