

Wisdoms learnt when contributing to Apache Airflow

An Outreachy intern's story in contributing
to Apache Airflow



Bowrna
Apache Airflow Contributor

Who am I?

- Self-taught programmer
- Software Engineer with 7+ years of experience in building backend systems
- Outreachy Intern for Apache Airflow - Dec 2021 Cohort
- Active Open Source Contributor to Apache Airflow



People who made this talk possible

Outreachy Organisers

My Mentors:

- Jarek Potiuk
- Elad Kalif
- Nasser Kaze

My Cointerns:

- Edith Puclla
- Melodie Ezeanie

My first step in Opensource



Few weeks later..



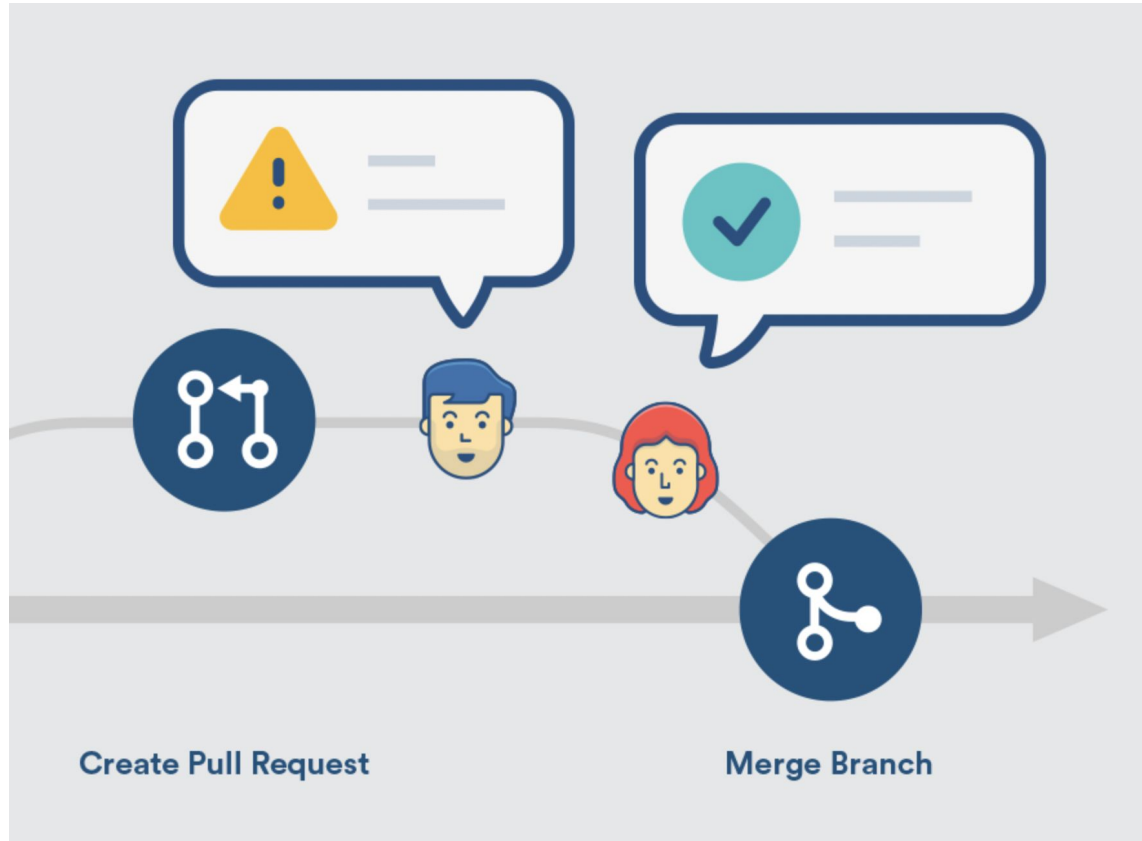
The new beginning



Rewriting Breeze from BASH to Python

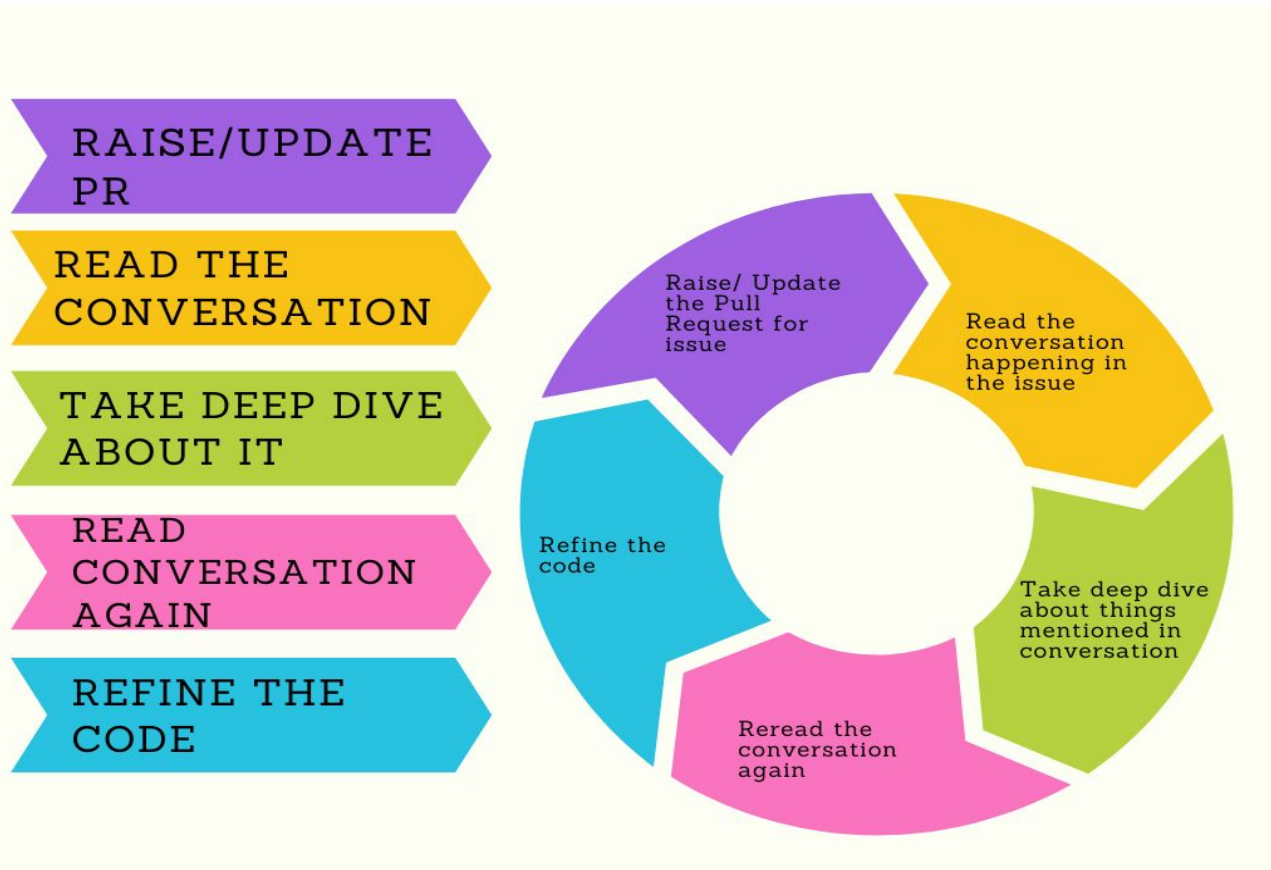
- **Breeze** - Easy to use dev tool for development and testing environment
- Consistent and Common development environment so that it's easy to replicate the issues in CI pipelines
- Project involves migrating the code from bash script to Python script

**CLEAR
COMMUNICATION IN
WRITTEN FORM IS
VERY POWERFUL**





[Image from Atlassian](#)





Process in getting Pull request merged



Example Pull Request

enter the shell breeze2 environment #21145

 Merged potiuk merged 4 commits into `apache:main` from `Bowrna:enter-shell-breeze2`  on 3 Mar

 Conversation 128  Commits 4  Checks 33  Files changed 20



Bowrna commented on 27 Jan

Contributor  

closes: [#20960](#)

related: [#20960](#)

Breeze2 - enter the shell in breeze2

What I learnt from writing comments in PR

- Writing not only helps to exchange thoughts but also helps to generate new ones
- Writing makes thought process clearer
- Writing comments paved path to write blog posts.
- You can check my blog posts in <https://bowrna.hashnode.dev/>

**CODE IS NOT
AN ASSET AND
DON'T WORRY
ABOUT
THROWING IT
AWAY**

Whack the code

Rewrite Breeze setup autocomplete #20066

Merged

potiuk merged 1 commit into `apache:main` from `Bowrna:breeze-setup-autocomplete` on 9 Jan

Conversation 36

Commits 1

Checks 3

Files changed 3



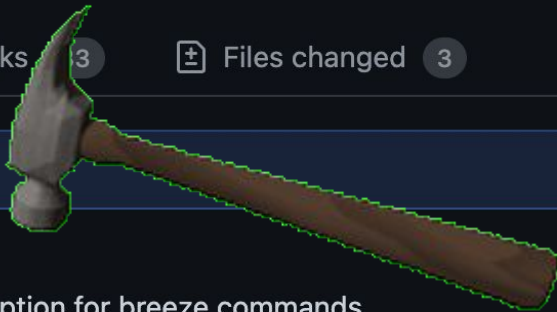
Bowrna commented on 6 Dec 2021

Contributor



closes: [#19967](#) (comment)

Breeze rewrite in Python - Sample autocomplete option for breeze commands



Code is not an asset

**Initial
Thoughts**

Maybe I should have figured out this solution earlier

Realisation

I wouldn't have figured out this easy solution if I haven't worked on the issue for 3 days

Wisdom

The whole project that I was working on is scraping the old code and rewriting again

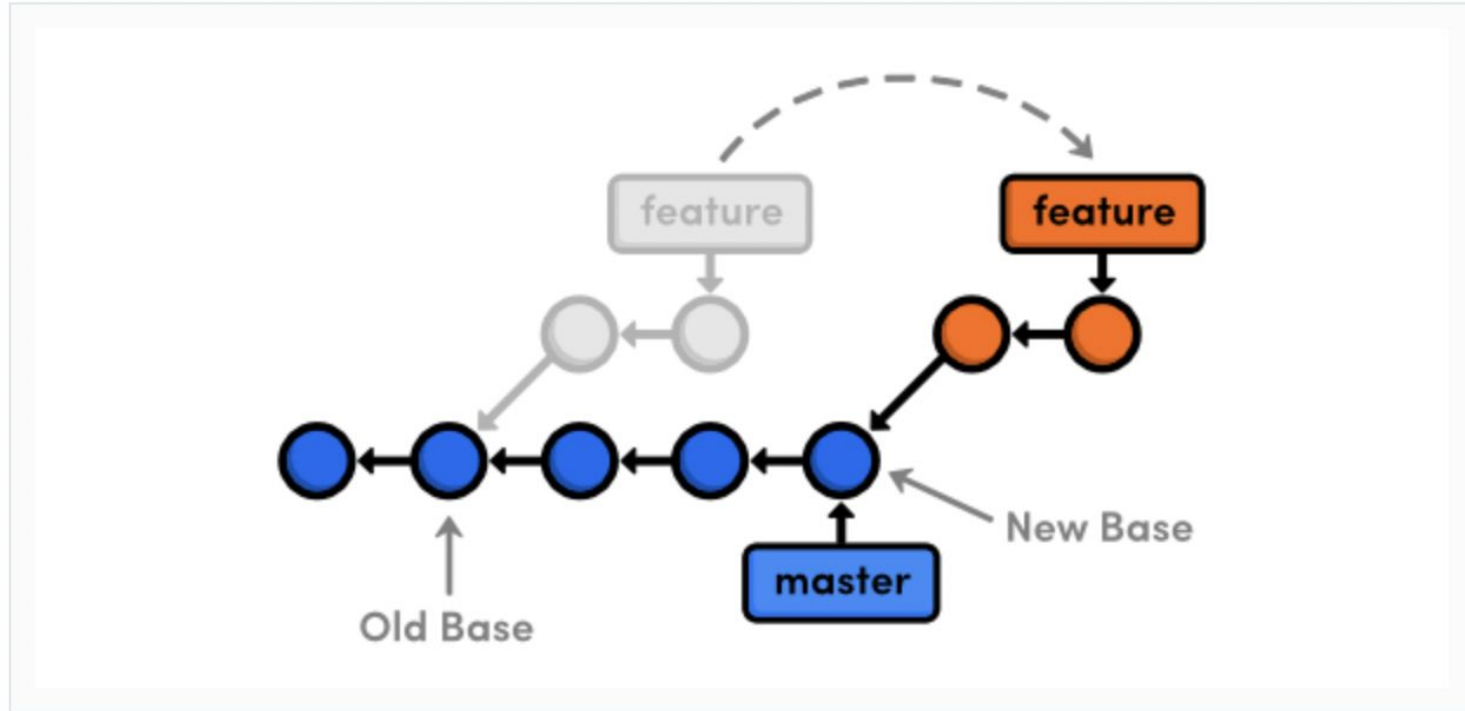
**DONT FEEL
SHY ABOUT
ASKING
QUESTIONS**

<https://dontasktoask.com/>

The solution is not to ask to ask, but just to ask. Someone who is idling on the channel and only every now and then glances what's going on is unlikely to answer to your "asking to ask" question, but your actual problem description may pique their interest and get them to answer.

So, to summarize, don't ask *"Any Java experts around?"*, but rather ask *"How do I do [problem] with Java and [other relevant info]?"*

About GIT REBASE



[Image by Ryan Hodson](#)

Revised CONTRIBUTING.rst in Apache Airflow

How to rebase PR

A lot of people are unfamiliar with the rebase workflow in Git, but we think it is an excellent workflow, providing a better alternative to the merge workflow. We've therefore written a short guide for those who would like to learn it.

As of February 2022, GitHub introduced the capability of "Update with Rebase" which make it easy to perform rebase straight in the GitHub UI, so in cases when there are no conflicts, rebasing to latest version of `main` can be done very easily following the instructions [in the GitHub blog](#)

Rebasing branch in a button click

The screenshot shows a GitHub pull request interface. At the top, it says '4 pending reviewers'. Below that, a green checkmark indicates 'All checks have passed' with '7 successful checks'. A red 'X' icon and the text 'Merging is blocked' are displayed, with a subtext: 'Merging can be performed automatically with 1 approving review.' To the right of this message is a button labeled 'Update branch' with a dropdown arrow. The dropdown menu is open, showing two options: 'Update with merge commit' (checked) and 'Update with rebase' (highlighted with a red border). The 'Update with rebase' option includes the text: 'This pull request will be rebased on top of the latest changes and then force pushed.' At the bottom of the interface, there are tabs for 'Write' and 'Preview', and a 'Leave a comment' input field.

4 pending reviewers

✓ All checks have passed
7 successful checks [Show all checks](#)

✗ **Merging is blocked**
Merging can be performed automatically with 1 approving review.

Update branch ▼

- ✓ **Update with merge commit**
The latest changes will be merged into this branch with a merge commit.
- Update with rebase**
This pull request will be rebased on top of the latest changes and then force pushed.

Write Preview

Leave a comment



**OPEN
SOURCE IS A
RICH
ECOSYSTEM**

On finding issues in another project

The screenshot shows a GitHub pull request interface. At the top, the title is "Change the storage of frame to use threadLocal rather than Dict #21993". Below the title, it says "Merged" in a purple badge, followed by "potiuk merged 1 commit into apache:main from potiuk:fix-flaky-stackrace-behaviour" and a link icon with "on 4 Mar".


Below this, there are tabs for "Conversation" (10), "Commits" (1), "Checks" (81), and "Files changed" (1). The "Conversation" tab is selected.

The main content area shows a comment by "potiuk" dated "4 Mar". The comment text is: "There is a very probable WeakKeyDict bug in Python standard library (to be confirmed and investigated further) that manifests itself in a very rare failure of the test_stacktrace_on_failure_starts_with_task_execute_method". The first sentence of the comment is highlighted with a red box.

On the right side, there is a "Reviewers" section with four users listed: "malthe", "kaxil", "XD-DENG", and "ashb".

On fixing issues in another project

Replace key if not identical to old key in dict #31685

 Closed


malthe wants to merge 1 commit into `python:main` from `malthe:fix-weakref-key-replacement`

Conversation 4

Commits 1

Checks 0

Files changed 3

empty

malthe commented on 4 Mar · edited


This fixes an issue in `dict` and by extension in `weakref.WeakKeyDictionary` which arises when a key that is equal to an existing key is used to set a new value – where the key itself is not replaced.


To appreciate this situation, consider when the keys are type `weakref.ref`.


In this case, the lifetime of the key after replacing the value is now that of the initial key and not the one that's been set subsequently – since the key entry is still the initial object. If the first key falls to refcount zero, the key is removed from the `weakref.WeakKeyDictionary` – which is unexpected because we have set a newer key which might have refcount greater than zero.


In the general case where a value is replaced for the exact same key (object identity), there is no practical difference with this change – and when a new key is used to replace a value, the cost is only a write to memory.

Thanks to @potiuk and @ashb for helping finding this issue which was discovered during flaky test runs in Apache Airflow.

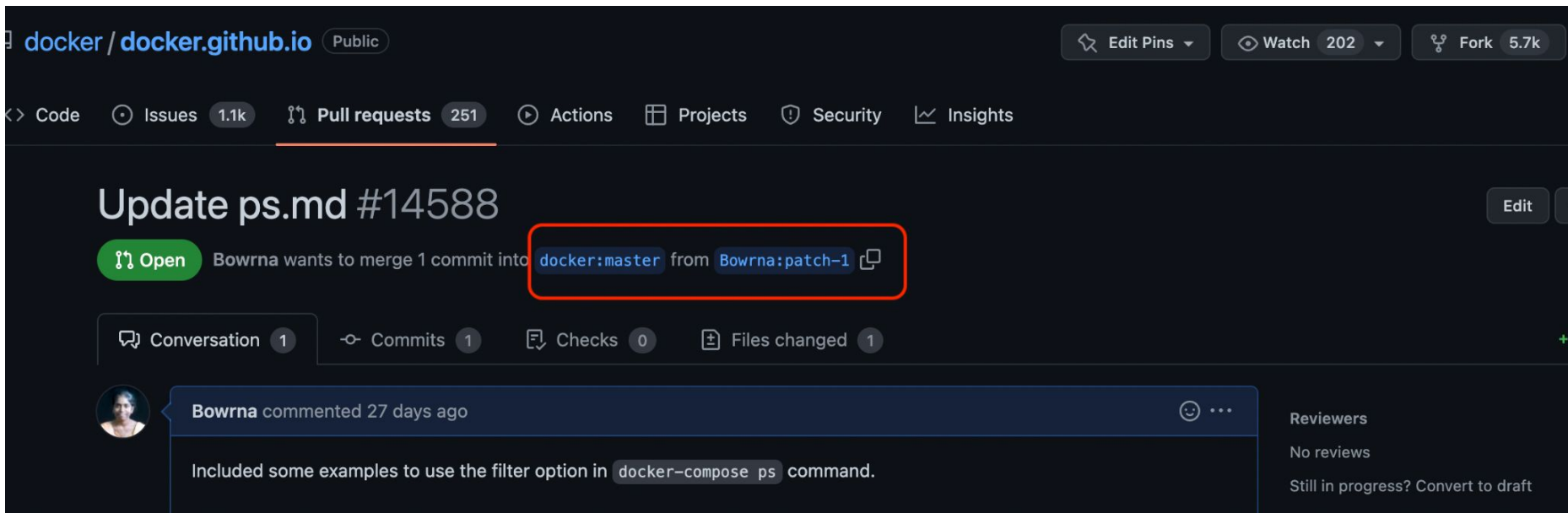


 2

 1

 1

On contributing to docker documentation



The screenshot shows a GitHub pull request interface for the repository `docker / docker.github.io`. The pull request is titled "Update ps.md #14588" and is in the "Open" state. The pull request is from the `docker:master` branch to the `Bowrna:patch-1` branch. The pull request description states: "Included some examples to use the filter option in `docker-compose ps` command." The pull request has 1 commit, 0 checks, and 1 file changed. The pull request is created 27 days ago by Bowrna. The pull request is currently in progress and has no reviews.

docker / [docker.github.io](#) Public

Edit Pins Watch 202 Fork 5.7k

< > Code Issues 1.1k Pull requests 251 Actions Projects Security Insights

Update ps.md #14588

Open Bowrna wants to merge 1 commit into `docker:master` from `Bowrna:patch-1`

Conversation 1 Commits 1 Checks 0 Files changed 1

Bownrna commented 27 days ago

Included some examples to use the filter option in `docker-compose ps` command.

Reviewers

No reviews

Still in progress? Convert to draft

**TRIVIAL THINGS
BECAME NO
MORE TRIVIAL
TO ME**

Don't overlook

- Even tiny details are important
- Simple colour coding of messages that is printed for logging purpose is vital
- Little details makes the experience better and saves lot of time

Adding Accessibility

```
psathishkannan@Sathishs-MacBook-Air airflow % breeze config --no-colour  
Disable Colour
```

Current configuration:

- * Python: 3.7
- * Backend: sqlite
- * Postgres version: 10
- * MySQL version: 5.7
- * MsSQL version: 2017-latest
- * ASCIIART: enabled
- * Cheatsheet: enabled
- * Colour: disabled

```
psathishkannan@Sathishs-MacBook-Air airflow % breeze config --colour  
Enable Colour
```

Current configuration:

- * Python: 3.7
- * Backend: sqlite
- * Postgres version: 10
- * MySQL version: 5.7
- * MsSQL version: 2017-latest
- * ASCIIART: enabled
- * Cheatsheet: enabled
- * Colour: enabled

Thank you!

Contact me:

Github: <https://github.com/Bowrna>

My blog: <https://bowrna.hashnode.dev/>

Twitter: https://twitter.com/bowrna_p

LinkedIn: <https://www.linkedin.com/in/bowrna/>

