INVENIO RDM Dev Track!

Turn-key Research Data Management repository

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What's the purpose?

- Environments

- Up and running instance

- Plugins and Extensions

- Collaboration guidelines

- Working groups

- Code!

CERN

2

How do you work?

Containers?

Pipx?
Pipenv?

Virtual envs?

OS?

Warm up!

https://github.com/ppanero/invenio-rdm-extension-demo/wiki

Environment

- Hey this is **biased**!

- Create a virtual env (e.g. with <u>virtualenvwrapper</u>)

  - Activate it

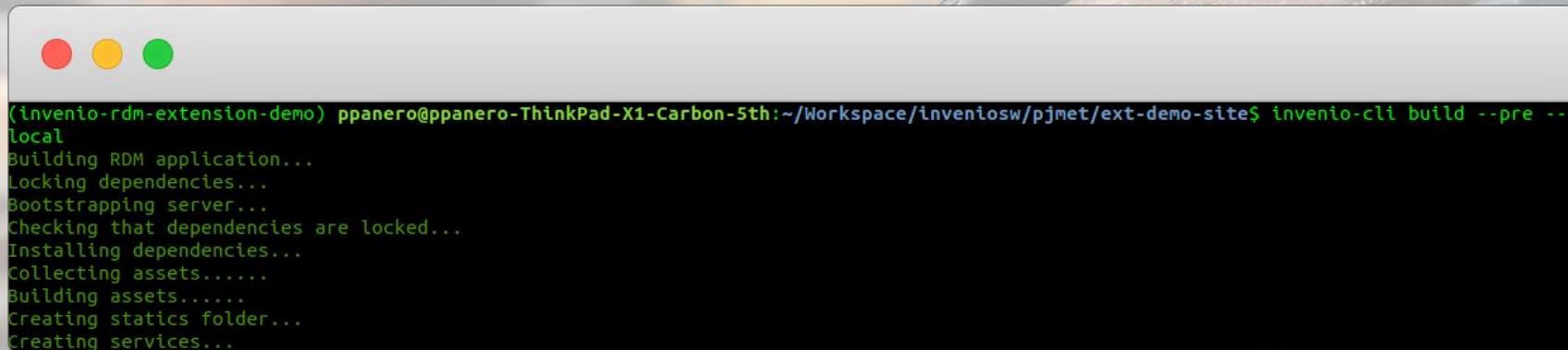- Unset *PIPENV_IGNORE_VIRTUALENVS*

- Install `invenio-cli` there

Development!

- Initialize FS


```
(invenio-rdm-extension-demo) ppanero@ppanero-ThinkPad-X1-Carbon-5th:~/Workspace/inveniosw/pjmet$ invenio-cli init --flavour=RDM
Initializing RDM application...
You've downloaded /home/ppanero/.cookiecutters/cookiecutter-invenio-rdm before. Is it okay to delete and re-download it? [yes]:
project_name [My Site]: Ext Demo Site
project_shortname [ext-demo-site]:
project_site [ext-demo-site.com]:
github_repo [ext-demo-site/ext-demo-site]:
description [Invenio RDM Ext Demo Site Instance]:
author_name [CERN]:
author_email [info@ext-demo-site.com]:
year [2020]:
Select database:
1 - postgresql
2 - mysql
3 - sqlite
Choose from 1, 2, 3 [1]:
Select elasticsearch:
1 - 7
2 - 6
Choose from 1, 2 [1]:
-------------------------------------------------------------------------------

Generating SSL certificate and private key for testing....
Can't load /home/ppanero/.rnd into RNG
140211886014912:error:2406F079:random number generator:RAND_load_file:Cannot open file:../crypto/rand/randfile.c:88:Filename=/home/ppaner
o/.rnd
Generating a RSA private key
.............................................................................................................+++++
....................+++++
writing new private key to 'docker/nginx/test.key'
-----
-------------------------------------------------------------------------------
Creating logs directory...
```

6

Development!

- Install (build)


```
(invenio-rdm-extension-demo) ppanero@ppanero-ThinkPad-X1-Carbon-5th:~/Workspace/inveniosw/pjmet/ext-demo-site$ invenio-cli build --pre --local
Building RDM application...
Locking dependencies...
Bootstrapping server...
Checking that dependencies are locked...
Installing dependencies...
Collecting assets......
Building assets......
Creating statics folder...
Creating services...
```

Development!

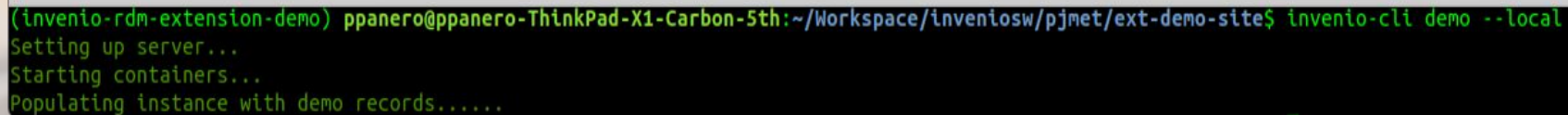- Install (assets) ← Known issue, it should happen with "*build*"

Development!

- Services (setup)


```
(invenio-rdm-extension-demo) ppanero@ppanero-ThinkPad-X1-Carbon-5th:~/Workspace/inveniosw/pjmet/ext-demo-site$ invenio-cli setup --local
Setting up environment for RDM application...
Setting up server...
Starting containers...
Creating database......
Creating indexes......
Creating files location......
Creating admin role......
Assigning superuser access to admin role......
```
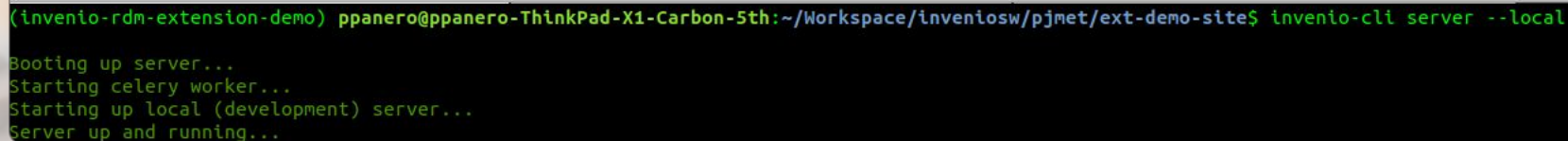
Development!

- Add demo data (demo)

```
(invenio-rdm-extension-demo) ppanero@ppanero-ThinkPad-X1-Carbon-5th:~/Workspace/inveniosw/pjmet/ext-demo-site$ invenio-cli demo --local
Setting up server...
Starting containers...
Populating instance with demo records......
```
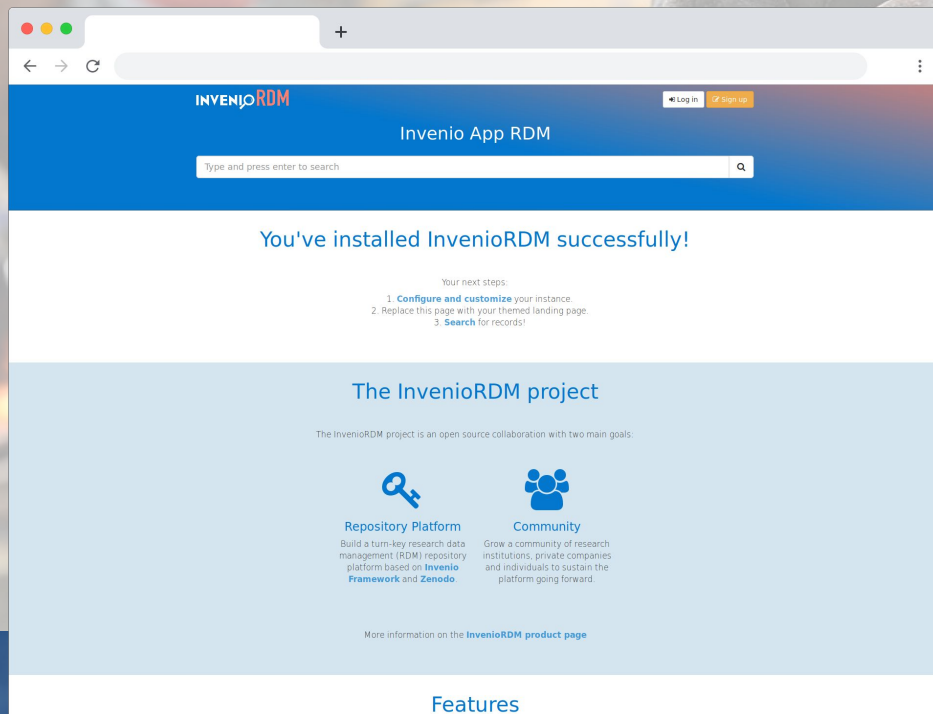
Development!

- Run it!

```
(invenio-rdm-extension-demo) ppanero@ppanero-ThinkPad-X1-Carbon-5th:~/Workspace/inveniosw/pjmet/ext-demo-site$ invenio-cli server --local

Booting up server...
Starting celery worker...
Starting up local (development) server...
Server up and running...
```

Development!

- Browse it!
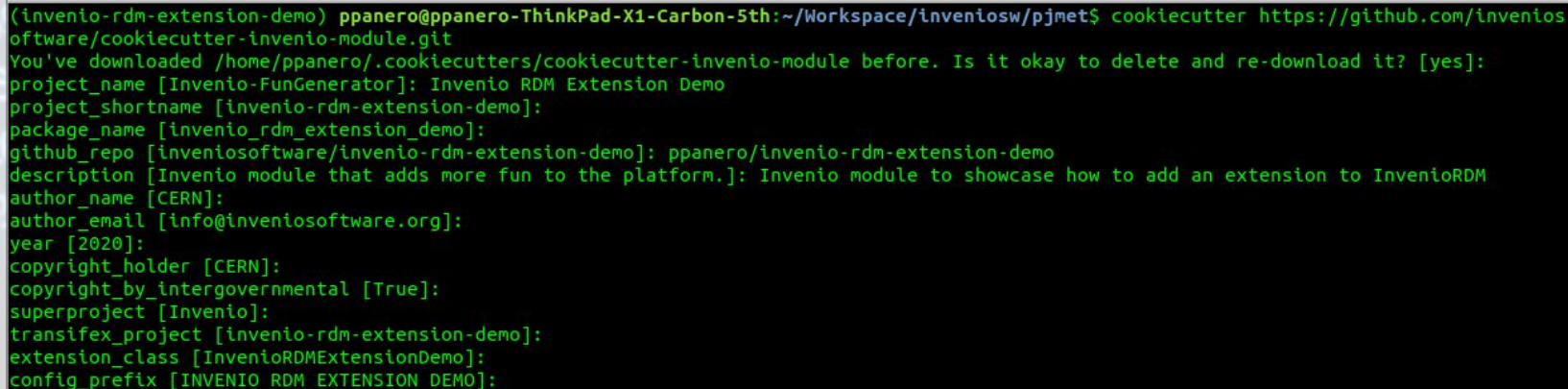
Extensions HowTo

- Create a new module

- Cookiecutter? [GitHub]

Extensions HowTo

- Create your extension

```
(invenio-rdm-extension-demo) ppanero@ppanero-ThinkPad-X1-Carbon-5th:~/Workspace/inveniosw/pjmet$ cookiecutter https://github.com/invenios
oftware/cookiecutter-invenio-module.git
You've downloaded /home/ppanero/.cookiecutters/cookiecutter-invenio-module before. Is it okay to delete and re-download it? [yes]:
project_name [Invenio-FunGenerator]: Invenio RDM Extension Demo
project_shortname [invenio-rdm-extension-demo]:
package_name [invenio_rdm_extension_demo]:
github_repo [inveniosoftware/invenio-rdm-extension-demo]: ppanero/invenio-rdm-extension-demo
description [Invenio module that adds more fun to the platform.]: Invenio module to showcase how to add an extension to InvenioRDM
author_name [CERN]:
author_email [info@inveniosoftware.org]:
year [2020]:
copyright_holder [CERN]:
copyright_by_intergovernmental [True]:
superproject [Invenio]:
transifex_project [invenio-rdm-extension-demo]:
extension_class [InvenioRDMExtensionDemo]:
config_prefix [INVENIO RDM EXTENSION DEMO]:
----------------------------------------------------------------
```

Extensions HowTo

- Example code [here](#)

```python
"""Invenio module to showcase how to add an extension to InvenioRDM"""

from __future__ import absolute_import, print_function

from flask import Blueprint, render_template
from flask_babelex import gettext as _

blueprint = Blueprint(
    'invenio_rdm_extension_demo',
    __name__,
)


@blueprint.route("/rdm-ext-demo")
def index():
    """RDM Extension Demo view"""
    return 'RDM Extension Demo!'
```
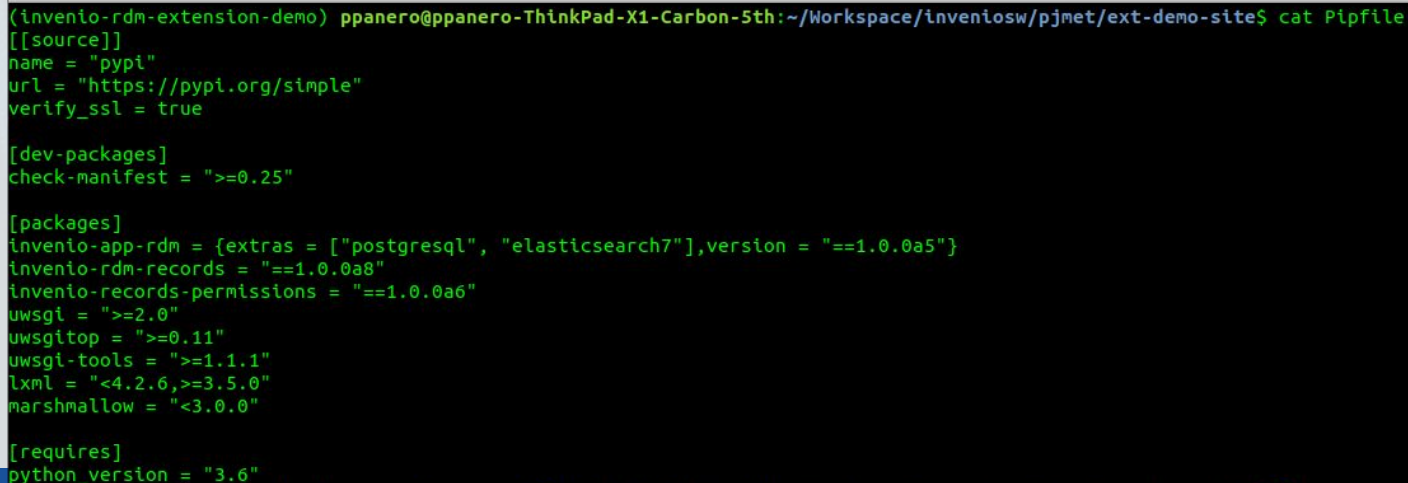
Extensions HowTo

- Install you extension: **pipenv**
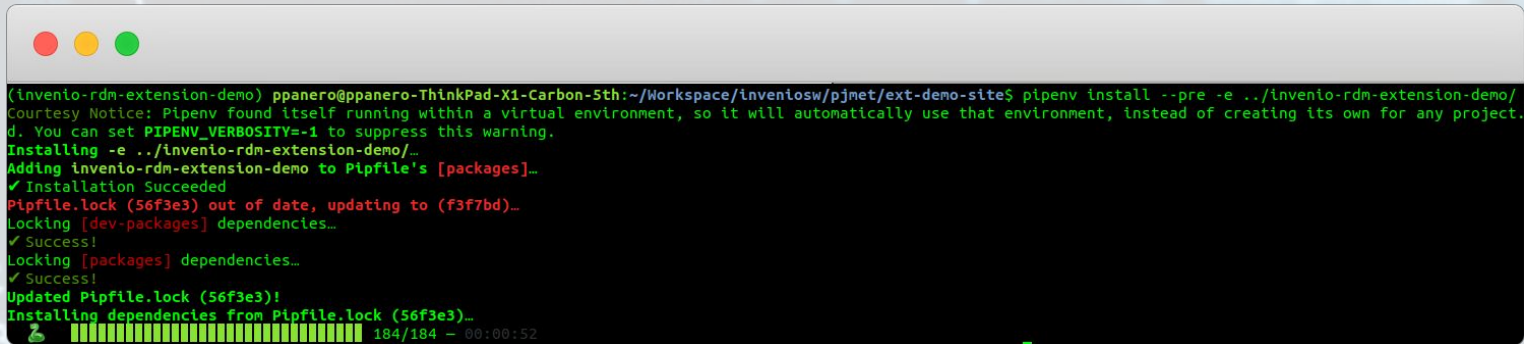
```
(invenio-rdm-extension-demo) ppanero@ppanero-ThinkPad-X1-Carbon-5th:~/Workspace/inveniosw/pjmet/ext-demo-site$ cat Pipfile
[[source]]
name = "pypi"
url = "https://pypi.org/simple"
verify_ssl = true

[dev-packages]
check-manifest = ">=0.25"

[packages]
invenio-app-rdm = {extras = ["postgresql", "elasticsearch7"],version = "==1.0.0a5"}
invenio-rdm-records = "==1.0.0a8"
invenio-records-permissions = "==1.0.0a6"
uwsgi = ">=2.0"
uwsgitop = ">=0.11"
uwsgi-tools = ">=1.1.1"
lxml = "<4.2.6,>=3.5.0"
marshmallow = "<3.0.0"

[requires]
python_version = "3.6"
```

Extensions HowTo

- Install (Attention to **--pre**)

Extensions HowTo

- Install (Attention to **--pre**)
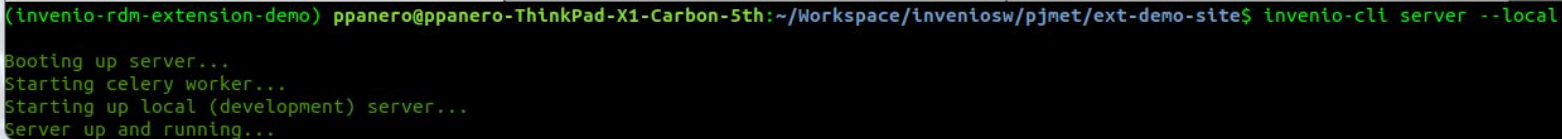
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uwsgi-tools = ">=1.1.1"
lxml = "<4.2.6,>=3.5.0"
marshmallow = "<3.0.0"
invenio-rdm-extension-demo = {editable = true,path = "./../invenio-rdm-extension-demo"}

[requires]
python_version = "3.6"

[pipenv]
allow_prereleases = true
```

Extensions HowTo

- Run the server

```
(invenio-rdm-extension-demo) ppanero@ppanero-ThinkPad-X1-Carbon-5th:~/Workspace/inveniosw/pjmet/ext-demo-site$ invenio-cli server --local

Booting up server...
Starting celery worker...
Starting up local (development) server...
Server up and running...
```

Extensions HowTo

- Voilà!

RDM Extension Demo!
`https://localhost:5000/rdm-ext-demo`
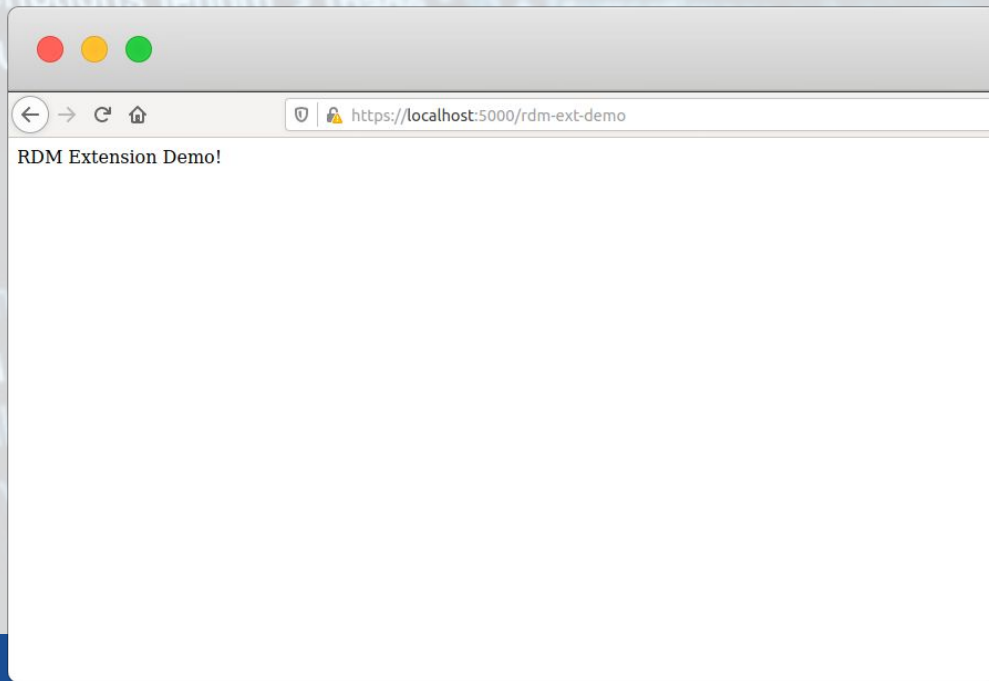
Collaboration "*Guidelines*"

- Challenges:
    - Out-of-Office borders
    - Time-Zones
    - Working cultures / habits

Collaboration "*Guidelines*"

- Solution → GitHub!

- **Rate your comments in the reviews**

  - Avoids time zone blockings

  - Be clear on when something can be merged
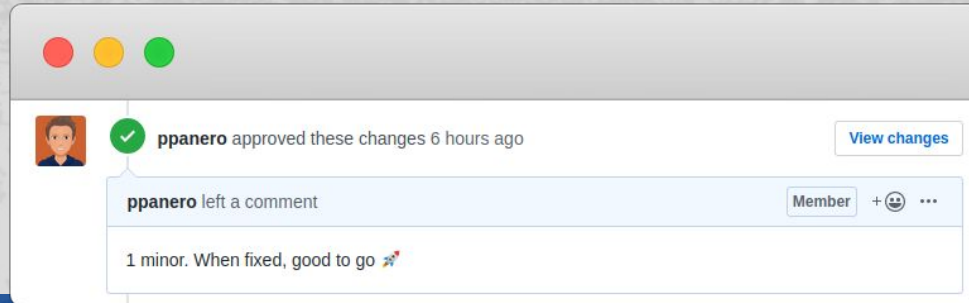
Collaboration "*Guidelines*"

- PR comment scale:

  - Comment / Shelved

  - Minor

  - Moderate / Normal

  - Major

Collaboration "*Guidelines*"

- Comment / Shelved: Something **worth mentioning** but that will be **treated later on** (e.g. different issue).

fenekku on Dec 9, 2019 Member

Shelved: It would be nice to break up, dependency (npm) installation and asset building too.
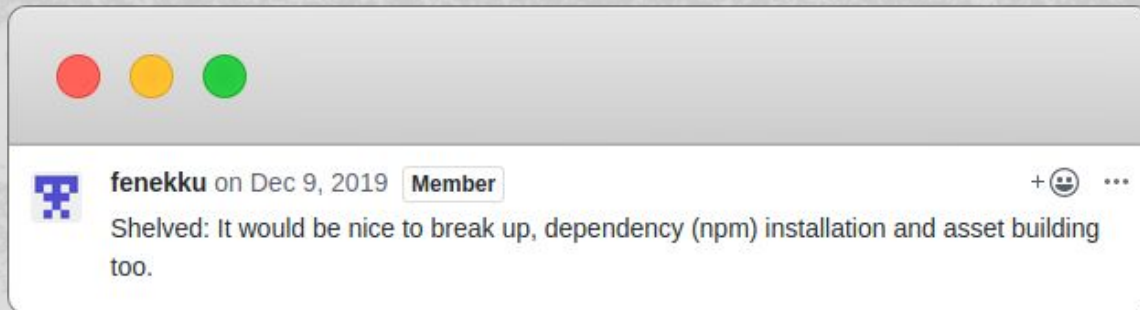
Collaboration "*Guidelines*"

- Minor: Something that the reviewer thinks **might need change**. However, it is not blocking, it is **up to the developer** to choose if and how to change it. **It can be merged!**

Collaboration "*Guidelines*"

- Moderate / Normal: Something that **requires further discussion** (e.g. breaking changes). It **cannot be merged, unless explicitly said** (e.g. choose a solution proposed by the reviewer).

fenekku on Dec 9, 2019 [Member] + 😊 ...

Normal: Let's display a message that this is not something to do in prod / a full prod rebuild is what will take these changes into account. Important part here is to provide feedback to the user as opposed to no feedback.
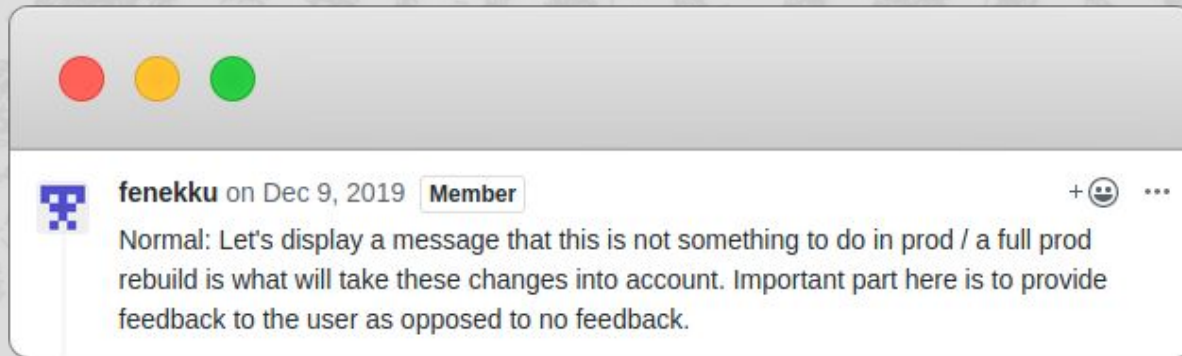
Collaboration "*Guidelines*"

- Major: **Needs discussion**, probably a video call. It has **high implications**. It **cannot be merged.**

Collaboration "*Guidelines*"

- Propose, let's chat :)
  - Gitter, Video call, in person, letter, whatever means :)

"If you wanna go fast go alone,
if you wanna **go further go together!"**

Collaboration "*Guidelines*"

- Make a proposition
- Submitting code to an existing repository → Pull Request (PR)
  - Fork the repository → Contributing Guidelines
  - Create it fast: Use [WIP] in the title → Work in Progress

Collaboration "*Guidelines*"

- Submitting code to an existing repository → Pull Request (PR)
  - Run tests!

Collaboration "*Guidelines*"

- Submitting code to an existing repository → Pull Request (PR)
  - Run tests!

Collaboration "*Guidelines*"

- Submitting code to an existing repository → Pull Request (PR)
  - Document it!
  - Assign a reviewer!
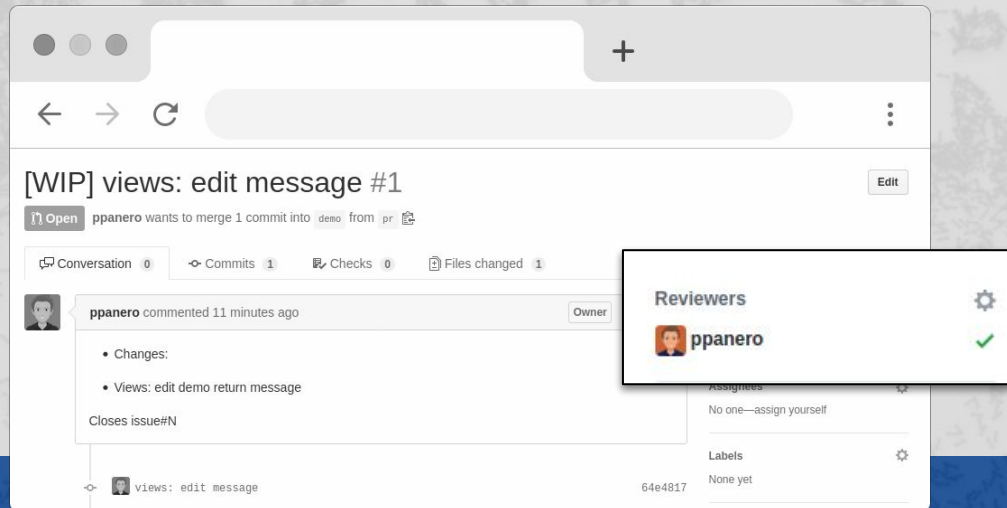
Collaboration "*Guidelines*"

1. Propose, chat → Agreement
2. WIP
3. Test
4. Document
5. Assign a reviewer
6. Enjoy the new feature ;)

Let's code!

1. **Create your extension (**<u>**Cookiecutter on GitHub**</u>**)**
2. **Install it (**<u>**Extension example on GitHub**</u>**)**
3. **Run it!**