

# **Дашборд для работы над Pull Requests**

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# ВВЕДЕНИЕ

- Многие проекты используют гитхаб ([github.com](https://github.com)). Они хранят свой код в **репозиториях**.
- Изменения в open source проекты (в частности, ClickHouse) могут предложить любые пользователи. Чтобы отправить изменения, разработчик создает **pull request** в репозиторий проекта.
- Далее команда проекта и контрибьюторы рассматривают изменения, обсуждают возможные правки и при необходимости могут добавить дополняющие коммиты.

# ПОСТАНОВКА ЗАДАЧИ

Разработать удобный инструмент для обзора открытых пулл реквестов репозитория и всей необходимой информации о них.

# АКТУАЛЬНОСТЬ

Данная задача была предложена командой ClickHouse, так как для удобной работы им очень не хватало подобного инструмента.

Необходим дашборд, который позволил бы быстро просматривать статус предложенных изменений.

- Быстрый обзор самых новых пулл реквестов
- Нахождение “заброшенных”
- Выбор пулл реквестов, у которых прошли выбранные тесты
- Просмотр пулл реквестов, сделанных новыми для проекта людьми

# СУЩЕСТВУЮЩИЕ РЕШЕНИЯ

Filters ▾

🔍 is:pr is:open

🏷 Labels 138

📅 Milestones 0

New pull request

🔗 129 Open ✓ 6,443 Closed

Author ▾

Label ▾

Projects ▾

Milestones ▾

Reviews ▾

Assignee ▾

Sort ▾


















🔗 [docs] minor translation update ✓ pr-documentation

#11072 opened 1 hour ago by blinkov

таблица, предоставленная гитхабом

Плюсы	Минусы
<ul style="list-style-type: none"><li>● Подробная информация про каждый пулл реквест</li><li>● Фильтры, сортировки по многим параметрам</li></ul>	<ul style="list-style-type: none"><li>● Неудобный формат</li><li>● Нет информации про тесты</li><li>● Стандартная сортировка по дате открытия пулл реквеста</li></ul>

# СУЩЕСТВУЮЩИЕ РЕШЕНИЯ

Bug	Title	Last updated	Assignees	Reviewers	People	Last actor	M*	S*	Changes	Labels
	 11004: Remove allow_processors flag from executeQuery() +	23 minutes ago				 			 13 +353 / -92	
	 11042: Apply TTL for old data, after ALTER MODIFY TTL query +	35 minutes ago				 			 12 +230 / -14	

таблица, разработанная сотрудниками Мозиллы,  
<https://github.com/peterbe/github-pr-triage>

Плюсы	Минусы
<ul style="list-style-type: none"><li>• Легко просматривать основную информацию по каждому пулл реквесту</li><li>• Можно понять общее состояние пулл реквестов репозитория</li></ul>	<ul style="list-style-type: none"><li>• Мало информации</li><li>• Отображены только последние 30 пулл реквестов</li><li>• Никаких фильтров и сортировок</li></ul>

# ПОЛУЧЕНИЕ ДАННЫХ

Для заполнения дашборда были использованы данные, доступные при помощи GitHub API v3;

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Например, по ссылке <https://api.github.com/repos/ClickHouse/ClickHouse/pulls?state=open> МОЖНО найти краткую информацию обо всех открытых пулл реквестах репозитория ClickHouse в формате json.

API rate limit равен 5000 в час.

# ОБРАБОТКА ДАННЫХ

После сбора номеров всех открытых пулл реквестов репозитория начинается более тщательная обработка данных.

- Чтобы минимизировать время работы, все пулл реквесты обрабатываются параллельно.
- Все нужные для дашборда данные репозитория, открытого не в первый раз хранятся в базе. Чтобы избежать лишних запросов к GitHub API для каждой страницы сохранен etag\*.

*\*etag - идентификатор специфической версии ресурса*



# ХРАНЕНИЕ ДАННЫХ

MongoDB, 5 коллекций

Репозитории	Тесты, люди, метки	Пулл реквесты
<ul style="list-style-type: none"><li>➤ Основная информация (название, ссылка)</li><li>➤ Последнее обновление</li><li>➤ Последнее использование</li><li>➤ Номеры открытых пулл реквестов</li></ul>	<ul style="list-style-type: none"><li>➤ Названия/логины</li><li>➤ Описания</li><li>➤ Цвета/аватары</li><li>➤ Ссылки</li></ul>	<ul style="list-style-type: none"><li>➤ Вся информация для дашборда, каждый документ содержит информацию, готовую для использования в качестве строки дашборда</li></ul>

# ИНСТРУМЕНТЫ

- Сайт написан на языке Python при помощи фреймворка Flask.
- Возможен запуск локально, на данный момент инструмент выложен на облачной платформе Heroku.
- Используется Heroku Scheduler: каждые 10 минут запускается обновление данных: если репозиторий был использован более 5 дней назад, то все данные по нему удаляются, иначе они обновляются.
- Данные в интерфейс передаются при помощи шаблонизатора Jinja2, интерфейс написан при помощи библиотеки flask-bootstrap.
- Сортировки и фильтры написаны на языке JavaScript.

# РЕЗУЛЬТАТЫ

Home

## Dashboard for pull requests of <https://github.com/clickhouse/clickhouse>

Data was updated a minute ago















Show sort options

Show filters options

Reset settings

Refresh data

Search by title...

Author	Title	Tests	Details	Labels	Changes	Reviewed	Last event	Assignees	Requested reviewers
 alexey-milovidov MEMBER	[11537] Better exception message when cannot parse columns declaration list Created 14 minutes ago <a href="#">Show description</a>	3 success 2 pending	 1	pr-improvement	1 commits created lines: + 4, - 10		 commented 8 minutes ago		
 alexey-milovidov MEMBER	[11524] Avoid too large stack frames Created 5 hours ago <a href="#">Show description</a>	2 success 3 pending	 1	pr-build submodule changed	7 commits created lines: + 666, - 656		 made a commit 19 minutes ago		
 alexey-milovidov MEMBER	[11534] Speed up merging in AggregatingMergeTree Created an hour ago <a href="#">Show description</a>	2 success 2 pending	 2	pr-performance	3 commits created lines: + 91, - 29	 ✓	 made a commit 22 minutes ago		
 azat COLLABORATOR	[11527] Fix async INSERT into Distributed for prefer_localhost_replica=0 and w/o internal_replication Created 4 hours ago <a href="#">Show description</a>	33 success 5 pending	 1	pr-bugfix pr-no-backport	2 commits created lines: + 47, - 23	 ✓	 assigned 23 minutes ago		































































































































































































# ЗАГРУЗКА СТРАНИЦЫ

Activities Google Chrome Tue 01:43








Dashboard

pulls-dashboard-demo.herokuapp.com/dashboard/ClickHouse/ClickHouse?number=all

Guest

CONTRIBUTOR									
 nikitamikhaylov MEMBER	[11460] ssl in copier Created 4 days ago <a href="#">Show description</a>	35 success 2 pending 1 failure	  	  	2 commits created lines: + 401, - 59	  	  	  	  
 Curtiz MEMBER	[10697] Polymorphic parts (in-memory format) Created a month ago <a href="#">Show description</a>	32 success 5 failure	  	  	29 commits created lines: + 2331, - 617	  	  	  	  
 vzakaznikov CONTRIBUTOR	[11495] Adding support for PREWHERE in live view tables. Created a day ago <a href="#">Show description</a>	37 success 1 failure	  	  	2 commits created lines: + 33, - 0	  	  	  	  
 heslaoting	[11467] Add "SHOW CLUSTERIS" queries support Created 4 days ago <a href="#">Show description</a>	25 success 11 failure	  	  	3 commits created lines: + 96, - 3	  	  	  	  
 KochetovNicolai CONTRIBUTOR	[11452] Perf tests for #11291 Created 4 days ago <a href="#">Show description</a>	36 success 2 failure	  	  	23 commits created lines: + 227, - 14	  	  	  	  
 KochetovNicolai CONTRIBUTOR	[11357] Partial sorting with hint Created 7 days ago <a href="#">Show description</a>	20 success 19 failure	  	  	19 commits created lines: + 305, - 17	  	  	  	  
 azet COLLABORATOR	[11391] Ability to preserve user for distributed queries Created 6 days ago <a href="#">Show description</a>	30 success 1 pending 1 error 2 failure	  	  	4 commits created lines: + 282, - 35	  	  	  	  
 excitron CONTRIBUTOR	[11177] Added "allow_merges" option for volumes in multi-disk configuration Created 15 days ago <a href="#">Show description</a>	4 success 1 pending 3 failure	  	  	1 commits created lines: + 47, - 11	  	  	  	  
 Vasder CONTRIBUTOR	[8331] Support for Stream Processing Created 6 months ago <a href="#">Show description</a>	1 success 1 pending 1 failure	  	  	54 commits created lines: + 3672, - 12	  	  	  	  
 aleksey-milovidov MEMBER	[11499] Network dump (experimental) Created a day ago <a href="#">Show description</a>	13 success 2 pending 2 error 21 failure	  	  	2 commits created lines: + 146, - 0	  	  	  	  

# ОБЩИЙ ВИД

pulls-dashboard-demo.herokuapp.com/dashboard/ClickHouse/ClickHouse?number=all											
robot-clickhouse CONTRIBUTOR	<a href="#">Show description</a>	18 failure	9	submodule changed				made a commit 3 hours ago			
 MovElb	[10242] PostgreSQL wire protocol implementation Created 2 months ago <a href="#">Show description</a>	31 success 6 pending	8	can be tested doc-alert pr-feature	6 commits created lines: + 1968, - 1			 made a commit 3 hours ago			
 alesapin MEMBER	[11516] [WIP] Storage metadata as single struct. Created 8 hours ago <a href="#">Show description</a>	20 success 3 pending 7 failure		pr-not-for-changing	14 commits created lines: + 716, - 565			 made a commit 4 hours ago			
 robot-clickhouse CONTRIBUTOR	[10561] Release pull request for branch 20.4 Created a month ago <a href="#">Show description</a>	8 success 4 pending 2 error, 14 failure	1	release submodule changed	76 commits created lines: + 5205, - 1265			 made a commit 4 hours ago			
 r-zenine	[11071] Add's hasSubSeq function to match Array subsequences Created 19 days ago <a href="#">Show description</a>		7	doc-alert pr-feature st-waiting-for-its	3 commits created lines: + 285, - 38			 commented 4 hours ago			
 alesapin MEMBER	[11523] Fixing test and benign race condition during table drop Created 6 hours ago <a href="#">Show description</a>	36 success 2 pending	2	bugfix pr-bugfix	4 commits created lines: + 31, - 13			 made a commit 5 hours ago			
 blinkov MEMBER	[11300] Opt-in support for sending crash reports Created 10 days ago <a href="#">Show description</a>	34 success 4 failure	10	can be tested doc-alert pr-feature st-waiting-for-its submodule changed	50 commits created lines: + 552, - 73			 commented 5 hours ago			
	[10051] Remove functions of other keys in GROUP BY section Created 2 months ago	36 success 1 failure		can be tested pr-performance	11 commits created lines: + 95, - 0			 made a commit			

# СОПТИРОВКИ

Activities Google Chrome Tue 01:52

Dashboards x +

← → C pulls-dash-board-demo.herokuapp.com/dashboard/ClickHouse/ClickHouse?number=all

Guest

Home








































## Dashboard for pull requests of <https://github.com/clickhouse/clickhouse>

Data was updated 10 minutes ago

Show sort options Show filters options Reset settings Refresh data

By time updated By time created By number of comments By diff size By number of passed tests

Search by title:

Author	Title	Tests	Details	Labels	Changes	Reviewed	Last event	Assignees	Requested reviewers
 alexey-milovidov MEMBER	[11534] Speed up merging in AggregatingMergeTree Created 57 minutes ago <a href="#">Show description</a>				3 commits created lines: + 91, - 29	 ✓	 made a commit 10 minutes ago		
 azat COLLABORATOR	[11527] Fix async INSERT into Distributed for prefer_localhost_replica=0 and w/o internal_replication Created 4 hours ago <a href="#">Show description</a>	32 success 6 pending		 	2 commits created lines: + 47, - 23	 ✓	 assigned 11 minutes ago		
 4ertus2 MEMBER	[11513] Enable multiple_joins_rewriter_version v2 Created 9 hours ago <a href="#">Show description</a>				3 commits created lines: + 67, - 39		 made a commit 11 minutes ago		
 alexey-milovidov MEMBER	[11524] Avoid too large stack frames Created 5 hours ago <a href="#">Show description</a>			 	6 commits created lines: + 56, - 46		 made a commit 15 minutes ago		
 alexey-milovidov MEMBER	[11536] Update SIMDJSON to the latest master Created 42 minutes ago <a href="#">Show description</a>	3 success 3 pending		 	1 commits created lines: + 15, - 7		 added a label 36 minutes ago		
 akuzn MEMBER	[11515] More stable perf tests Created 9 hours ago <a href="#">Show description</a>	3 success 4 pending			3 commits created lines: + 228, - 239	 ✓	 made a commit 39 minutes ago		
 azat COLLABORATOR	[11528] Fix shard_num/replica_num for <node> (breaks use_compact_format_in_distributed_parts_names) Created 3 hours ago <a href="#">Show description</a>	29 success 9 pending			2 commits created lines: + 27, - 10	 ✓	 assigned 49 minutes ago		

# ФИЛЬТРЫ

Activities Google Chrome Tue 01:55

Dashboard x +

pulls-dash-board-demo.herokuapp.com/dashboard/ClickHouse/ClickHouse?number=all

Home

## Dashboard for pull requests of <https://github.com/clickhouse/clickhouse>

Data was updated 2 minutes ago

Show sort options Show filters options Reset settings Refresh data

Select labels (works as intersection)  Select authors (works as union)  Select authors associations (works as union)

Select assignees (works as union)  Select passed tests (works as intersection)  Only mergeable

Show pulls assigned to

- 4erius2
- Alkazz
- Artemiyfly
- BohuTANG
- MovikE

	Title	Tests	Details	Labels	Changes	Reviewed	Last event	Assignees	Requested reviewers
	MySQL wire protocol penetration 1 month ago <a href="#">Show description</a>	31 success 6 pending	8	<a href="#">can be tested</a> <a href="#">new story</a> <a href="#">in feature</a>	6 commits created lines: + 1968, - 1		made a commit 3 hours ago		
	[1005] Remove functions of other keys in GROUP BY section Created 2 months ago <a href="#">Show description</a>	36 success 1 failure	7	<a href="#">can be tested</a> <a href="#">in performance</a>	11 commits created lines: + 95, - 0		made a commit 6 hours ago		
	[10050] Handle no node error during ON CLUSTER query Created 2 months ago <a href="#">Show description</a>	29 success 1 pending 2 error 1 failure	3	<a href="#">can be tested</a> <a href="#">bug story</a> <a href="#">in feature</a>	1 commits created lines: + 1, - 1		commented 10 hours ago		
	[11467] Add "SHOW CLUSTER(s)" queries support Created 4 days ago <a href="#">Show description</a>	26 success 11 failure	2	<a href="#">can be tested</a> <a href="#">bug story</a> <a href="#">in feature</a>	3 commits created lines: + 96, - 3		added a review comment 12 hours ago		
	[11291] Partial sorting optimization fix Created 10 days ago <a href="#">Show description</a>	36 success 1 failure	7	<a href="#">can be tested</a> <a href="#">in performance</a>	21 commits created lines: + 238, - 14		commented 3 days ago		
	[112351] Add -OrderBy combinator		1						

# ОБНОВЛЕНИЕ

Activities Google Chrome Tue 01:57

Dashboard x +

pulls-dashboard-demo.herokuapp.com/dashboard/ClickHouse/ClickHouse?number=all

Guest

































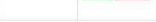




Home

## Dashboard for pull requests of <https://github.com/clickhouse/clickhouse>

Data was updated 5 minutes ago

Show sort options Show filters options Reset settings Refresh data

Search by title...

Author	Title	Tests	Details	Labels	Changes	Reviewed	Last event	Assignees	Requested reviewers
 alexeymilovidov MEMBER	[11537] Better exception message when cannot parse columns declaration list Created 7 minutes ago <a href="#">Show description</a>				1 commits created lines: + 4, - 10		 opened pull request 7 minutes ago		
 alexeymilovidov MEMBER	[11524] Avoid too large stack frames Created 5 hours ago <a href="#">Show description</a>				7 commits created lines: + 666, - 656		 made a commit 12 minutes ago		
 alexeymilovidov MEMBER	[11534] Speed up merging in AggregatingMergeTree Created an hour ago <a href="#">Show description</a>				3 commits created lines: + 91, - 29		 made a commit 15 minutes ago		
 AZAT COLLABORATOR	[11527] Fix async INSERT into Distributed for prefer_localhost_replica=0 and who internal_replication Created 4 hours ago <a href="#">Show description</a>				2 commits created lines: + 47, - 23		 assigned 16 minutes ago		
 4ertus2 MEMBER	[11513] Enable multiple_joins_rewriter_version v2 Created 9 hours ago <a href="#">Show description</a>				3 commits created lines: + 67, - 39		 made a commit 16 minutes ago		
 alexeymilovidov MEMBER	[11536] Update SIMDJSON to the latest master Created 47 minutes ago <a href="#">Show description</a>				1 commits created lines: + 15, - 7		 added a label 41 minutes ago		
 akuzm MEMBER	[11515] More stable perf tests Created 9 hours ago <a href="#">Show description</a>				3 commits created lines: + 228, - 239		 made a commit 44 minutes ago		
	[11528] Fix shard_num/replica_num for <node> (breaks				2 commits created				



# ИСПОЛЬЗОВАНИЕ

Команда ClickHouse уже начала пользоваться разработанным инструментом.

За 8 июня дашборд ClickHouse был использован 41 раз.

Дашборд для ClickHouse доступен по ссылке

<https://pulls-dashboard-demo.herokuapp.com/dashboard/ClickHouse/ClickHouse>

СПАСИБО ЗА ВНИМАНИЕ!