Licenses

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Licenses

(or How I Learned to Stop Worrying and Love the Code)

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- Computer Engineering lecturer at the ETSIIT-UGR
- I do research in AI for videogames, bio-inspired and distributed algorithms.
- I head the OSLUGR osl.ugr.es
- I like photography, cinema and urban sketching.

What is this talk about?

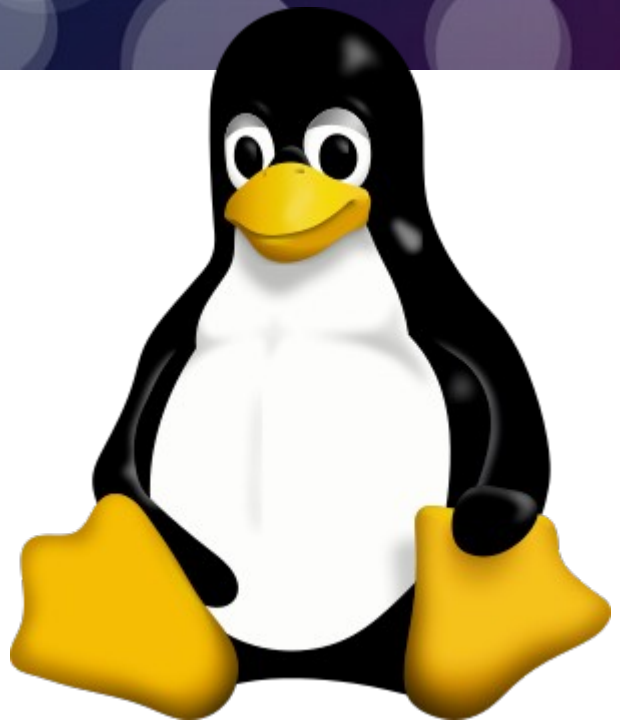
- Licenses
- How to choose a license?
- How to apply a license?
- How to combine licenses?
- FLOSS?

"Tux… in… SPACE!" by L Gnome is licensed under CC BY-SA 2.0

Free Software or Open Source?
FLOSS

https://www.flickr.com/photos/47691521@N07/5392982221

What FLOSS do you know?



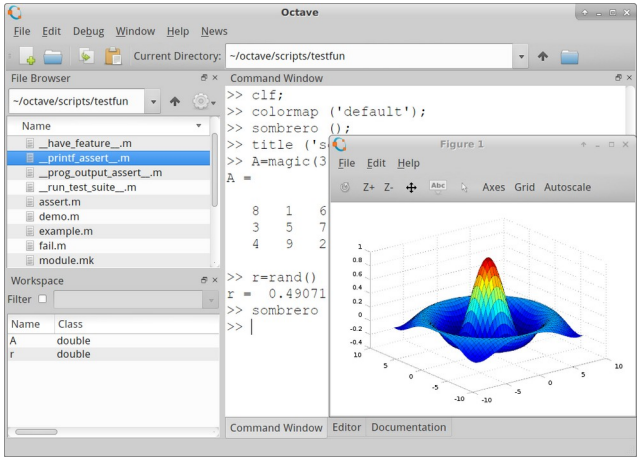
blender®

MySQL™

moodle

LibreOffice
The Document Foundation

FLOSS for Science



Why use/develop FLOSS in academia?

- Share
- Social/ethical responsability
- Independence
- Learning
- Saving
- Standards
- Security

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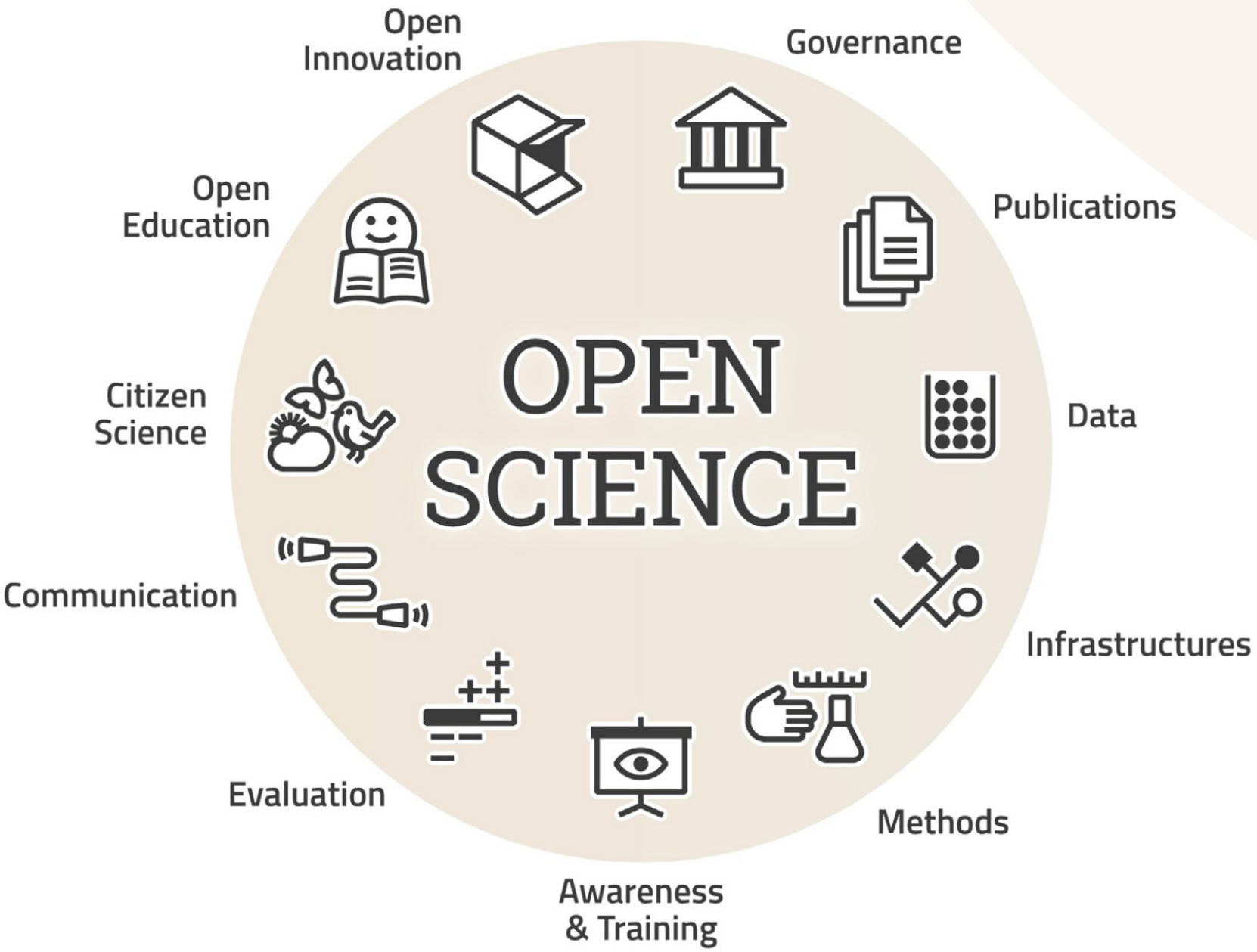

Arqus Alliance/quaint.ch.
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Why release? (outside academia)

- Generates **good development practices**
- Builds **community**
- Generates **example**
- Serves as a **portfolio**

"Portfolio Review (Dec '11)" by VFS Digital Design is licensed under CC BY 2.0

How to release

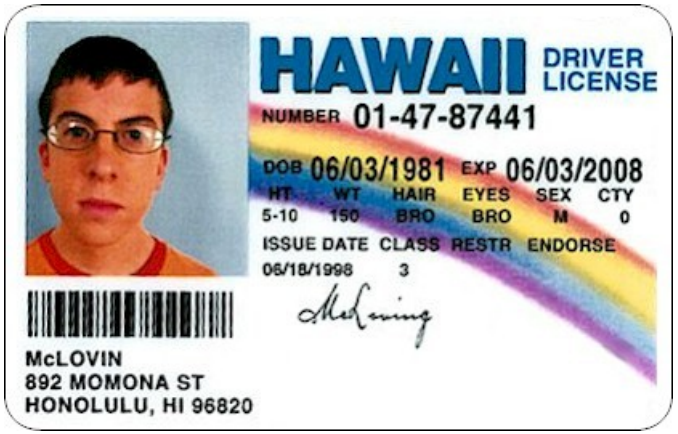
- First, choose an **adequate** License
- Use a forge from the beginning
  - Bitbucket.com
  - Github.com
  - Your own forge
  - Extra: Software Heritage
- Git != Github

"Forging Hammer" by christian.senger is licensed with CC BY-SA 2.0. To view a copy of this license, visit https://creativecommons.org/licenses/by-sa/2.0/

Ok, but should I care about licenses or not?

Licenses

- They are a **contract**
- It is chosen by the person who creates the work
- It can include permissions of use: dates, expiration, territories…
- No license → **all rights are reserved** and it is not Open Source or Free
- Protects the code, not the idea*



Bobo Uzala en Flickr (CC-BY-NC)

Some examples

How to choose a license?

Depending on the community

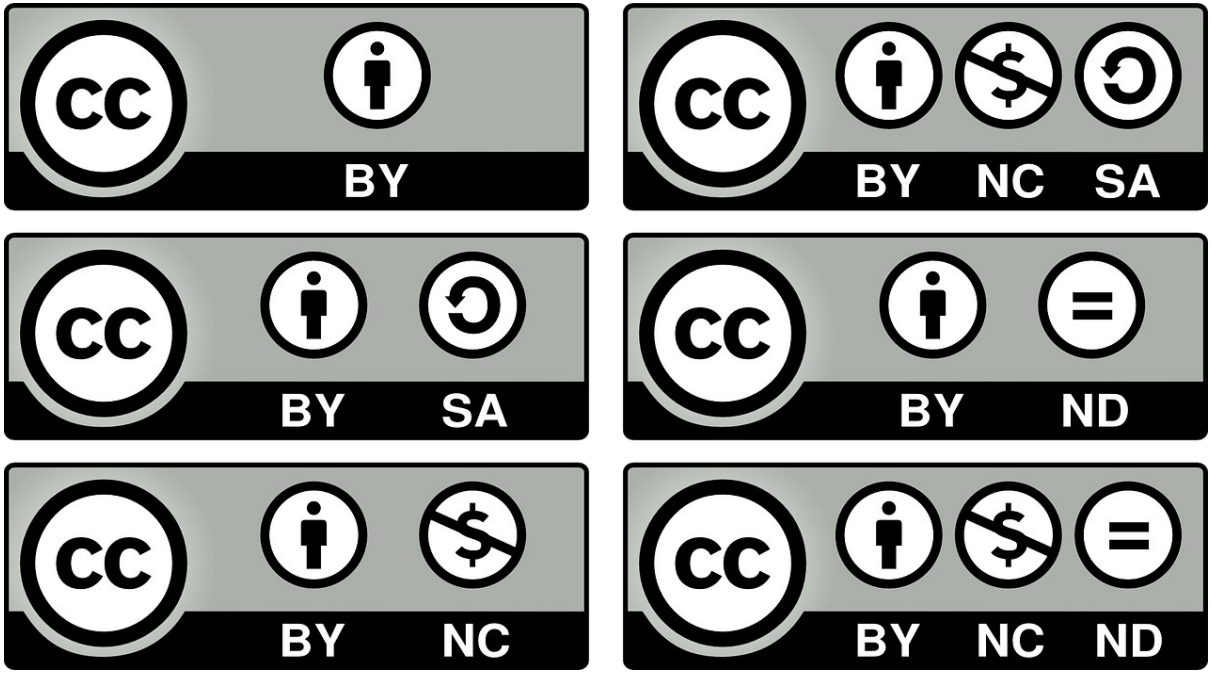
- Some communities have strong preferences for particular licenses.
  - **Apache** → Apache License 2.0
  - **Cloud Native Computing Foundation** → Apache License 2.0
  - **GNU** → GNU GPLv3 for most programs
  - **Npm** → MIT or ISC
  - **OpenBSD** → ISC License
  - **Rust** crates → MIT and Apache License 2.0
  - **WordPress** plugins and themes must be GNU GPLv2 (or later)

Depending on the type to share

- Data and media
- Documentation
- Fonts
- Hardware
- Software

Data and media

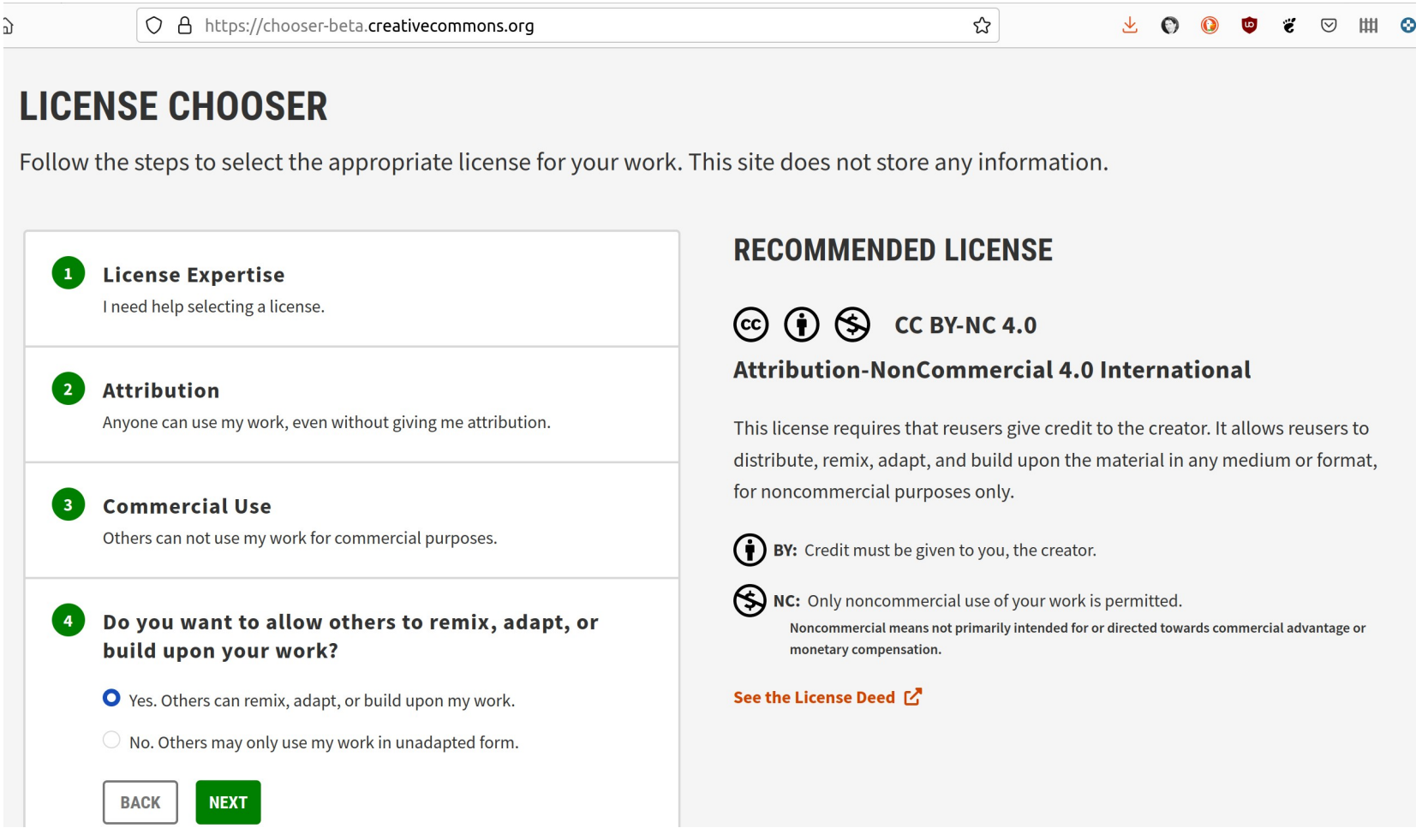
creative commons



- From 4.0 they cannot be used for software!

How to choose a CC License?

- https://chooser-beta.creativecommons.org/



Documentation

- Any FLOSS software license or open license for media
  - (if code is used in documentation specify the specific software license)

Frisky
https://flickr.com/photos/21031300@N02/6631339765/ CC-BY-NC

Fonts

- SIL Open Font License 1.1

Hardware

- Open source hardware is hardware whose design is made publicly available so that anyone can study, modify, distribute, make, and sell the design or hardware based on that design
- https://ohwr.org/project/cernohl/wikis/Documents/CERN-OHL-version-2
- https://ohwr.org/project/cernohl/wikis/faq
  - CERN Open Hardware Licence Version 2 – Permissive
  - CERN Open Hardware Licence Version 2 - Weakly Reciprocal
  - CERN Open Hardware Licence Version 2 - Strongly Reciprocal

Software Licenses

- Open Source of Free Software?

Free Software Foundation

- The freedom to **run the program** as you wish, for any purpose.
- The freedom to **study** how the program works, and change it so it does your computing as you wish. Access to the source code is a precondition for this.
- The freedom to **redistribute** copies so you can help your neighbor.
- The freedom to distribute copies of your **modified** versions to others. By doing this you can give the whole community a chance to benefit from your changes. **Access to the source code is a precondition for this**.
- https://www.gnu.org/licenses/gpl-faq.html

Sam Williams - Taken from the cover of the O'Reilly book w:Free as in Freedom: Richard Stallman's Crusade for Free Software CC BY-SA 3.0

FREE SOFTWARE FOUNDATION

Open Source Initiative

- Free redistribution: freely given or sold.
- Source code: included or freely obtainable.
- Derivative works: redistribution of modifications must be permitted.
- Integrity of author's source code: some licenses may require that modifications be redistributed only as patches.
- No discrimination of persons or groups
- No discrimination of initiative areas: commercial users cannot be excluded.
- The license **cannot require** that any other software that is distributed with the open source software **must also be open source**.
- Technologically neutral license (no one-click acceptance).

https://www.linuxadictos.com/codigo-abierto-y-software-libre-no-es-lo-mismo-pero-importa.html

General Public License

- Permissions:
  - Commercial use
  - Distribution
  - Modification
  - Contributors have right to patent
  - Private use

- Conditions:
  - Reveal the code
  - Copyright and license notice
  - **Keep the same license**
  - Document the changes
- Examples: Ansible, Bash, Gimp

AGLP and LGPL

- If a **modified** version is used to offer a service over a network, the source code must be made available.
- If used (unmodified) via **interfaces**, another license can be used

APACHE

- Permissions:
  - Commercial use
  - Distribution
  - Modification
  - Contributors have right to patent
  - Private use

- Conditions:
  - **No** need to reveal the code (permissive)
  - License and copyright notice
  - No need to keep the same license
  - Document changes
- Examples: Kubernetes, Swift

MIT

- Permissions:
  - Commercial use
  - Distribution
  - Modification
  - Contributors **do not** have right to patent
  - Private use
- Conditions:
  - **No** need to reveal the code (permissive)
  - License and copyright notice
  - No need to keep the same license
  - No need to document changes
- Ejemplos: Babel, .net core, Rails

Choose an open source license

An open source license protects contributors and users. Businesses and savvy developers won't touch a project without this protection.

Which of the following best describes your situation?

I need to work in a community.

Use the **license preferred by the community** you're contributing to or depending on. Your project will fit right in.

If you have a dependency that doesn't have a license, ask its maintainers to **add a license**.

I want it simple and permissive.

The **MIT License** is short and to the point. It lets people do almost anything they want with your project, like making and distributing closed source versions.

Babel, **.NET**, and **Rails** use the MIT License.

I care about sharing improvements.

The **GNU GPLv3** also lets people do almost anything they want with your project, *except* distributing closed source versions.

Ansible, **Bash**, and **GIMP** use the GNU GPLv3.

How to apply a license?

Applying licenses in Zenodo

required

Access right *

- Open Access
- Embargoed Access
- Restricted Access
- Closed Access

Required. Open access uploads have considerably higher visibility on Zenodo.

License *

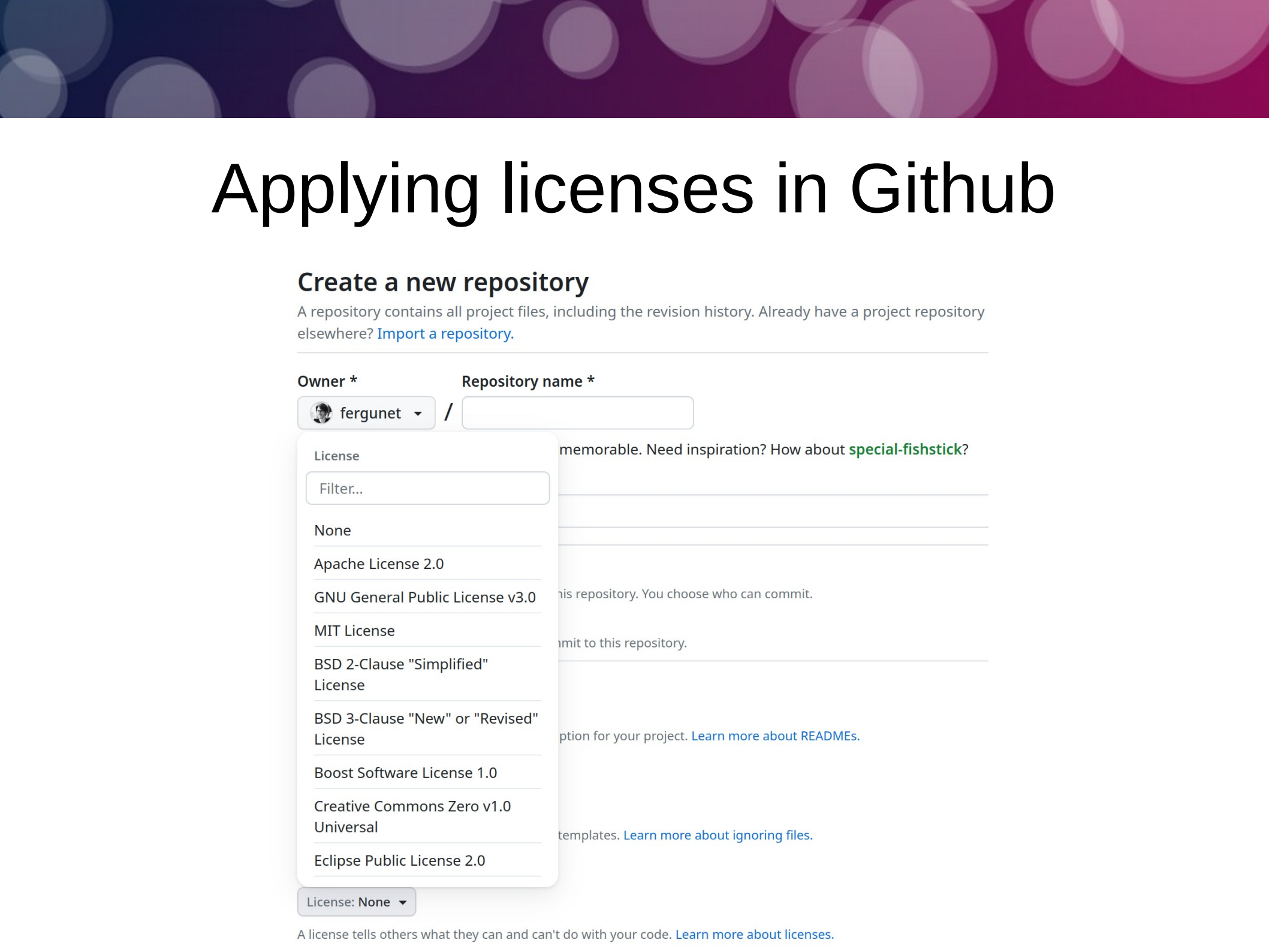
Creative Commons Attribution 4.0 International

Required. Selected license applies to all of your files displayed on the top of the form. If you want to upload some of your files under different licenses, please do so in separate uploads. If you cannot find the license you're looking for, include a relevant LICENSE file in your record and choose one of the *Other* licenses available (*Other (Open)*, *Other (Attribution)*, etc.). The supported licenses in the list are harvested from opendefinition.org and spdx.org. If you think that a license is missing from the list, please contact us.

Applying Software Licenses

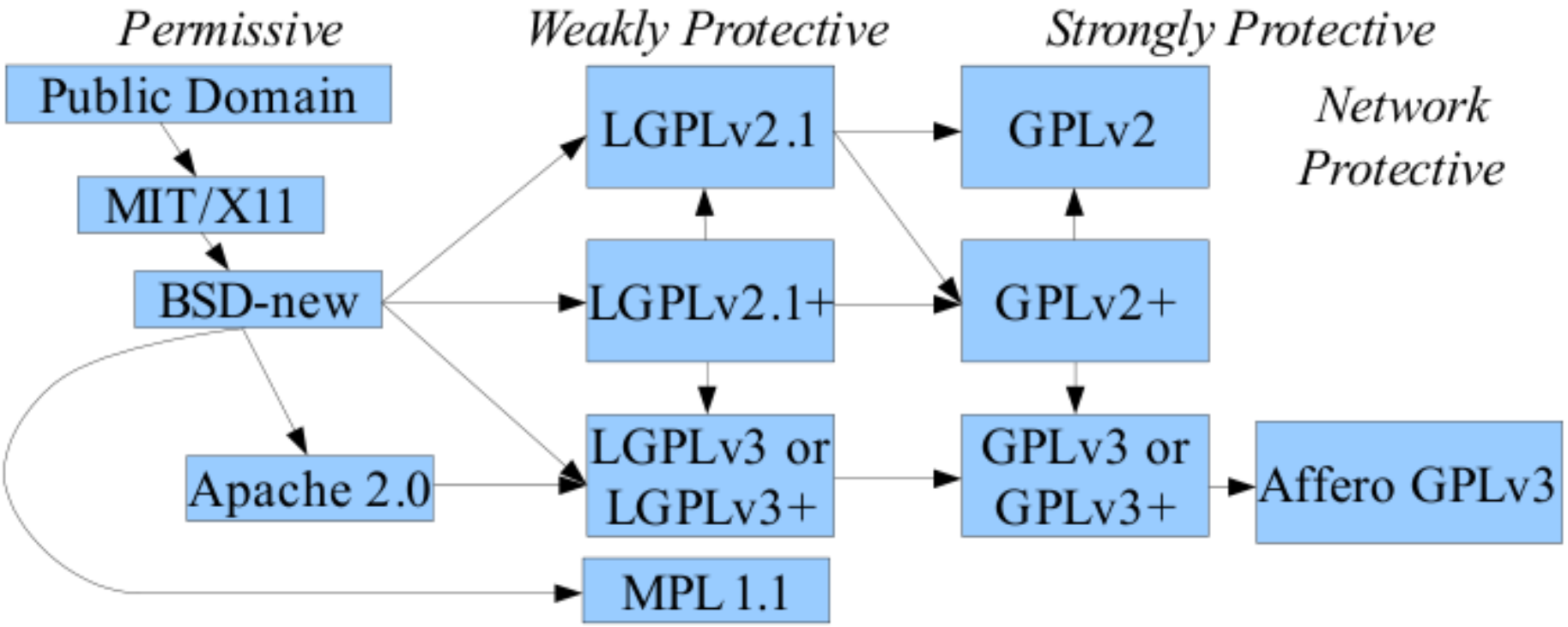
- Usually LICENSE or COPYING file in the root of the project
- Some licenses require document changes (CHANGES.txt)
- Some licenses recommend to add boilerplate notice to the top of each file
  - Tip: configure template in your IDE

Applying licenses in Github



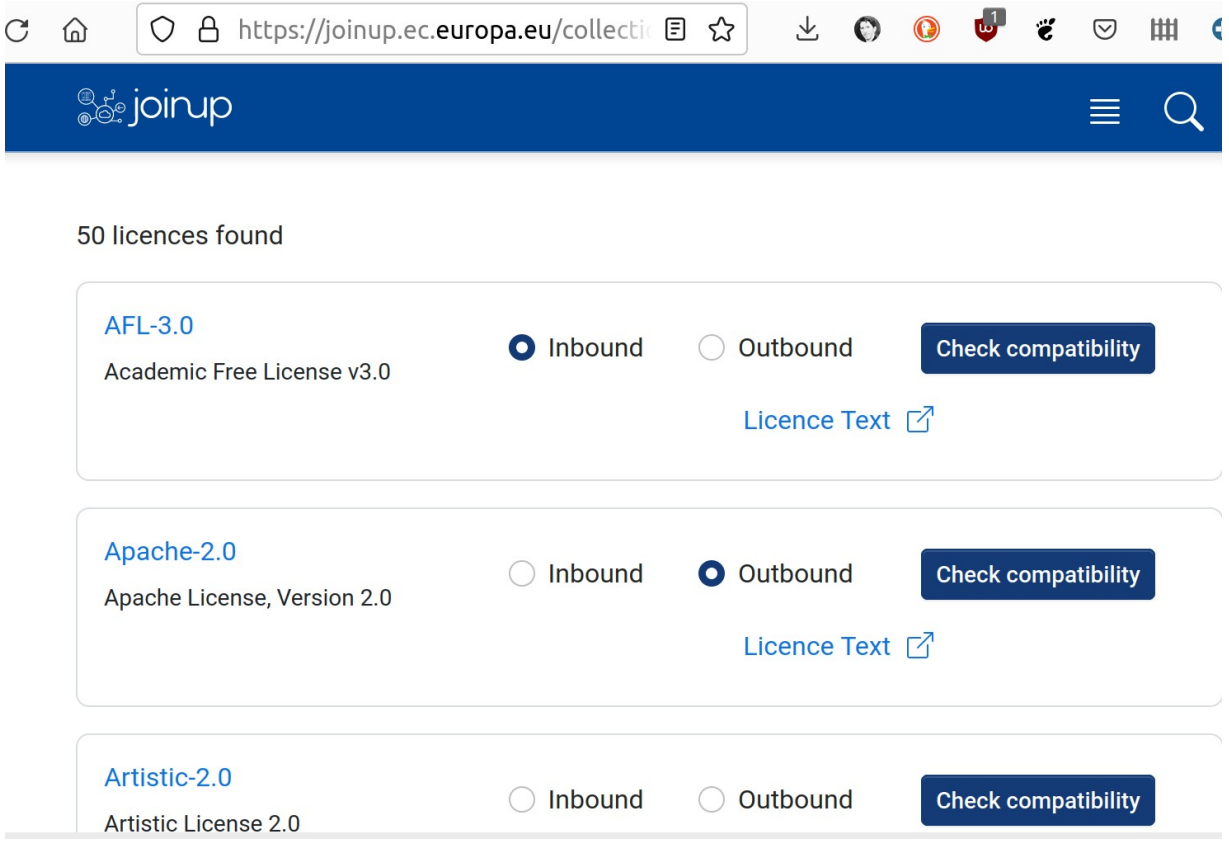
Combining licenses

- https://dwheeler.com/essays/floss-license-slide.html



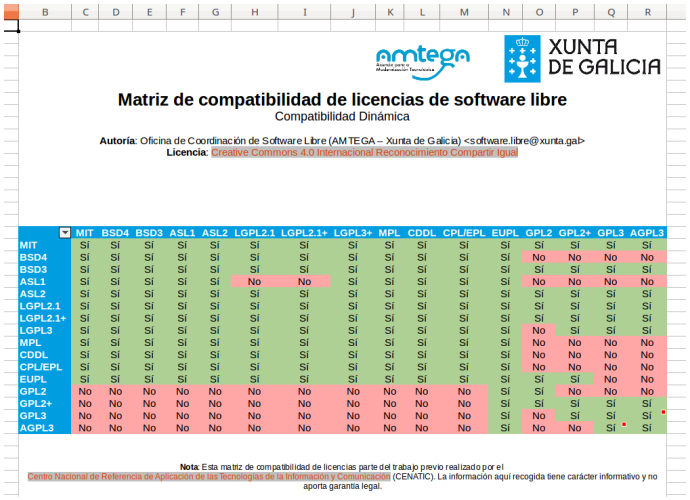
JLA – Compability checker

- https://joinup.ec.europa.eu/collection/eupl/solution/joinup-licensing-assistant/jla-compatibility-checker



What about using several at the same time?

- **Static** compatibility: components are combined at **compilation** time, copied into the application executable.
- **Dynamic** compatibility: components are combined at **execution** time, without being part of the application executable.
- https://www.mancomun.gal/es/documento/matriz-de-compatibilidad-de-licencias-de-software-libre/



amtega

XUNTA DE GALICIA

Matriz de compatibilidad de licencias de software libre

Compatibilidad Dinámica

Autoría: Oficina de Coordinación de Software Libre (AMTEGA – Xunta de Galicia) <software.libre@xunta.gal>
Licencia: Creative Commons 4.0 Internacional Reconocimiento Compartir Igual

	MIT	BSD4	BSD3	ASL1	ASL2	LGPL2.1	LGPL2.1+	LGPL3+	MPL	CDDL	CPL/EPL	EUPL	GPL2	GPL2+	GPL3	AGPL3
MIT	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí
BSD4	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	No	No	No	No
BSD3	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí
ASL1	Sí	Sí	Sí	Sí	Sí	No	No	Sí	Sí	Sí	Sí	Sí	No	No	No	No
ASL2	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí
LGPL2.1	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí
LGPL2.1+	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí
LGPL3	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	No	Sí	Sí	Sí
MPL	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	No	No	No	No
CDDL	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	No	No	No	No
CPL/EPL	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	No	No	No	No
EUPL	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	No	No
GPL2	No	No	No	No	No	No	No	No	No	No	No	Sí	Sí	No	No	No
GPL2+	No	No	No	No	No	No	No	No	No	No	No	Sí	Sí	Sí	Sí	Sí
GPL3	No	No	No	No	No	No	No	No	No	No	No	Sí	No	Sí	Sí	Sí
AGPL3	No	No	No	No	No	No	No	No	No	No	No	Sí	No	No	Sí	Sí

Nota: Esta matriz de compatibilidad de licencias parte del trabajo previo realizado por el Centro Nacional de Referencia de Aplicación de las Tecnologías de la Información y Comunicación (CENATIC). La información aquí recogida tiene carácter informativo y no aporta garantía legal.

Other tools

- License Finder
  - https://github.com/pivotal/LicenseFinder
- Fossology
  - https://www.fossology.org/
  - https://github.com/fossology/fossology
- Qodana (JetBrains)
  - https://blog.jetbrains.com/qodana/2022/05/keep-your-dependency-licenses-in-check/

- *“This information is believed to be correct, but is not legal advice; for formal legal advice, please consult an attorney.”*
  - David A. Wheeler https://dwheeler.com/essays/floss-license-slide.html

More references

- *https://choosealicense.com/*
- *https://www.gnu.org/licenses/gpl-faq.html*
- María Isabel García Arenas: Curso Básico sobre uso docente del Software Libre, 2020 *https://osl.ugr.es/wp-content/uploads/2019/01/Curso-b%C3%A1sico-sobre-uso-docente-del-Software-Libre-Dia.pd*f
- JJ Merelo: Liberar software sin morir en el intento *https://www.slideshare.net/jjmerelo/liberar-software-sin-morir-en-el-intento*
- ARQUS Openness Position Paper *https://zenodo.org/record/5881903*

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Thank you very much!

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