Codefair: Make Biomedical Research Software FAIR Without Breaking a Sweat

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What is FAIR?

The **FAIR (Findable, Accessible, Interoperable, Reusable) Principles** are high-level instructions to make research outcomes reusable

FAIR Principles for Research Software (FAIR4RS Principles):

- F1. Software is assigned a globally unique and persistent identifier.
- F2. Software is described with rich metadata.
- Etc.

https://doi.org/10.1038/s41597-022-01710-x

How to Make Research Software FAIR?

The **FAIR Biomedical Research Software (FAIR-BioRS) Guidelines** are minimal, actionable guidelines for making software FAIR

- ❏ Include a license
- ❏ Include codemeta.json and CITATION.cff metadata files
- ❏ Archive each version of your software, e.g. on Zenodo
- ❏ Etc.

https://doi.org/10.1038/s41597-023-02463-x

What Are the Challenges?

Lack of awareness/training

- What is FAIR?
- What is a codemeta.json file?
- What is a CITATION.cff file?

Time consuming

For each release, update release date, version number, and authors in
- codemeta.json
- CITATION.cff
- CHANGELOG
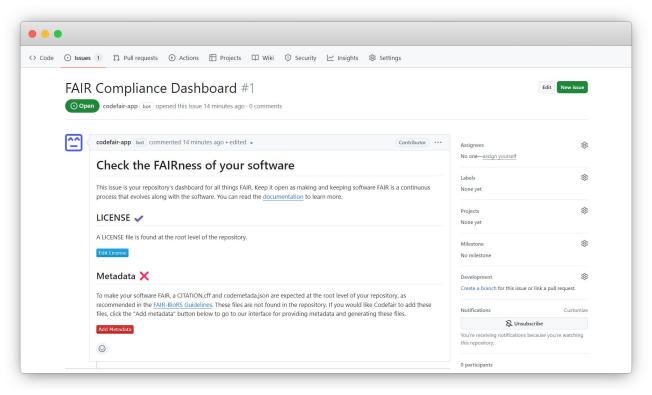- Archival repository metadata

Solution: Codefair

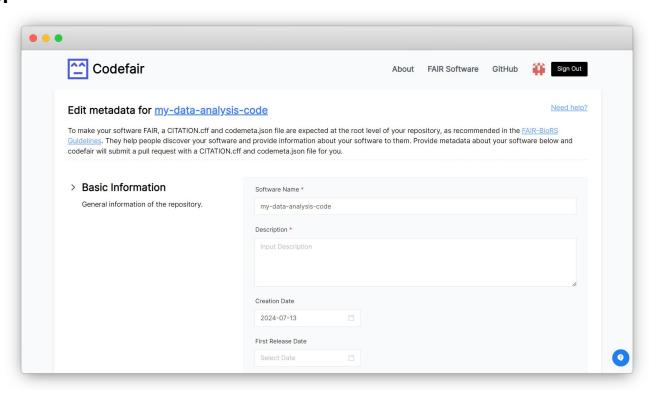**Codefair is a free and open source GitHub app that acts as your personal assistant for making software FAIR**

① **Install** codefair from the GitHub marketplace (codefair.io)

② **Develop** your software as usual from GitHub

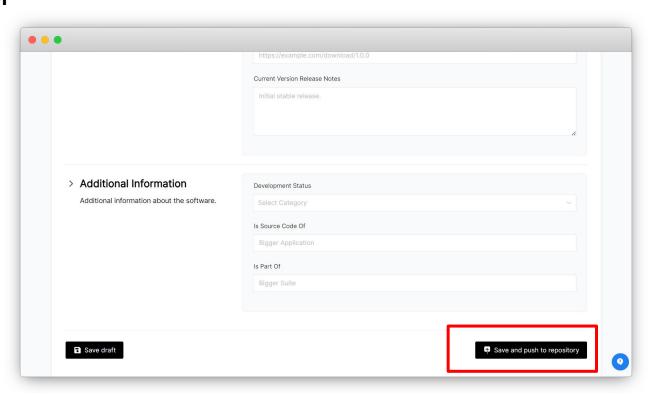**③** **Track** and address FAIR compliance issues through the Codefair GitHub issue

Solution: Codefair

Codefair issue dashboard

Solution: Codefair

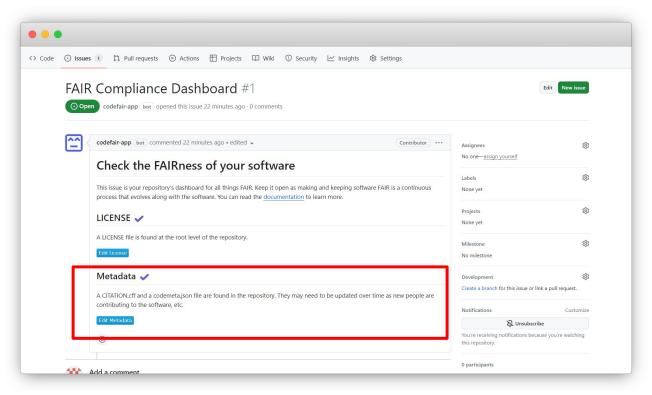## Codefair UI

Solution: Codefair

Codefair UI

Solution: Codefair

Codefair issue dashboard

Future Work

More features to make software FAIR (code formatting, one-click archival on Zenodo, bio.tools registration, etc.)

Features to support researchers beyond just FAIR (software quality, security, etc.)

Need your support - go to codefair.io and try it out!

Thank You!

codefair.io

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*Find these slides and
all resources here* ➡️

bit.ly/codefairBOSC