



Gitpod Meetup

How CDE has changed my life (yeah, it has!)

Horacio Gonzalez

2022-03-31



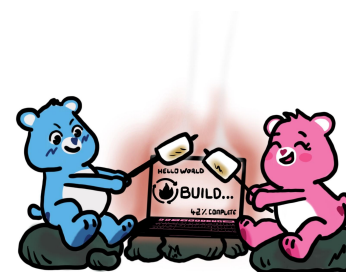
@LostInBrittany

Horacio Gonzalez



@LostInBrittany

Spaniard lost in Brittany,
developer, dreamer and
all-around geek



OVHcloud: A global leader



Web Cloud & Telecom



Private Cloud



Public Cloud



Storage



Network & Security



30 Data Centers
in 12 locations



34 Points of Presence
on a 20 TBPS Bandwidth Network



2200 Employees
worldwide



115K Private Cloud
VMS running



300K Public Cloud
instances running



380K Physical Servers
running in our data centers



1 Million+ Servers
produced since 1999



1.5 Million Customers
across 132 countries



3.8 Million Websites
hosting



1.5 Billion Euros Invested
since 2016



P.U.E. 1.09
Energy efficiency indicator



20+ Years in Business
Disrupting since 1999



OVHcloud



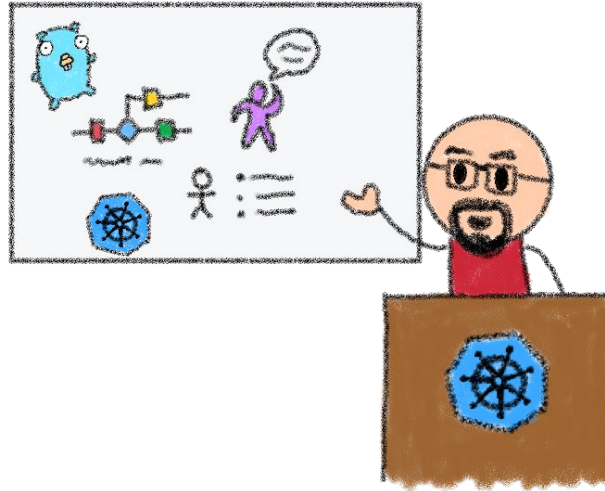
Gitpod Meetup

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It's conferences fault

Conference-driven learning...



I got good news... didn't I?



Congratulations Horacio

From: Big Conference <organization@bigconference.com>

To: Horacio Gonzalez <horacio.gonzalez@gmail.com>



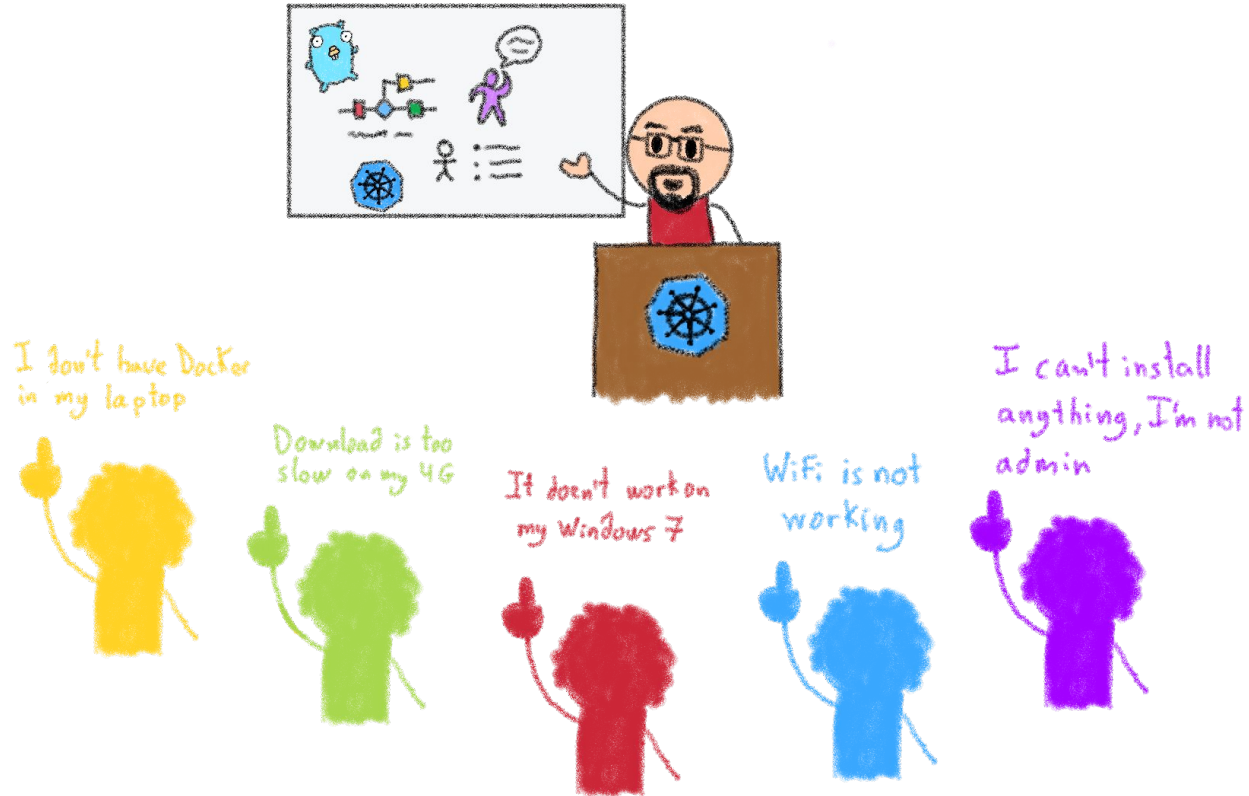
Hi Horacio!

We are happy to tell you that your workshop "Learn Web Components in two hours" has been accepted at Big Conference 2021.

As we are an hybrid conference, you will have 50 attendees physically in the room and 200 remote attendees. The onboarding is critical in this setup, please be sure that attendees can easily spawn a working environment in several minutes, even with a bad network or old computers.



I had already tried to do it right



Spoiler: it was an impossible mission



I began asking around



I need a way to
do an online workshop...

Let me tell you
about  Gitpod



Philippe
@k33g-org

Until Philippe introduced me to GitPod



It sounded too good to be real



An Integrated Development Environment as a Service



But after testing it, I was reassured



Gitpod





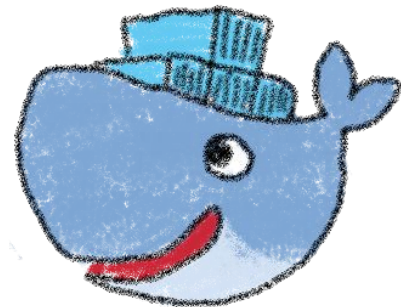
It was more than a simple editor in a browser:
an automated, ephemeral developer environment in the web



I learnt how to tweak the config



- Modifying the default  Docker image:
`gitpod/workspace-full`
- And the two optional  configuration files:
`.gitpod.dockerfile`
`.gitpod.yml`

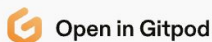


And added GitPod to my repository



What do I need to use this tutorial?

The only tool strictly needed to do this tutorial is a modern web browser (ideally [Chrome](#) or [Chromium](#)). The whole tutorial can be done via the browser on [GitPod](#), without installing anything in your computer. Simply click [here](#) or in the *Open in GitPod* button bellow.



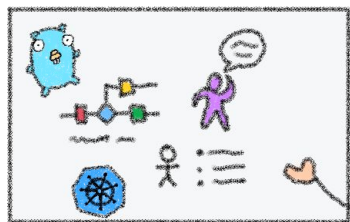
If you want to do the tutorial locally in your computer, you will need a modern web browser (ideally [Chrome](#) or [Chromium](#)), a text editor (we suggest the excellent [Visual Studio Code](#) or [Atom](#))) and [NodeJS](#).

Stencil requires a recent LTS version of NodeJS and `npm`. Make sure you've installed and/or updated Node before continuing.

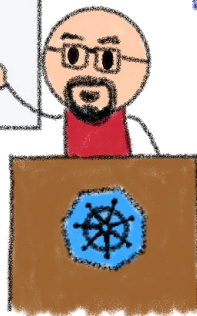
<https://github.com/LostInBrittany/stencil-beers>



The workshop was a success



And this is the end.
Did you like it?



And I was fully convinced



Let me tell you a story



Your next project

From: Boss <boss@mycompany.com>

To: Developer <dev@mycompany.com>

Hi Developer!

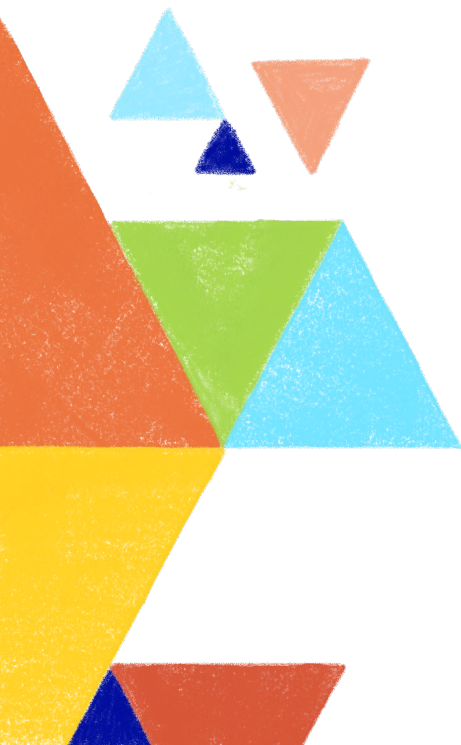
Next Monday you will begin a new project with Big Customer. You will be in a team building a system with a distributed architecture, using Redis & MariaDB storage, Go Python and Java applications, RabbitMQ event bus, ...

And here you have your new laptop, a good one this time, it has 8 GB RAM!



GitPod in the classroom

The more I used GitPod,
the more use-cases I saw





OVHcloud Managed Kubernetes course

From: Training Partner <organization@training@partner.com>

To: Horacio Gonzalez <horacio.gonzalez@ovhcloud.com>



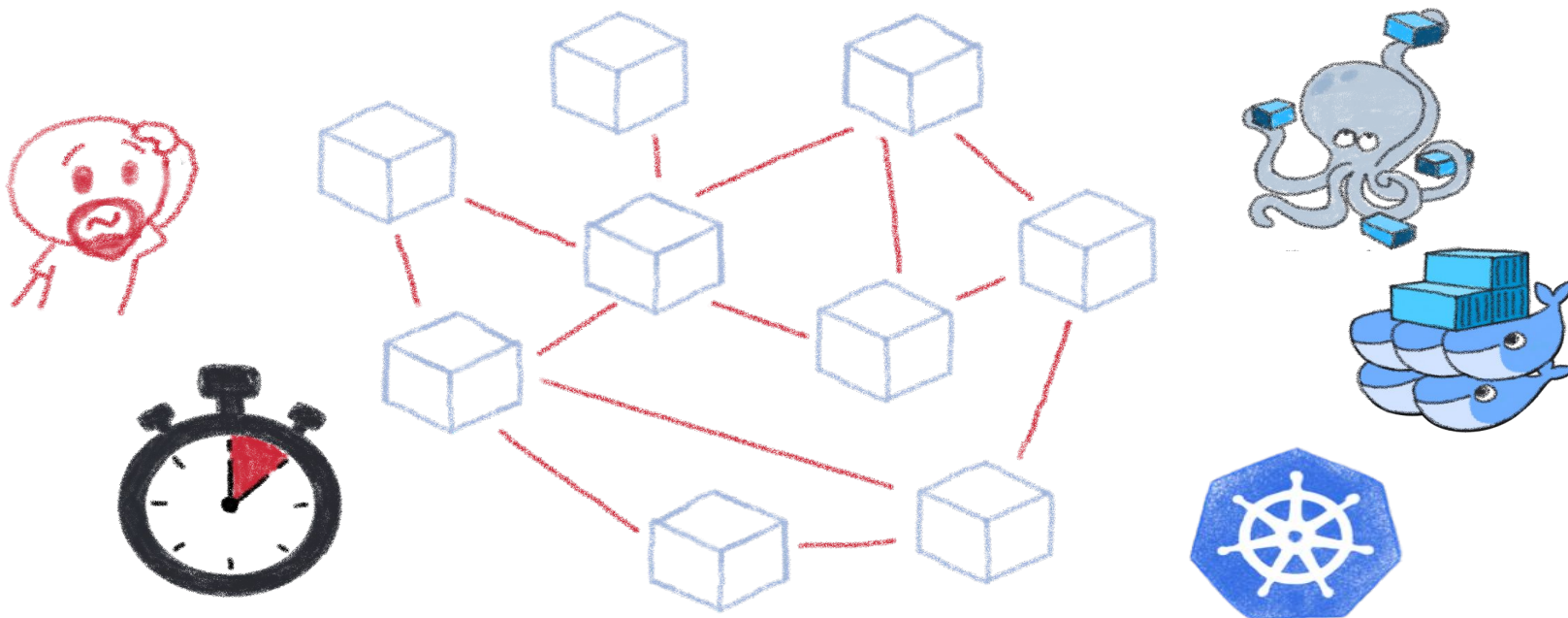
Hi Horacio!

As explained by phone, we would like you to do an OVHcloud Managed Kubernetes course for our organisation. We need to be fully web based, attendees won't be able to install anything in their computers (not even `kubectl`, `helm` or any other tool).

Attendees will only have their browsers and their OVHcloud API credentials.



Kubernetes is complex





Even more if you need to install lots of things
before beginning the course: kubectl, helm, docker...



Integrated learning platform for K8s




 README.md 

Gitpod for K8s

A working Gitpod setup for managing Kubernetes clusters. The workspace includes Kubectl, Helm & Kustomize.

To open the workspace, simply click on the *Open in Gitpod* button, or use [this link](#).

 Open in Gitpod

Configuring Kubeconfig

To administrate your Kubernetes cluster from Gitpod, you need to add your Kubeconfig to your Gitpod workspace. There are two ways to do it:

1- Copying the into your workspace

Copy your kubeconfig into a `~/.kube/config` file in your Gitpod workspace.

Releases

No releases published
[Create a new release](#)

Packages

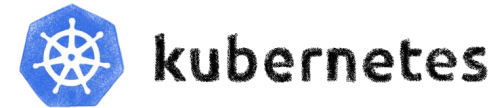
No packages published
[Publish your first package](#)

<https://github.com/LostInBrittany/gitpod4k8s>



OpenStack + S3 + K8s +... = 🤖 ?

First steps with OVHcloud Public Cloud



Openstack-based Public Cloud



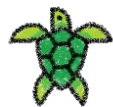
NOVA



GLANCE



NEUTRON



KEYSTONE



HORIZON



CINDER

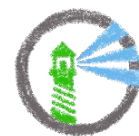
And the whole galaxy of OpenStack components...



With many managed services



kubernetes



HARBOR



PostgreSQL



Redis™

How to simplify the first steps?



OVHcloud



Gitpod Meetup

@LostInBrittany



GitPod eliminates client-side complexity



Working IDE and tooling in a few minutes



An example: Kubernetes & OpenStack



README.md

Gitpod GitPod Workspace for OVHcloud Openstack and Kubernetes

A working Gitpod setup to work with OVHcloud Openstack and Managed Kubernetes. The workspace includes:

- For Openstack: Openstack, Nova, Cinder, Neutron, Swift, Glance, Octavia, Mistral, Barbican and ironic clients, awscli
- For Kubernetes: Kubectl, Helm, Velero & Kustomize.

To open the workspace, simply click on the *Open in Gitpod* button, or use [this link](#).

Open in Gitpod

If you prefer manually setting up the variables, you can also source the `scripts/setOpenstack.sh` file.

```
source ./scripts/setOpenstack.sh
```



<https://github.com/LostInBrittany/k8s-and-openstack-gitpod>



And then I got a Team

The Wonderful DevRel Dream Team



And GitPod was quickly accepted



The screenshot shows a GitPod workspace with a web browser at the top displaying the URL `aqua-earwig-wpty7g9l.ws-eu16.gitpod.io`. Below the browser is a file explorer on the left showing a project structure for a Rails application. The main area is a code editor displaying the file `background_migrations_controller.rb` with the following Ruby code:

```
1 # frozen_string_literal: true
2
3 class Admin::BackgroundMigrationsController < Admin:: ApplicationController
4   feature_category :database
5
6   def index
7     @relations_by_tab = {
8       'queued' => batched_migration_class.queued.queue_order,
9       'failed' => batched_migration_class.failed.queue_order,
10      'finished' => batched_migration_class.finished.queue_order.reverse_order
11    }
12
13    @current_tab = @relations_by_tab.key?(params[:tab]) ? params[:tab] : 'queued'
14    @migrations = @relations_by_tab[@current_tab].page(params[:page])
15    @successful_rows_counts = batched_migration_class.successful_rows_counts(@migrations.map(&:id))
16  end
17
18  def pause
19    migration = batched_migration_class.find(params[:id])
20    migration.paused!
21  end
22 end
```

At the bottom, a terminal window shows the output of running the application:

```
ok: run: /workspace/gitlab-development-kit/services/rails-background-jobs: (pid 2232) 0s, normally down
ok: run: /workspace/gitlab-development-kit/services/rails-web: (pid 2233) 0s, normally down
ok: run: /workspace/gitlab-development-kit/services/ssh: (pid 2234) 0s, normally down
ok: run: /workspace/gitlab-development-kit/services/webpack: (pid 2235) 0s, normally down

=> GitLab will be available at http://127.0.0.1:3000.
master
SYNCING lefthook.yml
SERVED HOOKS: pre-push, prepare-commit-msg
Updated 1 path from the index
Awaiting port 3000... ok
Waiting for GitLab at https://3000-aqua-earwig-wpty7g9l.ws-eu16.gitpod.io .....
Mon 30 Aug 2021 07:06:16 PM UTC - GitLab is up (took ~0.5 minutes)
gitpod /workspace/gitlab (master) $
```


A powerful tool in our DevRel arsenal



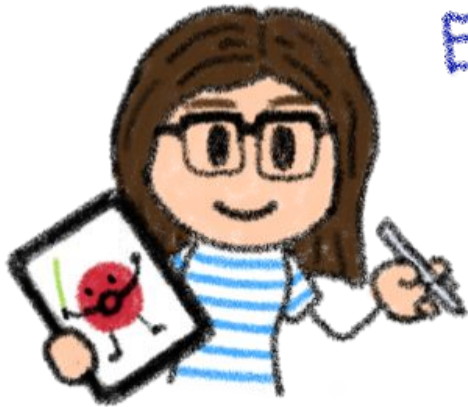
It made complicated things easy



How to layout, test and prepare for publishing
a hand-drawn book on  kubernetes on a laptop
with neither admin account nor  docker?

Easy! Simply use  Gitpod!

@AurelieVache



It made complicated things easy



So in order to render the doc I need
a virtual env Python, a hundred of libs,
Pelican site generator and several
custom plugins?

Give me two days, I am putting it all
on  Gitpod!

@RacLePoulpe






It made complicated things easy



I really love Open Source, and  Gitpod is the perfect tool to make contributors' onboarding fast & painless 






Oh, and I also love how it makes easy to prepare a workshop on  kubernetes operators in  Java with  QUARKUS without any problem!

@Wil2agsx



It made complicated things easy



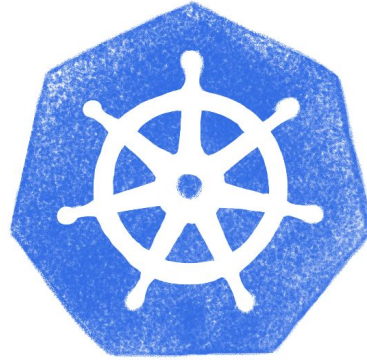
When I want to experiment with  Wasm, or to verify if @k33g-org's latest idea is as wonderful as it seems, I need a quick way to have the latest  Rust &  TinyGo environments.

@TitiMoby



Installing GitPod Open Source

You only need a Kubernetes...



Good and bad reasons



Good reasons to use GitPod Open Source:

- I can't use a SaaS to deal with my source code
 - That also means no GitHub, GitLab or BitBucket...

Bad reasons to use GitPod Open Source:

- I am cheap and I don't want to pay the SaaS
 - It's going to cost you time and money to host it



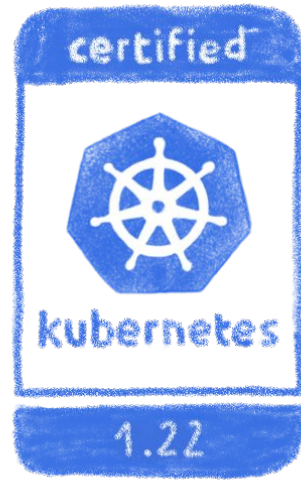
Not a straightforward task...



You need some Kubernetes skills...



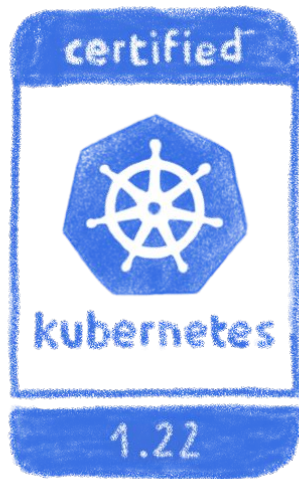
If you don't need to build it, choose a certified managed solution



You get the cluster,
the operator get the problems



Using OVHcloud Managed Kubernetes

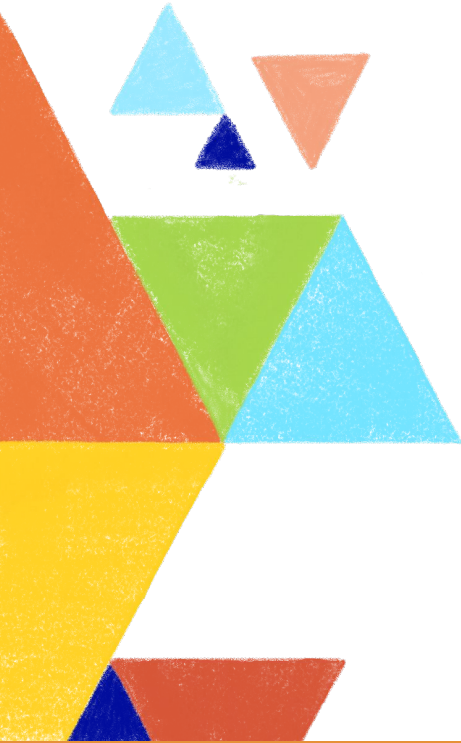


A easy, cost-effective solution



One more thing...

As the late Mr Jobs said



Cloud Developer Environment



The screenshot shows the Gitpod website with a navigation bar at the top containing links for CDE, Docs, Resources, Enterprise, Customers, and Pricing. A 'Dashboard' button is visible in the top right corner. The main heading is 'Cloud development environments (CDEs)', followed by a subtext: 'CDEs bring the creative workflow of writing software to the cloud.' Below this is an orange button labeled 'Principles of CDEs'. A large graphic of several floating isometric computer icons is positioned to the right of the heading. Further down, a section titled 'Why does it have to be this way?' contains the text 'Local development environments are history-dependent, static, and cobbled together.' Below this text are two white boxes, each with a person icon and a quote. The first quote is from a woman: 'Most of my tools are automated. Why do I have to spend hours every week fixing my developer environment?'. The second quote is from a man: 'It works on my machine but not on anyone else's. Why is it so difficult to share and collaborate on my projects?'.

Gitpod

CDE Docs Resources Enterprise Customers Pricing

10.1k Dashboard

CDE

Cloud development environments (CDEs)

CDEs bring the creative workflow of writing software to the cloud.

Principles of CDEs

Why does it have to be this way?

Local development environments are history-dependent, static, and cobbled together.

Most of my tools are automated. Why do I have to spend hours every week fixing my developer environment?

It works on my machine but not on anyone else's. Why is it so difficult to share and collaborate on my projects?



GitPod isn't the only one



But it's the most advanced and flexible today!



But, IMHO, CDEs are here to stay!



No overpowered laptop needed

- Low cost ultraportable laptop
- Chromebook
- iPad*
- Android tablet*

No setup time

Multiple environments in no time

Because as we said in another conference,
do we really need 5000\$ laptops to develop an app?

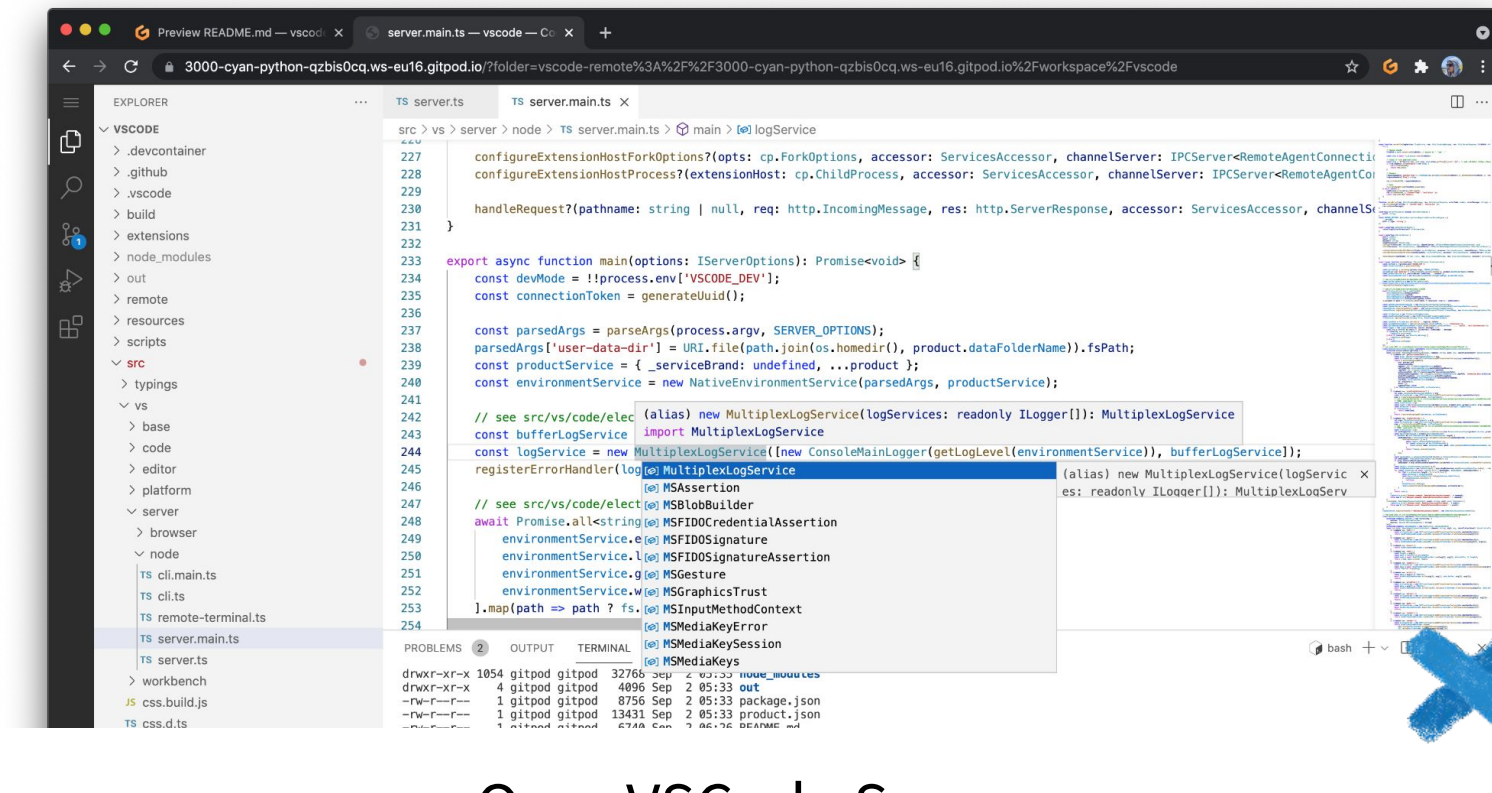


One second thing more...

Hey man, Mr Jobs never said that!



VS Code in the browser for everyone




OpenVSCode Server




Open source project by GitPod



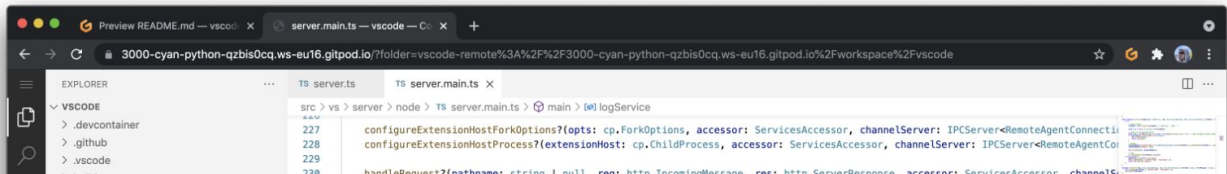
 README.md

OpenVSCode Server

 Gitpod ready-to-code license MIT chat 129 online

What is this?

This project provides a version of VS Code that runs a server on a remote machine and allows access through a modern web browser. It's based on the very same architecture used by [Gitpod](#) or [GitHub Codespaces](#) at scale.

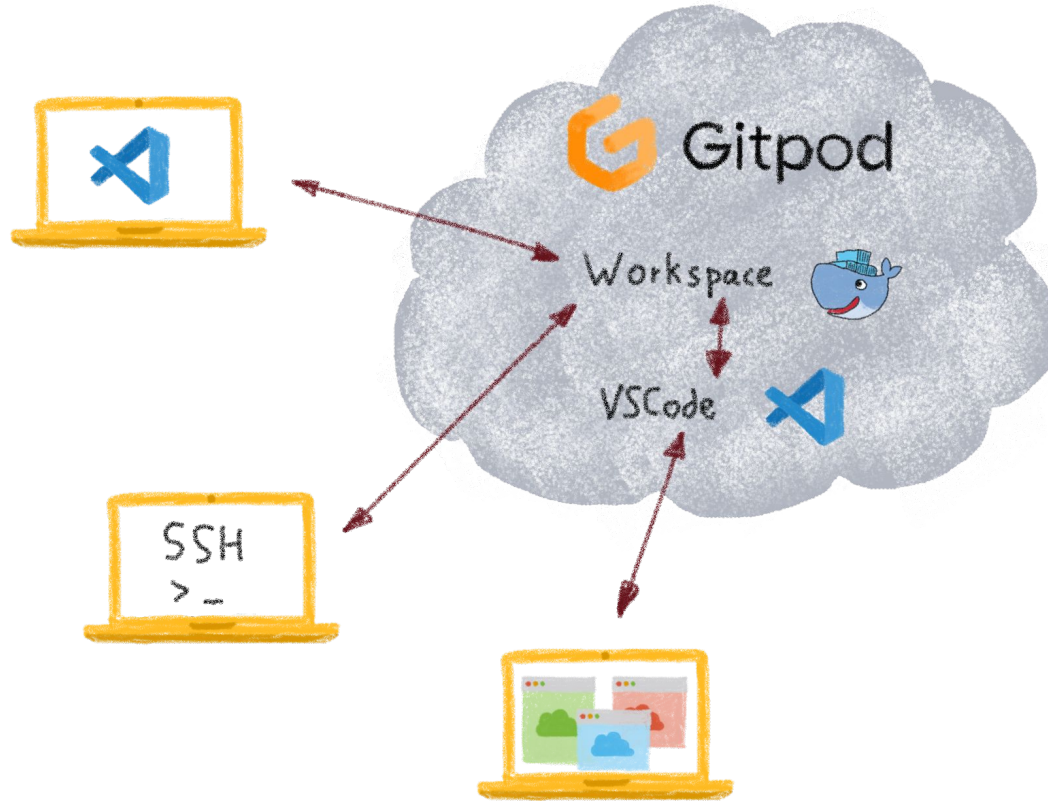


Backed by GitLab, VMware, Uber, SAP, Sourcegraph, SUSE...

<https://github.com/gitpod-io/openvscode-server/>



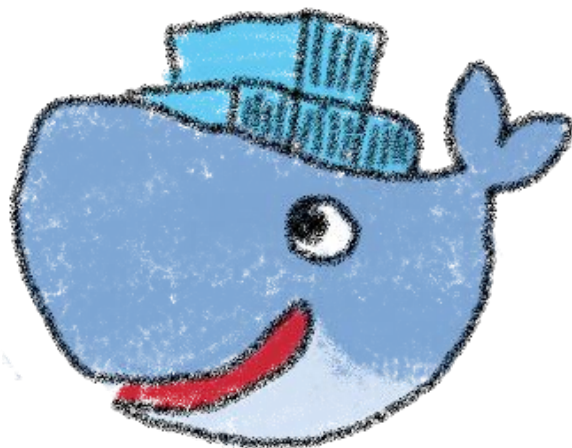
How is this different to Gitpod?



GitPod is more than an IDE



Very simple to deploy

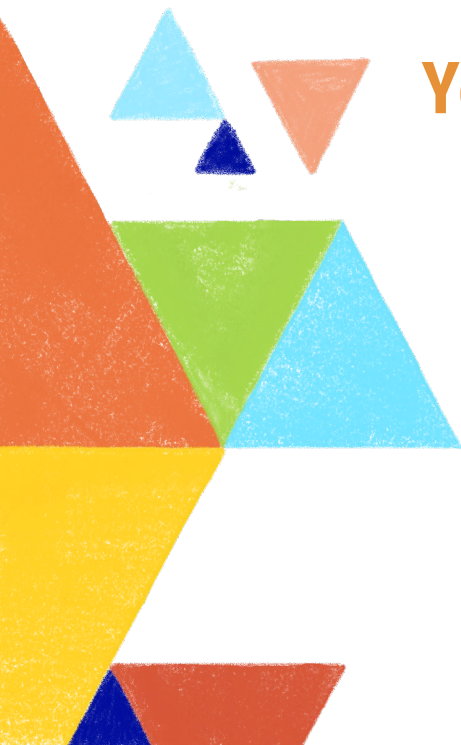


```
docker run -it --init -p 3000:3000 -v  
"$(pwd):/home/workspace:cached" gitpod/openvscode-server
```



One last thing more...

You should be stopping now, Horacio!



It's all your fault, mate!



Many thanks to Philippe Charrière (@k33g_org)



That's all, folks!

Thank you all!

