

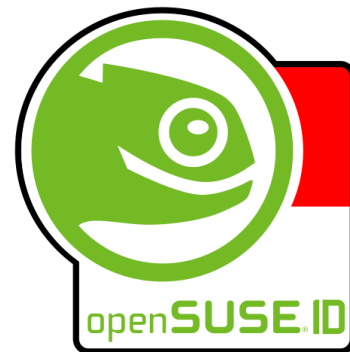
Flatpak & AppImage Usage on openSUSE. Which One Suitable for openSUSE Users?

openSUSE Asia Summit 2017
Chofu, Tokyo, Japan
October 21 - 22, 2017

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Hello (world)

- Kukuh Syafaat
 - インドネシア
 - FOSS Enthusiast
 - openSUSE-ID
 - Translator
 - <https://l10n.opensuse.org>
 - <https://l10n.gnome.org>
 - Some FOSS projects at transifex.com
 - Endless Ambassador



- アプリケーションコンテナ技術の Flatpak と AppImage どちらを使うべきか？
 - アプリケーション、ライブラリを1つのコンテナ(パッケージ)にしてどのディストリでも動くように





Cross Distribution Packages/Containerised Applications

Snap, AppImage, Flatpak

Feature	Snap	AppImage	Flatpak
No software necessary to install a package	No	Yes	No
Shared runtimes	Basic	No	Full
Sandboxing	AppArmor	Yes	Custom
Repository support	Yes	No	Yes
Central repo	Yes	No	Yes
Updates	Automatic	Yes	Automatic

Source: <https://www.devpy.me/snapcraft-appimage-flatpak/> with some changes



Snap

- <https://snapcraft.io/>
- The installation (on distros other than Ubuntu) of Snapcraft have a lot more difficult and buggy

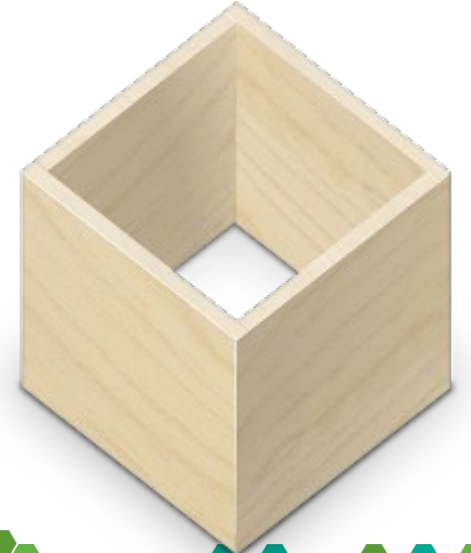


The background features abstract geometric shapes in two shades of green. A large teal shape occupies the left and top portions, while a bright green shape is on the right. A white diagonal line separates the two green areas.

Flatpak

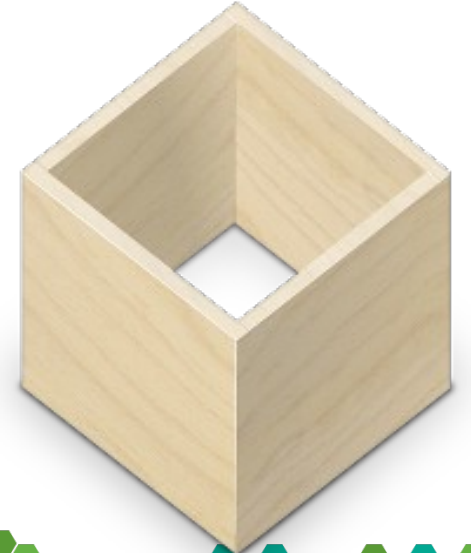
Flatpak

- Flatpak (formerly xdg-app) is a software utility for software deployment, package management, and application virtualization for Linux desktop computers.
- <http://flatpak.org/>



Why Flatpak?

- Access a wide variety of applications
- Get new versions faster
- Safely update your apps without having to reboot
- Install different versions of the same application
- Secure, sandboxed applications



SANDBOX

APPLICATION

DATA

CODE

LIBRARY

LIBRARY

LIBRARY

RUNTIME
(SHARED)

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

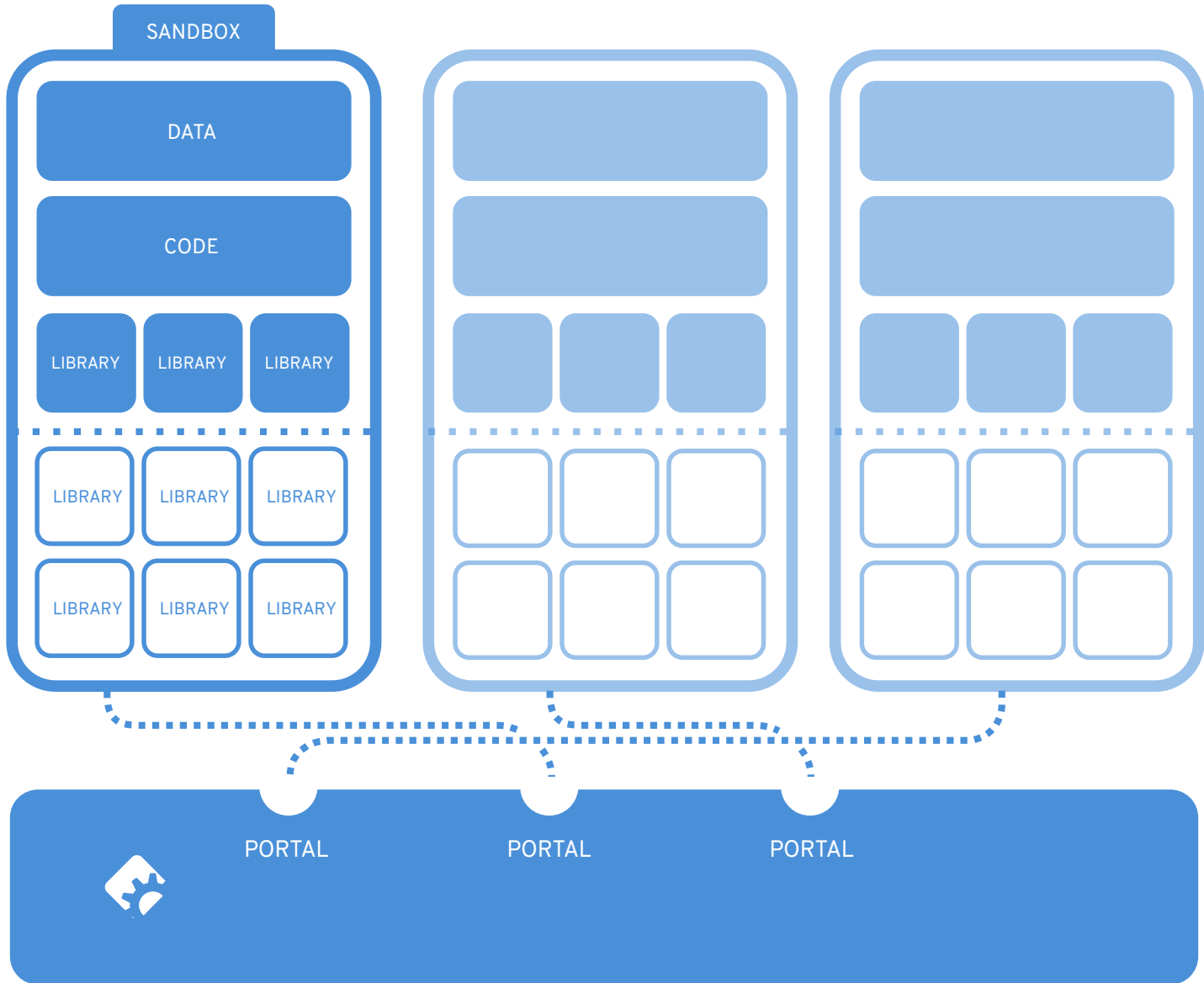
LIBRARY

PORTAL

PORTAL

PORTAL

OPERATING SYSTEM

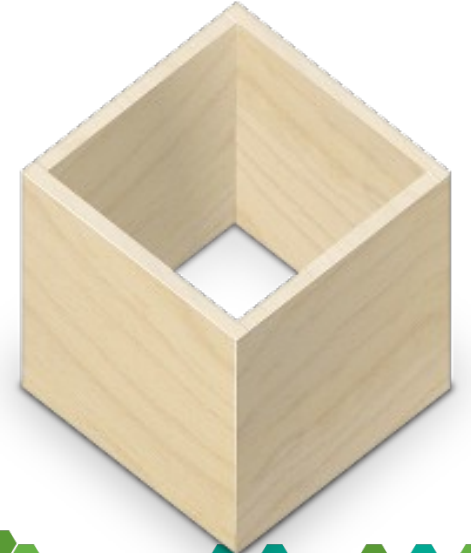


Install Flatpak on openSUSE

```
$ sudo zypper install flatpak
```

Current Version

- Tumbleweed: 0.9.8
- Leap 42.3: 0.8.6



<https://flathub.org/>

Welcome to Flathub

Flathub is a build and distribution service for Flatpak applications. Its goal is to act as a central hub for making desktop applications available to users.

To download desktop applications on a modern Linux-based system, **download** the repository file and add it to your system with GNOME Software or the Flatpak command line.

Flatpak Repositories

- **Flathub**

```
$ flatpak remote-add --if-not-exists flathub  
https://flathub.org/repo/flathub.flatpakrepo
```

- **GNOME**

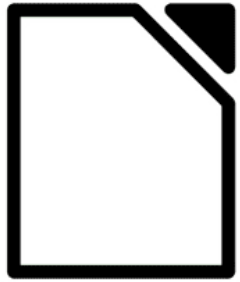
```
$ flatpak remote-add --if-not-exists gnome-nightly  
https://sdk.gnome.org/gnome-nightly.flatpakrepo
```

```
$ flatpak remote-add --if-not-exists gnome-apps-nightly  
https://sdk.gnome.org/gnome-apps-nightly.flatpakrepo
```





Flatpak Case Study



LibreOffice
The Document Foundation



LibreOffice in openSUSE

- **Current Version**
 - Tumbleweed: 5.4.2
 - Leap 42.3: 5.3.6



LibreOffice
The Document Foundation



LibreOffice Flatpak

- <http://www.libreoffice.org/download/flatpak/>
- <http://download.documentfoundation.org/libreoffice/flatpak/>

```
$ wget
```

```
http://download.documentfoundation.org/libreoffice/flatpak/latest/LibreOffice.flatpak
```

```
$ flatpak install --user --bundle LibreOffice.flatpak
```

```
$ flatpak run org.libreoffice.LibreOffice
```





Spotify®



Package Search



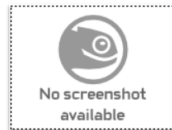
Show development, language and debug packages

Show distribution:



spotify-easyrpm

Download, convert and install the **Spotify** for Linux package



spotifywebplayer

Spotify Player for Linux



nuvola-app-spotify

Configuration data for Nuvolaplayer for **Spotify** service

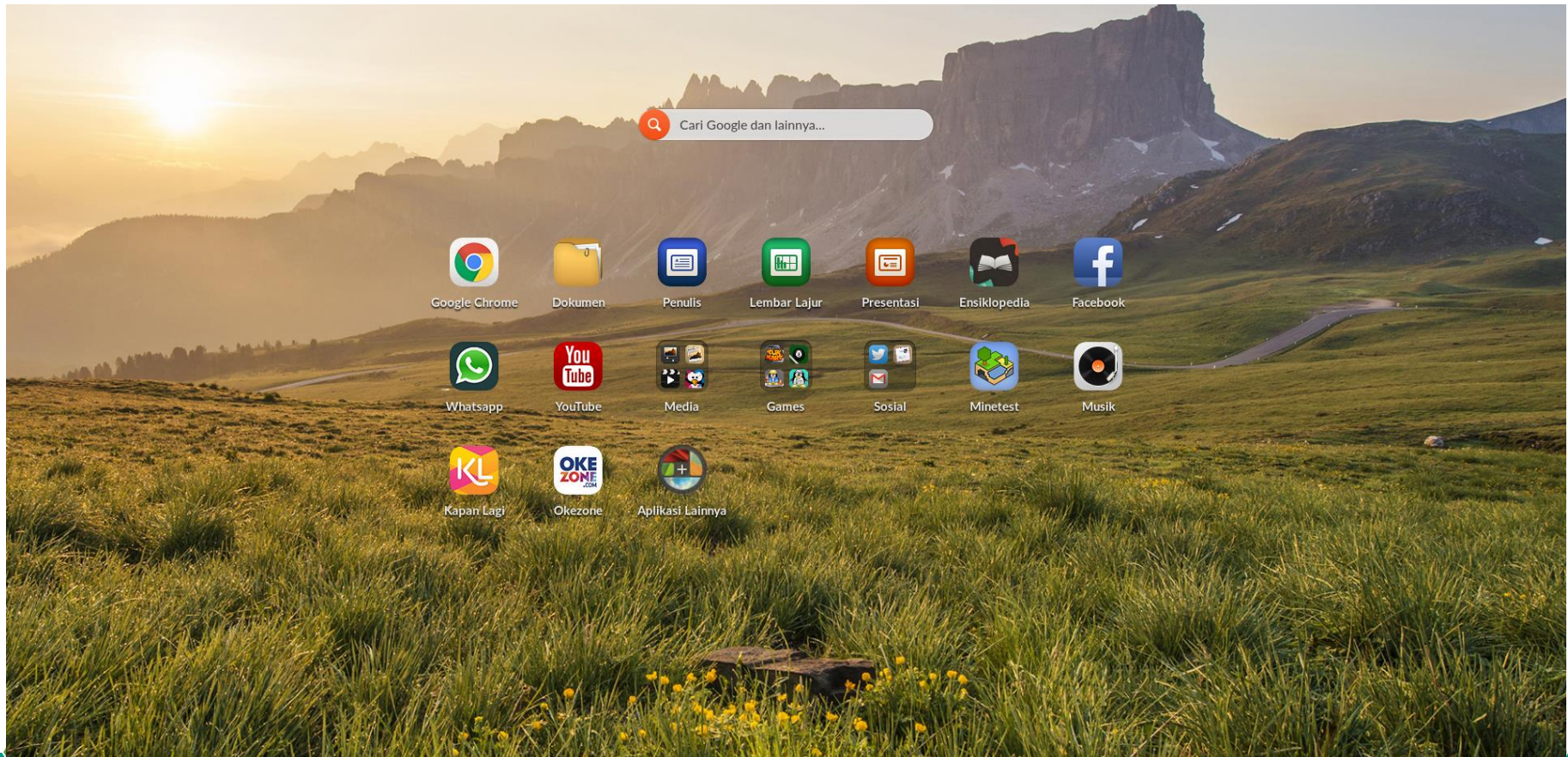
Spotify Flatpak

```
$ flatpak install --from  
https://flathub.org/repo/appstream/com.spotify.  
Client.flatpakref
```

```
$ flatpak run com.spotify.Client
```



<https://endlessos.com/>





ENDLESS = **Flatpak** + GNOME + OSTree





Flatpak

@FlatpakApps

Follow



.@sysrich builds variant of OpenSUSE with atomic OS updates and Flatpak as the sole application delivery mechanism.

hackweek.suse.com/16/projects/ku ...

2:31 AM - 11 Oct 2017

Source: <https://twitter.com/FlatpakApps/status/918046440231964672>





Kubic Desktop - aka Sgt Peppers Read Only Hearts Club Band

an invention by [RBrownSUSE](#) 

Last updated about 6 hours ago. Captured 3 hacker hearts.

The Kubic Project currently produces a "CaaSP-like" Tumbleweed OS, focused on Kubernetes clusters

However many of the attributes of Kubic (read-only filesystem, transactional updates, containerised services) could be an interesting platform for another use **A Chromebook-like Linux Desktop**

A read-only Tumbleweed installation, with the GNOME Desktop could be a very interesting platform for basic Linux users.

Stability can be preserved by the lack of variables introduced by the locked down base OS. OS Updates can be pushed out automatically on a regular basis (Weekly?). OS Updates will be atomic and automatically rolled back if they don't work, as we do in CaaSP / Vanilla Kubic.

The only question then becomes User-land Applications.

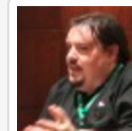
There's already lots of new answers for that - AppImage, Snaps & Flatpak

So my hackweek project will be to create a Kubic Desktop image and experiment with Flatpaks as the source of Application packages. I'm choosing Flatpak because of the tight integration with GNOME, and GNOME will be the only desktop, because it's my hackweek project, and so it's my choice ;)

Yes, this means after all of my talks about Flatpaks I am going to spend my hackweek using them..

Hell has frozen over

Hackers:



Looking for mad skills in:

containers

flatpak

obs

gnome

This project is part of:

Hack Week 16 

The background features abstract geometric shapes in two shades of green. A large teal shape occupies the left and top portions, while a bright green shape is on the right. A white diagonal line separates the two green areas.

Applimage

Flatpak/Flathub Issues



Richard Brown

@sysrich

Follow



Dear Flathub - if you don't document and include licenses when redistributing software, you might not have the right to distribute it
#sigh

1:51 PM - 11 Sep 2017

Source: <https://twitter.com/sysrich/status/907134588941729792>



AppImage

- Format for distributing portable software on Linux without needing superuser permissions to install the application.
- <https://appimage.org/>





.exe



.dmg



.AppImage

AppImage

EXECUTABLE

SQUASHFS IMAGE

- One file per app and version

AppImage

EXECUTABLE

SQUASHFS IMAGE

- Binary
- Mounts the image with FUSE when executed

AppImage

EXECUTABLE

SQUASHFS IMAGE

- Bundle app and everything that is not part of all target systems: icons, i18n, Qt 5, KF5,...
- Built on host that as old as the oldest target systems

Running AppImage

- Make it executable

```
$ chmod a+x YourApp.AppImage
```

- Run

```
$ ./YourApp.AppImage
```





ApplImage Case Study

LibreOffice AppImage

- <http://libreoffice.soluzioniopen.com/>
 - Stable
 - LibreOffice-5.3.6
 - LibreOffice-5.4.1
 - Pre-Releases
 - LibreOffice-5.4.2.2
 - Daily
 - LibreOfficeDev-6.0.0



LibreOffice
The Document Foundation



Kdenlive

- <https://kdenlive.org/download/>
 - Latest AppImage 17.08.1



OpenShot

- <http://www.openshot.org/download/>
 - Latest AppImage v2.4.0



Krita

- <https://krita.org/en/download/krita-desktop/>
 - Latest AppImage v3.3.0



AppImageHub


- Crowd-sourced central AppImage directory
- <https://appimage.github.io/apps/>





Apps in ApplImage format

We currently have 133 [apps](#) in our database. Something missing? [Report it at GitHub](#).

Name	Description	Authors	License	Update Information	Signature
Alduin GitHub , Install	Utility: An Atom and RSS feed aggregator	Xstoudi	MIT		
AlphaT GitHub , Install	Utility: 文档翻工具	sigoden			
ApplImageUpdate GitHub , Install	System: Update ApplImages from their upstream location	ApplImage	MIT	✔ Yes, can use ApplImageUpdate	
ApplImageUpdateTest  Web , GitHub , Install ,	:	ApplImage	MIT		
BitShares GitHub , Install	Finance: Advanced wallet interface for the BitShares financial blockchain	bitshares	MIT		



Package Search


 Show development, language and debug packagesShow distribution:

Get Pencil

Pencil is available in two different types of packaging: standalone application and Firefox extension.

Standalone version for your own operating system

Different builds of Pencils are made for popular operating systems. Please select the build on the right side and start installing Pencil.



- [Fedora 64 bit RPM package](#)
- [Fedora 32 bit RPM package](#)
- [Ubuntu 64 bit .DEB Package](#)
- [Ubuntu 32 bit .DEB Package](#)



[Windows Installer \(32 and 64 bit\)](#)

73 MB, .exe file



- [Mac OSX .dmg Image](#)
- [Mac OSX .zip archive](#)

Pencil AppImage #424

Edit

New issue

Open

cho2 opened this issue 16 days ago · 2 comments



cho2 commented 16 days ago



- Operating system: all Linux
- Pencil version: 3.x.xx

Any plan to make Pencil AppImage (<https://appimage.org/>)?



2



1



philipzæ commented 6 days ago



More users could easily try out the nightly builds if they were in appimage format and it not overwriting the installed version.



1



probonopd commented 6 days ago



Since this project is already using `electron-builder`, it should be **very** easy to do since electron-builder has native support for generating AppImage.

Assignees

No one assigned

Labels

None yet

Projects

None yet

Milestone

No milestone

Notifications

Unsubscribe

You're receiving notifications because you authored the thread.

3 participants





probono

@probonopd

Follow



"Applmage is by far the simplest solution of the three."

DevPy @devpytech

Snapcraft, Applmage, and Flatpak ... which one is the best? dlvr.it/Pq8dHC

1:17 PM - 26 Sep 2017

Source: <https://twitter.com/probonopd/status/912561641316847616>





Linus Torvalds

„This is just very cool.“

AppImage & Flatpak

Feature	AppImage	Flatpak
No software necessary to install a package	Yes	No
Shared runtimes	No	Full
Sandboxing	Yes	Custom
Repository support	No	Yes
Central repo	No	Yes
Updates	Yes	Automatic

Source: <https://www.devpy.me/snapcraft-appimage-flatpak/> with some changes



OBS



ApplImage

Next session:

Using **OBS** to Build Containerised Application Image

Learn How To Generate **ApplImage**

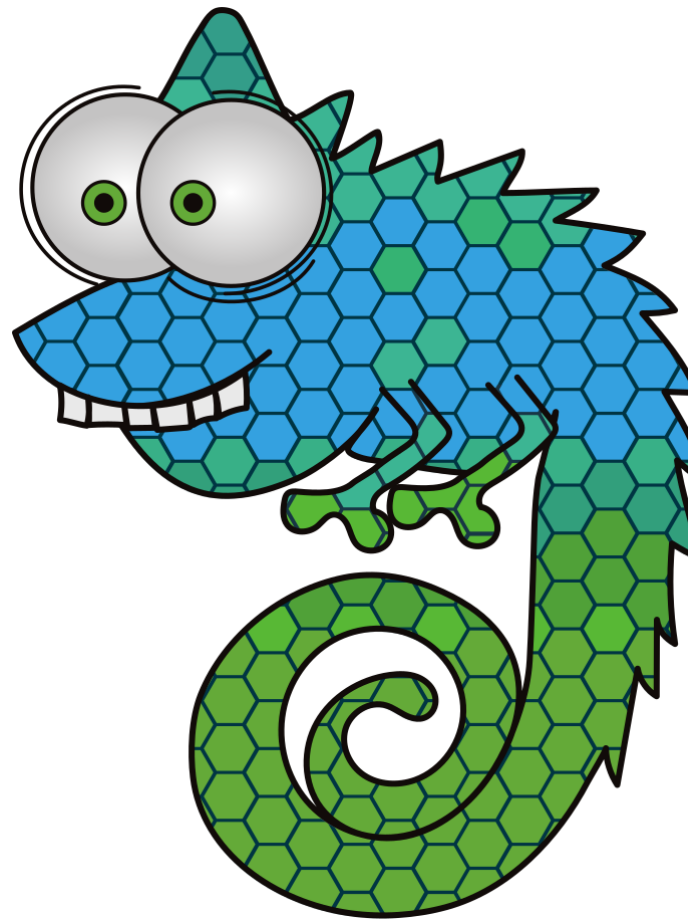




Q&A

THANK YOU
ありがとうございました





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