2025 June 6th



## Code sharing

Thomas Denecker CNRS - IFB https://orcid.org/0000-0003-1421-7641











Goals of this session:

- Showcase your work
- Create a release
- Obtain a DOI for the project
- Software Heritage
- Docker image and package hosting
- And more...





# Showcase your work







Remember to choose a licence !

This will determine whether anyone can use, modify, and distribute your code / tool / software...

https://help.github.com/en/articles/licensing-a-repository

- 1. Create a file named "LICENCE"
- 2. GitHub will suggest templates









### GitHub takes care of displaying the information on your repository.

Add a license to your project

Apache License 2.0	A permissive license similar to	the BSD 2-Clause License, but with	a 3rd clause that prohibits others from using	To adopt BSD 3-Clause "New" or
GNU General Public License v3.0	the name of the project or its Permissions	contributors to promote derived proc	ducts without written consent. Conditions	"Revised" License, enter your details. You'll have a chance to review before committing a LICENCE file to a new branch or the
MIT License	Commercial use     Modification     Jistribution	× Liability × Warranty	U License and copyright notice	root of your project.
BSD 2-Clause "Simplified" License	✓ Private use This is not legal advice. Learn	more about repository licenses.		2022
				Full name (i)
BSD 3-Clause "New" or "Revised" License	RSD 2-Clause License			thomasdenecker
Boost Software License 1.0	Copyright (c) Year, Ful	tt name All rights reserved.		Review and submit
Creative Commons Zero v1.0 Universal	Redistribution and use i permitted provided that	in source and binary forms, v t the following conditions are	vith or without modification, are	
Eclipse Public License 2.0	1. Redistributions of s	source code must retain the a	above copyright notice, this list of	
GNU Affero General Public License v3.0	2. Redistributions in b	following disclaimer.	he above copyright notice, this list	
GNU General Public License v2.0	of conditions and t materials provided	he following disclaimer in the with the distribution.	e documentation and/or other	
GNU Lesser General Public License v2.1	3. Neither the name of used to endorse or prior written pormi	of the copyright holder nor th promote products derived for	e names of its contributors may be rom this software without specific	
Mozilla Public License 2.0	THIS SOFTWARE IS PR	OVIDED BY THE COPYRIGHT	HOLDERS AND CONTRIBUTORS	
The Unlicense	"AS IS" AND ANY EXPR TO, THE IMPLIED WARF PARTICULAR PURPOSE HOLDER OR CONTRIBU SPECIAL, EXEMPLARY,	ESS OR IMPLIED WARRANTI RANTIES OF MERCHANTABIL ARE DISCLAIMED. IN NO EV JTORS BE LIABLE FOR ANY I OR CONSEQUENTIAL DAM/	IES, INCLUDING, BUT NOT LIMITED LITY AND FITNESS FOR A VENT SHALL THE COPYRIGHT DIRECT, INDIRECT, INCIDENTAL, AGES (INCLUDING, BUT NOT	
	LIMITED TO, PROCURE	MENT OF SUBSTITUTE GOC	DDS OR SERVICES; LOSS OF USE,	







### Validate and merge with the main branch

thomasdenecker/testPages is licensed under the	Permissions	Limitations	Conditions
"T" BSD 3-Clause "New" or "Revised" License	<ul> <li>Commercial use</li> </ul>	× Liability	License and copyright notice
A permissive license similar to the BSD 2-Clause License, but with a 3rd clause that prohibits others	Modification	× Warranty	
from using the name of the project or its contributors to promote derived products without written	<ul> <li>Distribution</li> </ul>		
consent.	Private use		

This is not legal advice. Learn more about repository licenses.





### Showcase your work - Licence



#### Home

If you publish code without a license, by default:

- Nobody has legal permission to use, modify, or share it, not even for personal or academic use.
- The code is considered "all rights reserved" under copyright law.
- Even open access (e.g. on GitHub) does not mean open source.

This creates uncertainty and discourages reuse, collaboration, and reproducibility—especially in science and open-source communities.

https://choosealicense.com/no-permission/

### **No License**

When you make a creative work (which includes code), the work is under exclusive copyright by default. Unless you include a license that specifies otherwise, nobody else can copy, distribute, or modify your work without being at risk of take-downs, shake-downs, or litigation. Once the work has other contributors (each a copyright holder), "nobody" starts including you.

Even in the absence of a license file, you may grant some rights in cases where you publish your source code to a site that requires accepting terms of service. For example, if you publish your source code in a public repository on GitHub, you have accepted the **Terms of Service**, by which you allow others to view and fork your repository. Others may not need your permission if **limitations and exceptions to copyright** apply to their particular situation. Neither site terms nor jurisdiction-specific copyright limitations are sufficient for the kinds of collaboration that people usually seek on a public code host, such as experimentation, modification, and sharing as fostered by an open source license.

You don't have to do anything to *not* offer a license. You may, however, wish to add a copyright notice and statement that you are not offering any license in a prominent place (e.g., your project's README) so that **users** don't assume you made an oversight. If you're going to accept others' contributions to your non-licensed project, you may wish to explore adding a contributor agreement to your project with your lawyer so that you maintain copyright permission from contributors, even though you're not granting the same.

Disallowing use of your code might not be what you intend by "no license." An open source license allows reuse of your code while retaining copyright. If your goal is to completely opt-out of copyright restrictions, try a public domain dedication instead.

#### For users

If you find software that doesn't have a license, that generally means you have no permission from the creators of the software to use, modify, or share the software. Although a code host such as GitHub may allow you to view and fork the code, this does not imply that you are permitted to use, modify, or share the software for any purpose.

Your options:

- Ask the maintainers nicely to add a license. Unless the software includes strong indications to the contrary, lack of a license is probably an
  oversight. If the software is hosted on a site like GitHub, open an issue requesting a license and include a link to this site. If you're bold and it's
  fairly obvious what license is most appropriate, open a pull request to add a license see "suggest this license" in the sidebar of the page for
  each license on this site (e.g., MIT).
- · Don't use the software. Find or create an alternative that is under an open source license.
- Negotiate a private license. Bring your lawyer.

The content of this site is licensed under the Creative Commons Attribution 3.0 Unported License.

About Terms of Service Help improve this page Curated with V by GitHub, Inc. and You!





A README file is essential for guiding users, documenting the project, encouraging contribution, and promoting development best practices.

Many guides to help you draw it up.







# You can add a CITATION file to your repository to help users correctly cite your software.

### Example of CITATION.cff

```
cff-version: 1.2.0
message: "If you use this software, please cite it as below."
authors:
- family-names: "Lisa"
given-names: "Mona"
orcid: "https://orcid.org/0000-0000-0000"
- family-names: "Bot"
given-names: "Hew"
orcid: "https://orcid.org/0000-0000-0000-0000"
title: "My Research Software"
version: 2.0.4
doi: 10.5281/zenodo.1234
date-released: 2017-12-18
url: "https://github.com/github-linguist/linguist"
```

nths a	
	Cite this repository
	If you use this software in your work, please cite
	it using the following metadata. Learn more
	about CITATION files.
_	APA BibTeX
	APA BibTeX Denecker, T., Khamvongsa-Charbonnier, L.
	APA BibTeX Denecker, T., Khamvongsa-Charbonnier, L.





### Focus on ORCID

**ORCID** (Open Researcher and Contributor ID) is a unique digital identifier assigned to a researcher or academic contributor. It aims to solve the problem of name ambiguity in research, where multiple authors may share the same name or similar names.

	searchers		SIGN IN/REGISTER English V Search C
Thomas DENE	CKER		
https://orcid.org/000	0-0003-14	21-7641 「① 母	> Show record summary
Personal information		Activities	Collapse all
Websites & social links Personal website	>	<ul> <li>Employment (2)</li> </ul>	╤ Sort
Keywords	>	Institut Français de Bioinformatique: Paris, FR	
Computionnal biology		2020-10-01 to present   Ingénieur de recherche Employment	Show more detail
Countries	>	Source: 😁 Thomas DENECKER	
France		Université Paris-Sud: Orsay, Île-de-France, FR	
		2017-10-01 to 2020-09-30   PhD student Employment	Show more detail
		Source: 🕒 Thomas DENECKER	
		Works (8)	= Sort





A code of conduct helps to create a positive and respectful environment where all community members can contribute meaningfully and feel safe.

### Where to find one for your repository ? <u>https://www.contributor-covenant.org/version/2/1</u> /code\_of\_conduct/

CC-BY-SA-4.0 license

0 ∷≣

### **Contributor Covenant Code of Conduct**

#### Our Pledge

We as members, contributors, and leaders pledge to make participation in our community a harassment-free experience for everyone, regardless of age, body size, visible or invisible disability, ethnicity, sex characteristics, gender identity and expression, level of experience, education, socio-economic status, nationality, personal appearance, race, caste, color, religion, or sexual identity and orientation.

We pledge to act and interact in ways that contribute to an open, welcoming, diverse, inclusive, and healthy community.

### **Our Standards**

Examples of behavior that contributes to a positive environment for our community include:

- · Demonstrating empathy and kindness toward other people
- · Being respectful of differing opinions, viewpoints, and experiences
- Giving and gracefully accepting constructive feedback
- · Accepting responsibility and apologizing to those affected by our mistakes, and learning from the experience
- · Focusing on what is best not just for us as individuals, but for the overall community





A CONTRIBUTING file serves as a valuable resource for guiding contributors, clarifying expectations, promoting collaboration, and fostering a positive and inclusive community around the project.

### Documentation

https://docs.github.com/fr/communities/setting-up-your-project -for-healthy-contributions/setting-guidelines-for-repository-contr ibutors

### **Contributing Guidelines**

Pull requests, bug reports, and all other forms of contribution are welcomed and highly encouraged! 👮

#### Contents

- Code of Conduct
- Asking Questions
- Opening an Issue
- Feature Requests
- Triaging Issues
- Submitting Pull Requests
- Writing Commit Messages
- <u>Code Review</u>
- <u>Coding Style</u>
- Certificate of Origin
- Credits

This guide serves to set clear expectations for everyone involved with the project so that we can improve it together while also creating a welcoming space for everyone to participate. Following these guidelines will help ensure a positive experience for contributors and maintainers.

#### U Code of Conduct

Please review our <u>Code of Conduct</u>. It is in effect at all times. We expect it to be honored by everyone who contributes to this project. Acting like an asshole will not be tolerated.

#### Asking Questions

See our <u>Support Guide</u>. In short, GitHub issues are not the appropriate place to debug your specific project, but should be reserved for filing bugs and feature requests.

#### 📥 Opening an Issue

Before creating an issue, check if you are using the latest version of the project. If you are not up-to-date, see if updating fixes your issue first.

#### Reporting Security Issues

Review our Security Policy. Do not file a public issue for security vulnerabilities.





Why?

- Your project is simpler to share and find

Advantages

- Free hosting of static websites
- Able to convert Markdown into a website

Documentations :

- https://pages.github.com/
- <u>https://docs.gitlab.com/user/project/pages/</u>















### Showcase your work - In practice



	鐐 General		GitHub Pages
	Access		GitHub Pages is designed to host your personal, organization, or project pages from a GitHub repository.
	A Collaborators		Source
	🖓 Moderation options	~	GitHub Pages is currently disabled. Select a source below to enable GitHub Pages for this repository. Learn more.
			گ <sup>9</sup> Branch: main → 📄 / (root) → Save
	Code and automation		
	P Branches		Theme Chooser Select a theme to publish your site with a Jekvll theme using the on-pages branch. Learn more.
	🛇 Tags		
	Actions	$\sim$	choose a theme
	🖧 Webhooks		
	Environments		Publish privately to people with read access to this repository
1	💾 Pages		GitHub Pages site.
	Security		
	Ode security and analysis		
	Deploy keys		
	* Secrets	~	
	Integrations		
	88 GitHub apps		
	Email notifications		





### Showcase your work - In practice

<>> Code 😳 Issues 11 Pull requests 💮 Actions 🖽 Projects 🖽 Wiki 🛈 Security 🗠 Insights 🕸 Settings







.

6 C - 6

### Showcase your work - In practice



### Convert Markdown into HTML !

#### # Welcome !

\*\*FAIR\_Bioinfo\*\* - [![DOI](https://zenodo.org/badge/164655551.svg)](https://zenodo.org/badge/latestdoi/164655551)

\*\*Gitbook\*\* - [![](https://img.shields.io/badge/Gitbook-FAIR\_Bioinfo-blue.svg)](https://fair-bioinfo.gitbook.io/fair-bioinfo/)
[![](https://img.shields.io/badge/Github-FAIR\_Bioinfo\_Gitbook-blue.svg)](https://github.com/thomasdenecker/FAIR\_BioinfoGitbook)

[![DOI](https://zenodo.org/badge/197582632.svg)](https://zenodo.org/badge/latestdoi/197582632)

\*\*Docker image\*\* - [![](https://img.shields.io/badge/Docker-FAIR\_Bioinfo-blue.svg)]
(https://hub.docker.com/r/tdenecker/fair\_bioinfo) [![]
(https://images.microbadger.com/badges/image/tdenecker/fair\_bioinfo.svg)]
(https://microbadger.com/images/tdenecker/fair\_bioinfo)

\*\*Licence pour le code\*\* - [![](https://img.shields.io/badge/LICENCE-CeCILL%202.1-brightgreen.svg)]
(https://github.com/thomasdenecker/FAIR\_Bioinfo/blob/master/LICENCE)

\*\*Licence pour le GitBook\*\* [![CC BY-SA 4.0][cc-by-sa-image]][cc-by-sa]

[cc-by-sa]: http://creativecommons.org/licenses/by-sa/4.0/ [cc-by-sa-image]: https://licensebuttons.net/l/by-sa/4.0/88x31.png [cc-by-sa-shield]: https://img.shields.io/badge/License-CC%20BY--SA%204.0-lightgrey.svg

\*\*Bienvenue à FAIR\_bioinfo\*\*

FAIR\_Bioinfo est une formation initialement pensée pour la communauté francophone. En effet, les ressources sont nombreuses concernant la reproductibilité en anglais mais un manque se faisait sentir en français. Vous trouverez tout le contenu du cours présenté dans les différentes sessions (slides en français). Nous proposons aussi la version retranscrite de ces cours au format gitbook en anglais : https://fair-bioinfo.gitbook.io/fair-bioinfo/

\*FAIR\_Bioinfo is a training course initially designed for the French-speaking community. Indeed, there are many resources concerning reproducibility in English but there was a lack in French. You will find all the course content presented in the different sessions (slides in French). We also offer the transcribed version of these courses in gitbook format in English: https://fair-bioinfo.gitbook.io/fair-bioinfo/\*

\*\*Informations pratiques\*\*

- Quand ? : le dernier vendredi après midi de chaque mois (sauf juillet à définir), rdv 12h30
- Durée ? : 1h30 (questions incluses)
- Lieu ? : Salle de conférence A.Kalogeropoulos, b. 400, campus Orsay

\*\*Objectifs\*\*

L'objectif est de proposer et d'utiliser un panel d'outils permettant la réalisation d'un projet complet de bio-info en partant de rien et aboutissant à la création d'un conteneur (technologie Docker). Le partage, la valorisation et l'analyse dynamique des données seront inclus dans le panel.

FAIR correspond à l'acronyme anglais "Findable, Accessible, Interoperable, & Reusable", initialement défini pour les données mais que nous détournons ici pour leurs protocoles d'analyse.

Le projet support est une étude "d'expression différentielle de gènes" à partir de données RNAseq d'O.tauri.



### Welcome !

FAIR\_Bioinfo - 001 10.5281/zenodo.5105349 Gitbook - Gitbook FAIR Bioinfo Gitbook - D01 10.5281/zenodo.3624622 Docker image - Docker iZAIR Bioinfo Licence pour le code - LiCENCE GodiL 2.1 Licence pour le GitBook - 😳 O O

#### Bienvenue à FAIR\_bioinfo

FAIR\_Bioinfo est une formation initialement pensée pour la communauté francophone. En effet, les ressources sont nombreuses concernant la reproductibilité en anglais mais un manque se faisait sentir en français. Vous trouverez tout le contenu du cours présenté dans les différentes sessions (slides en français). Nous proposons aussi la version retranscrite de ces cours au format gitbook en anglais : https://fair-bioinfo.gitbook.io/fair-bioinfo/

FAIR\_Bioinfo is a training course initially designed for the French-speaking community. Indeed, there are many resources concerning reproducibility in English but there was a lack in French. You will find all the course content presented in the different sessions (slides in French). We also offer the transcribed version of these courses in gitbook format in English: https://fair-bioinfo.gitbook.io/fair-bioinfo/

#### Informations pratiques

- Quand ? : le dernier vendredi après midi de chaque mois (sauf juillet à définir), rdv 12h30
- · Durée ? : 1h30 (questions incluses)
- Lieu ? : Salle de conférence A.Kalogeropoulos, b. 400, campus Orsay





Also works directly from HTML

- 1. Create a folder named "docs" main file must be named index.html
- "Settings" → "Options" → "GitHub Pages"

### Example :

https://ifb-elixirfr.github.io/Wasm4Learn/

3 General		GitHub Pages		
ccess		GitHub Pages is designed to host your personal, organization, or project pages from a GitHub repository.		
<ul> <li>Collaborators and teams</li> <li>Moderation options</li> </ul>	~	Your site is live at https://ffb-elixirfr.github.io/Wasm4Learn/		
ode and automation				
Branches		Build and deployment		
Tags		Source		
Rules	~	GitHub Actions -		
) Actions	~	Your site was last derived to the nithub-names environment by the Derive Nivt site to Pages workflow		
Models	Preview	Learn more about deploying to GitHub Pages using custom workflows		
Webhooks				
Environments		Custom domain		
Pages		configuring custom domains.		
Custom properties		Save Remove		
scurity		Enforce HTTPS		
Advanced Security		<ul> <li>Required for your site because you are using the default domain (ifb-elixirfr.github.io)</li> </ul>		
Deploy keys		HTTPS provides a layer of encryption that prevents others from snooping on or tampering with traffic to your site.		
Secrets and variables	~	When HTTPS is enforced, your site will only be served over HTTPS. Learn more about securing your GibHub Pages site with HTTPS.		
		Visibility (GitHub Enterprise)		
teorations		With a Citibule Externation account, you can restrict access to your Citibule Branes site by publishing it educately. You can		
GitHub Apps		with a uthub Enterprise account, you can restrict access to your uthub Pages site by publishing it privately. You can use privately published sites to share your internal documentation or knowledge base with members of your enterprise.		
GitHub Apps		use privately publicle Cherchard and for the 20 day is a result of the second day of		
tegrations GitHub Apps Email notifications		truit of our our help hele account, you can track be set your on the progenetic set of polarising is privately in our enterprise, you can try Github Enterprise risk-free for 30 days. Learn more about the visibility of your Github Pages site.		





# Release







### Goal

provide users with a version of your code that has been fixed in time and labelled. All the steps are detailed here:

https://help.github.com/en/articles/creating-releases







### Make a release







Release



Semantic of a release number

### 1.0.0

### MAJOR.MINOR.PATCH

**MAJOR** : changes not backwards-compatible

**MINOR** : new/modified functionalities, backwards-compatible

**PATCH** : bug fixes, backwards-compatible More details : https://semver.org/









### First release for test page

First release	Compare 👻 🖉 🗓
thomasdenecker released this now ▷ 1.0.0 -> cf7fd52 ②	
First release	
▼ Assets 2	
Source code (zip)	13 minutes ago
Source code (tar.gz)	13 minutes ago





# Semantic-release





### Semantic-release





semantic-release automates the whole package release workflow including: determining the next version number, generating the release notes, and publishing the package.

https://semantic-release.gitbook.io/semantic-release



https://medium.com/@gordon.messmer/semantic-releases-part-1-an-example-process-7b99d6b872ab





Why?



### Releases

### Changelog file

v1.0.0-dev.21	Edit release	Changelog
✓ Assets 4		All notable changes to
د Source code (zip) ک		
B Source code (tar.gz) 문		1.0.0-dev.43
전 Source code (tar.bz2) 문		Feeturee
		reatures
📋 v1.0.0-dev.21-evidences-7681182.json 🖸 🚥 323e7949 🛱		<ul> <li>Add all members</li> </ul>
O Collected 2 months ago		1 0 0-dev 42
1.0.0-dev.21 (2024-02-02)		1.0.0 000.42
Features		Features
		<ul> <li>Implement the set</li> </ul>
add a slug property to node types and create NodeTypeCollection model (1f687f2)		
<ul> <li>create a history field to keep track of the last_edited_by and last_edited_time in Node objects (1833827)</li> <li>create figurae for Node time (hero19/c2)</li> </ul>		1.0.0-dev.41
- create node and node type models (774c6d1)		
create node type serializer and endpoints (dda3946)		Features
create the node serializers and endpoints (392384e)		<ul> <li>add wokspace me</li> </ul>
Bug Fixes		1.0.0-dev.40
<ul> <li>bypass python 3.11 warning concerning system package break when using pip outside of venv (c69d59f)</li> </ul>		
		Features

All nota	ble changes to this project will be documented in this file. See Conventional Commits for commit guidelines.	
1.0.	0-dev.43 (2024-04-08)	
Featu	res	
• Ad	d all members of the parent node when creating a node (868375f)	
1.0.	0-dev.42 (2024-04-08)	
Featu	res	
• Imp	element the serializer and endpoints for Workspace (a35f17c)	
1.0.	0-dev.41 (2024-04-08)	
Featu	res	
• ad	d wokspace member model (396a4c9)	
1.0.	0-dev.40 (2024-04-08)	
F		







All you have to do is write your commits following the Conventional Commits

https://www.conventionalcommits.org/en/v1.0.0/

<type>[optional scope]: <description>

[optional body]

```
[optional footer(s)]
```

Example

feat: allow provided config object to extend other configs







# Obtain a DOI





**Digital Object Identifier** 

Reference system to cite an object (A GitHub project in our case)



https://docs.github.com/en/repositories/archiving-a-github-repository/referencing-an d-citing-content





Obtain a DOI

- 1. Sign in to Zenodo
  - With your GitHub account
  - With your ORCID account (add a "Linked account" to GitHub afterwards)
- 2. Go to the Settings page ! GitHub tab

	🛔 Profile
	🔩 Change password
	Security
	𝒫 Linked accounts
Browse	Applications
	A Shared links
COVID-19) or the discovery of info	O GitHub
	(€ Log out







3. In the list below, find the project you want to link to Zenodo. Flip the switch.

O thomasdenecker/testPages

OFF

- 4. Create a new release
- 5. Et voilà !









### You can add the doi badge in your READ ME

### **DOI Badge**

This badge points to the latest released version of your repository. If you want a DOI badge for a specific release, please follow the DOI link for one of the specific releases and grab badge from the archived record.

Markdown

[![DOI](https://zenodo.org/badge/499069909.svg)](https://zenodo.org/bad

reStructedText

.. image:: https://zenodo.org/badge/499069909.svg
 :target: https://zenodo.org/badge/latestdoi/499069909

HTML

<a href="https://zenodo.org/badge/latestdoi/499069909"><img src="https:

Image URL

https://zenodo.org/badge/499069909.svg

Target URL

https://zenodo.org/badge/latestdoi/499069909







# Archive your code





Software Heritage is an international initiative to collect, preserve, and share all publicly available source code.

Its mission is to ensure that software, as a key part of our scientific and technological heritage, remains accessible over time.

By archiving millions of projects from platforms like GitHub, GitLab, and others, Software Heritage enables long-term reproducibility, transparency, and traceability in science and industry.

Learn more: softwareheritage.org









Select below a	ype of object currer	ntly browsed in order to display its associated SWHID and permalink.	
director	/> revision	I snapshot	
			Iframa ambadding
👋 archived	repository 💸 archiv	swn:1:dir://41ace/6d41fbddea6c5bf21/ce5b2912be9eer	mameennbedding
swh:1:di	repository archiv	ddea6c5bf217ce5b2912be9eef;	inanie embedding
swh:1:di origin=h visit=swl	<pre>repository archiv :7741ace76d41fb tps://github.com :1:snp:0bf1f6ac</pre>	ddea6c5bf217ce5b2912be9eef; m/IFB-ElixirFr/PIPprofileR; c0b0de672e805304ea0a43818fe00f8d;	manie embedding
swh:1:di origin=h visit=swl anchor=sw	repository archiv :7741ace76d41fb tps://github.com :1:snp:0bf1f6ac h:1:rev:83903830	ddea6c5bf217ce5b2912be9eef; m/IFB-ElixirFr/PIPprofileR; c0b0de672e805304ea0a43818fe00f8d; 044c427594c1d64e270244b783d25bf6d	mane embedding





# Go further with Git\*...





CI/CD is a development practice that automates code integration, testing, and deployment.

- Continuous Integration (CI): Automatically tests and integrates code changes to detect issues early.

GitLab

 Continuous Deployment (CD): Automatically deploys tested code to production or staging environments.

Both GitHub Actions and GitLab CI/CD provide built-in tools to set up pipelines, run tests, and deploy applications—helping teams release faster, more reliably, and with less manual work.









### https://docs.github.com/en/packages

### hello-world-npm 1.0.2 (Latest version

>_ Install from the command line:	Learn m
\$ npm install @codertocat/hello-world-npm@1.0.2	
< > Install via package.json:	
"@codertocat/hello-world-npm": "1.0.2"	



#### About this package

#### hello-world-npm

This is a simple npm package that demonstrates the GitHub Package Registry.

#### Installation

Before installing, make sure to authenticate with GitHub Package Registry or using a .npmrc file. See "Configuring npm for use with GitHub Package Registry."

\$ 1	npm	install	@codertocat/hello-world-npm
------	-----	---------	-----------------------------

Or add this package to your package.json file:

"dependencies": {
 "@codertocat/hello-world-npm": "1.0.0"
}

#### Usage

const myPackage = require('@codertocat/hello-world-npm');
myPackage.helloWorld();

### 

Sp 1.0.2	
Assets	
hello-world-npr npm.tgz	n-1.0.2-
Download activit	у
Download activit	y 33
Download activit Total downloads Last 30 days	y 33
Download activit Total downloads Last 30 days Last week	y 33

Recen	Recent versions					
1.0.2 o	n 10 May 2019					

1.0.1 on 10 May 2019 1.0.0 on 10 May 2019







#### Working with a GitHub Packages registry

Learn how to use a supported GitHub Packages registry.

#### Working with the Container registry

You can store and manage Docker and OCI images in the Container registry.

#### Working with the Docker registry

The Docker registry has now been replaced by the Container registry.

#### Working with the RubyGems registry

You can configure RubyGems to publish a package to GitHub Packages and to use packages stored on GitHub Packages as dependencies in a Ruby project with Bundler.

#### Working with the npm registry

You can configure npm to publish packages to GitHub Packages and to use packages stored on GitHub Packages as dependencies in an npm project.

#### Working with the Apache Maven registry

You can configure Apache Maven to publish packages to GitHub Packages and to use packages stored on GitHub Packages as dependencies in a Java project.

#### Working with the Gradle registry

You can configure Gradle to publish packages to the GitHub Packages Gradle registry and to use packages stored on GitHub Packages as dependencies in a Java project.

#### Working with the NuGet registry

You can configure the dotnet command-line interface (CLI) to publish NuGet packages to GitHub Packages and to use packages stored on GitHub Packages as dependencies in a .NET project.

#### Migrating to the Container registry from the Docker registry

GitHub will migrate Docker images previously stored in the Docker registry on GitHub to the Container registry.

### Packages (ie: python)

Package Registry <sup>(2)</sup> 43 Packages	٢
Filter results	$\left[ \mathbf{Q} \right] \left[ \begin{array}{c} \mathbf{Published} \ \mathbf{v} \end{array} \right] \mathbf{F} \right]$
20 packages	Delete selected
D madbot-api	\$ <b>1</b> dev ∽ <u>08887577</u> ि
1.0.0.dev43 - PyPi	Published by thomasdenecker, 1 day ago
Discrete madbot-api	11 dev ↔ a35f17c2 🛱
1.0.0.dev42 · PyPi	Published by thomasdenecker, 1 day ago
Discrete madbot-api	13 dev ↔ 3968469b 🙃 🗄
1.0.0.dev41 · PyPl	Published by thomasdenecker, 2 days ago
□ madbot-api	<b>î 1 dev ↔ a2aa0/77</b> 🛱
1.0.0.dev40 - PyPI	Published by thomasdenecker, 2 days ago

### Container (ie: docker)

Container Registry © 1Image repository © Cleanup is not scheduled.	CLI Commands 🗸 🛞
Filter results	Q Updated v 4F
···· madbot-api (β) 43 tags	Û





### Project management









DctoArcade Invaders			I~ II	GitLab Community Edition	GitLab.org > GitLab Community Edition > Milestones > Backlog			21% complete	
Controlled Intelecto     Intelling     The Plan     Readmap     + New view      Not Standap     Completed     The Plan     Completed     Completed     The Plan     Completed     The Plan     Completed     Completed     The Plan     Completed     Completed     The Plan     Completed     The Plan     Completed     Completed     The Plan     Completed     Com				습 Overview ⓒ Repository	Open Milestone		Edit Promote Close milestone Delete	Start date	Edi
					Backlog			Due date	Edi
This work hasn't started yet	We're working through the details	Ongoing development	Shipped!	U/ Issues 10,008	Issues that we want to do, but are not planned right now.			No due date	
High 10 Work on this right away.				List Boards	Issues 1475 Merge Requests 12 Participants 8	6 Labels 164		Open: 1163 Closed: 312	New issue
OctoArcade #10	OctoArcade #42 Creative design update to aliens for variety	OctoArcade #19 Updates to alien, beam, and cannon sprites	OctoArcade #42 Engine prototype (physics, rendering)	Labels Service Desk	Unstarted Issues (open and unassigned) 1,104	Ongoing Issues (open and assigned) 59	Completed Issues (closed) 312	Total issue weight 405	
OctoArcade #183	OctoArcade #79     Alpha go-no-go meeting	Needs Design     OctoArcade #3     New start screen and multiplayer selection     Needs Design	OctoArcade #48 Kernal updates	Octowrade #48         Milestones           armal updates         1) Merge Requests         (92)           © Circ/Arman         (92)         (92)           V Biomant         1         Version	Navigation dot for project issue boards #30080 (Betwer20) (Scotasto (Urresto) entrol (Betwer20) (Scotasto (Urresto) Reduce SQL timings of Projects::MergeRequestSCentroller#show to a B9th percentile of less than 2001 milliseconds	Newly created issue on a board can't set milestone #40644 Deliverable Discussion (boards)	Projects:::MergeRequests/Controller#show is slow due to SQL #27166 (AS2 Det/webbs) ("iscussion" (active::::::::::::::::::::::::::::::::::::	Total issue time spent No time spent	
Interviews with media outlets OctoArcade #45	OctoArcade #12     Easter egg with high score unlocking a new paid texture gen to					Load issue page comments in chunks		Merge requests 12 Open: 4 Closed: 7 Merg	ged: 1
Save score across levels	iere un nap s			🍄 Settings	W37814 (AP3) Deliverable Discussion (OKR-DB) backend blocked database serformance	(136301 Deliverable Discussion in dev UX ready (feature proposal (frontend) (issues performance © ©	CE->EE conflicts #23864 (Deliverable Edge (meta)	Reference: gitlab-org/gitlab	o-ce ⊪
OctoArcade #38	OctoArcade #112	OctoArcade #110     Post launch marketing materials			Pipelines always visible regardless of visibility settings     #34708 CIAD Deliverable SI2 birdond	Performance for MR Page With Many Comments #36258 (Deliverable) (Discussion) (frontend)	Standardize the settings pages views #22210 (Deliverable) (UX) (Instrum proposal) (settings)		
movements	OctoArcade #183     Nyancat flying easter egg	Need help			Add RuboCop cop to disallow update_column_in_batches on large tables	Add some way to mock and spy on default ES modules	Breadcrumb incorrect when creating new group label #42909 Community Contribution Dispusion		
	OctoArcade #145     OctoArcade #145     OctoArcade #145	Tweak level environments			#34149 (AP2 (Deriverable) Edge (evailability) (backstage) (database) static analysis	(rontend) (rest) (webpack) @ Move pending project members to their own table	Copy/paste of bulket list adds newlines		
	OctoArcade #3     New start screen and multiplayer selection	Alien noise renders			Send ConvDev Index data to GitLab with dynamic leader score #33591 Deliverable Discussion (convdev)	#30704 (Deliverable) (In dev (Platform) bockend (detablese) (performance) (achema redesign (	#41793 Discussion bog (markdown) Boards stay empty if filter it on a milestone that contains "+"		
	Needs Design			< Collapse sidebar	API: Allow admins to search users by IP	Real-time emoji award updates	#41715 Discussion boards bug frontend		











.

GitHub Codespaces gets you up and coding faster with fully configured, secure cloud development environments native to GitHub.







GitHub Copilot is an AI-powered coding assistant developed by GitHub and OpenAI. It suggests entire lines or blocks of code directly in your editor, based on natural language prompts or partial code.









# Thank you for your attention !









