

TiDB Contributor 学习之路

maiyang | JEX



About me

- 杨文
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- 前小恩爱技术总监
- TiDB Contributor, [Go 夜读](https://github.com/developer-learning/night-reading-go) 发起人



目录

- 与 TiDB 结缘
- 如何参与社区?
- 行动起来
- 学到了什么?



与 TiDB 结缘



Codis



如何参与社区?



https://github.com/pingcap/community



参与方式

- 1. 使用 TiDB 后, 修复自己发现的 bug;
- 2. 修复别人在 TiDB issue 中提出的 bug(可以直接搜索标签: help wanted 和 for new contributor);
- 3. 参加 TiDB Contributor 系列活动:

【2017-03-14】十分钟成为 TiDB Contributor 系列 | 添加內建函数 https://pingcap.com/blog-cn/add-a-built-in-function/

【2017-06-22】十分钟成为 TiDB Contributor 系列 | 为 TiDB 重构 built-in 函数 https://pingcap.com/blog-cn/reconstruct-built-in-function/

. . .

【2018-03-23】萌新如何成为 TiDB Contributor | 工程师文化体现到极致 https://mp.weixin.qq.com/s?
<a href="mailto:biz=MzAwNTc3OTE5Mg==&mid=2657442826&idx=1&sn=ac5dd3c3d86d152c2540c08d5ba51932&chksm=8086879db7f10e8b2f8640c3e38d8347bf3e2d24859ecd7d192b2aba522d69af1c1ce5bf0665#rd
<a href="mailto:biz=MzAwNTc3OTE5Mg==&mid=2657442826&idx=1&sn=ac5dd3c3d86d152c2540c08d5ba51932&chksm=8086879db7f10e8b2f8640c3e38d8347bf3e2d24859ecd7d192b2aba522d69af1c1ce5bf0665#rd

- 4. 回答社区用户的疑问(安装,配置,架构设计,源码分析,问题答疑等等)
- 5. 参与文档编辑

【2017-03-27】《如何从零开始参与大型开源项目》文档编写 https://pingcap.com/blog-cn/how-to-contribute/

6. 参与渠道

微信群、GitHub issue 等。



行动起来



macOS

- >make server
- >bin/tidb-server

>mysql -h127.0.0.1 -P4000 -uroot test >SELECT * FROM t1;

遇到了问题: zsh: command not found: mysql

>brew install mysql (mysql 8)

>mysql -h127.0.0.1 -P4000 -uroot test

ERROR 1105 (HY000): Unknown charset id 255

https://github.com/pingcap/tidb/issues/6942

https://github.com/pingcap/tidb/pull/6965



对于一个开发者来说,TiDB 为我们的实践之路准备的非常好了

https://github.com/pingcap/tidb/blob/master/ CONTRIBUTING.md#building-tidb-on-a-local-osshell-environment



PR & Issue



Bugfix

```
【2017-03-16】 fix UNIX_TIMESTAMP NULL <a href="https://github.com/pingcap/tidb/pull/2852">https://github.com/pingcap/tidb/pull/2852</a>
【2017-03-22】 fix DATE_FORMAT FUNC <a href="https://github.com/pingcap/tidb/pull/2908">https://github.com/pingcap/tidb/pull/2908</a>
【2017-04-19】 fix REPLACE FUNC <a href="https://github.com/pingcap/tidb/pull/3082">https://github.com/pingcap/tidb/pull/3082</a>
【2018-02-09】 ddl: check table charset option <a href="https://github.com/pingcap/tidb/pull/5835">https://github.com/pingcap/tidb/pull/5835</a>
【2018-02-23】 *:fix some golint && ineffassign && misspell to improve GoReport Result <a href="https://github.com/pingcap/tidb/pull/5867">https://github.com/pingcap/tidb/pull/5867</a>
```



fix UNIX_TIMESTAMP NULL #2852

Edit

+11 -0

Merged zimulala merged 5 commits into pingcap:naster from unknown repository on Mar 17, 2017



-O- Commits 5

Checks 0

Files changed 2









Fix UNIX_TIMESTAMP NULL

这个bug怎么来的呢?

我在使用 MySQL 的 UNIX_TIMESTAMP 函数的时候,想到: TiDB 说基本上支持 MySQL 的所有函数,所以我就来试一下,说不定会有bug呢!!

结果真的有 bug。

测试如下:

>CREATE TABLE `t1` (`id` int(11) unsigned NOT NULL AUTO_INCREMENT, `dtime` datetime DEFAULT NULL COMMENT '时间',PRIMARY KEY (`id`)) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

>INSERT INTO 't1' ('id', 'dtime') VALUES (NULL, NULL);

>select UNIX_TIMESTAMP(dtime) from t1;

Unknown args type for unix timestamp 0

修复代码就增加两行代码搞定:

case types.KindNull:
return

但是现在这一块的代码已经被重构了。

fix DATE_FORMAT func error #2908

-O- Commits 8

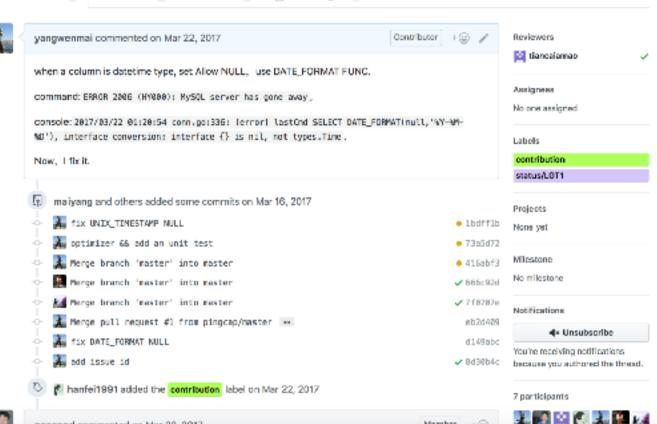
Edit

+13 -0



Morgad coocood merged 8 commits into ptograp:nester from unknown repository on Mar 22, 2017

Py Checks 0



Files changed [2]



t₩ Conversation [2]









Fix DATE_FORMAT error

SELECT DATE_FORMAT(dtime, '%Y-%M-%D') FROM t1; 修复代码只需要以下三行代码即可: if date.IsNull() { return d, nil

fix REPLACE FUNC #3082

Edit

Merged hanfei1991 merged 11 commits into pingcap:master from unknown repository on Apr 19, 2017









Fix REPLACE error

```
SELECT REPLACE('www.mysql.com', ", 'tidb') FROM t1;
修复它只需要以下四行代码:
if oldStr == "" {
    d.SetString(str)
    return d, nil
```

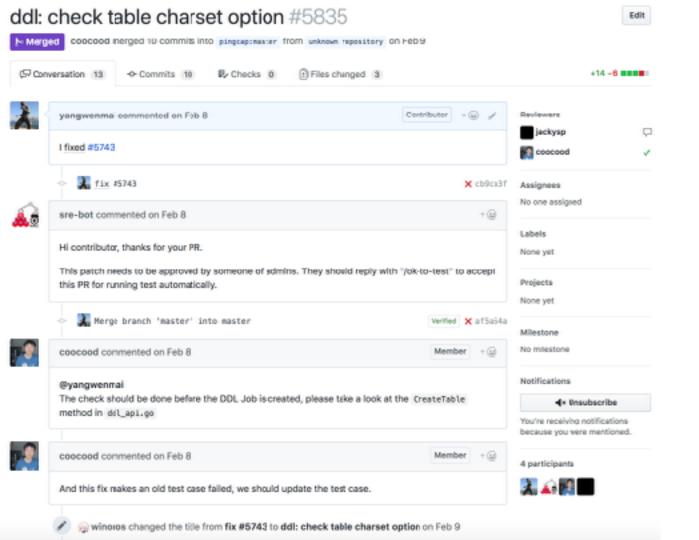


Table charset option need a valid check #5743



(B Closed | jackysp opened this issue on Jan 29 - 0 comments



jackysp commented on Jan 29	Member + (ii)	Assignees Noone assigned
Please answer these questions before submitting your issue. Thanks!		Lebelo
 What did you do? If possible, provide a recipe for reproducing the error. 		None yet
CREATE FABLE test4 (id bigist(20) NWT NULL		Projects None yet
) FMGTMF—Trunche DEFAHIT CHARSET-schooled; show create table test4;		Milestone
2. What did you expect to see?		Nomilestone
Faise an error, because no charset called "abcced".		Notifications
3. What did you see instead?		◄ () Subscribe
No error occur, and it shows the following		You're not receiving notifications from this thread.
Table Create Table test4 CREATE TABLE 'test4' (id' bigint(2%) NOT NULL) ENGINE=InnoDB DEFAULT CHARSET=abcded COLLATE=uff8_bin		1 participant
What version of TiDB are you using (tidb-server -V or run select tidb_	version(); onTiDB)?	
Release Version: v1.1.8-alpha.1-26-g84968d4f Git Commit Hash: 84968d4fe999ab6blc222c5528ffdfc159b6cd87 Git Commit Branch: master UTC Build Time: 2018-01-29 07:49:41 GOVersion: go version go1.9.2 darwin/am664		

```
788
          handleTableOptions(options, tbInfo)
789
         err = checkCharsetAndCollation(tbInfo.Charset, tbInfo.Collate)
790
         if err != nil {
791 ++
              return errors.Trace(err)
792
793
         err = d.doDDLJob(ctx, job)
794
          if err == nil {
795
              if tbInfo.AutoIncID > 1 {
802
          return errors.Trace(err)
803
       }
804
805
     +func checkCharsetAndCollation(cs string, co string) error {
         if !charset.ValidCharsetAndCollation(cs, co) {
807
              return errUnsupportedCharset.GenByArgs(cs, co)
808
         }
809
          return nil
810
     +}
811
```

PingCAP



接下来:可能看起来是很简单的fix,实际上还是挺麻烦的...



Report for github.com/pingcap/tidb

go report A+





Excellent!

Found 119 issues across 635 files

Results
gofmt 100%
go_vet 100%
gocyclo 87%
golint 100%
ineffassign 93%
license 100%
misspell 99%

gofmt

100%

Gofmt formats Go programs. We run gofmt -s on your code, where -s is for the "simplify" command

No problems detected. Good job!

go_vet

100%

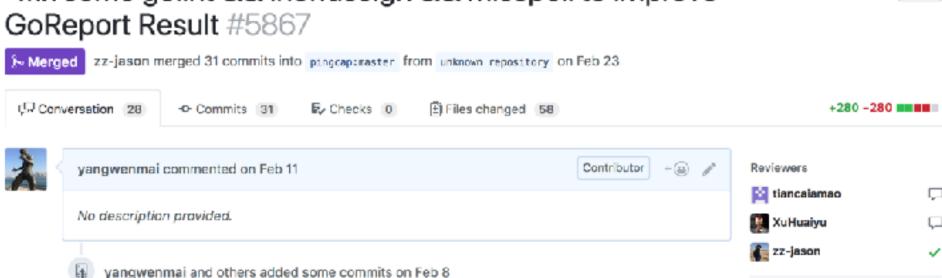
go vet examines Go source code and reports suspicious constructs, such as Printficialis whose arguments do not align with the format string.

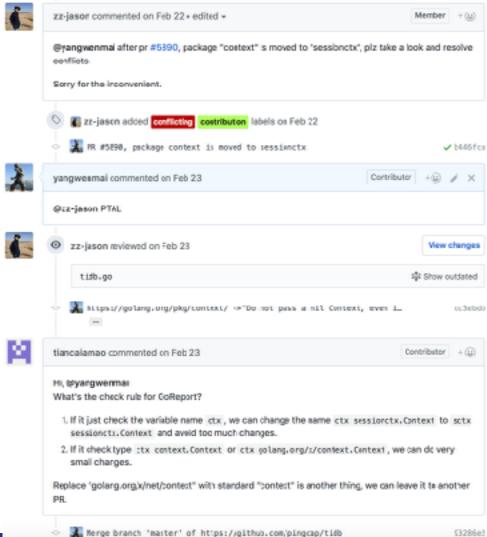
No problems detected. Good job!



Edit

*:fix some golint && ineffassign && misspell to improve

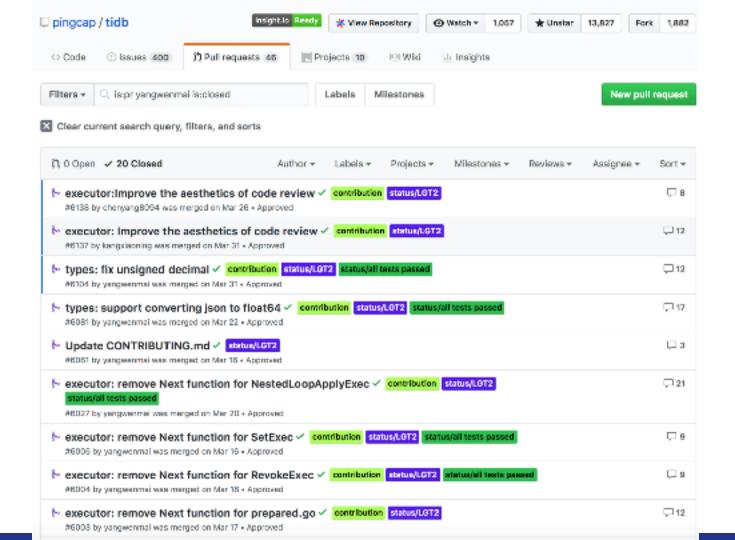








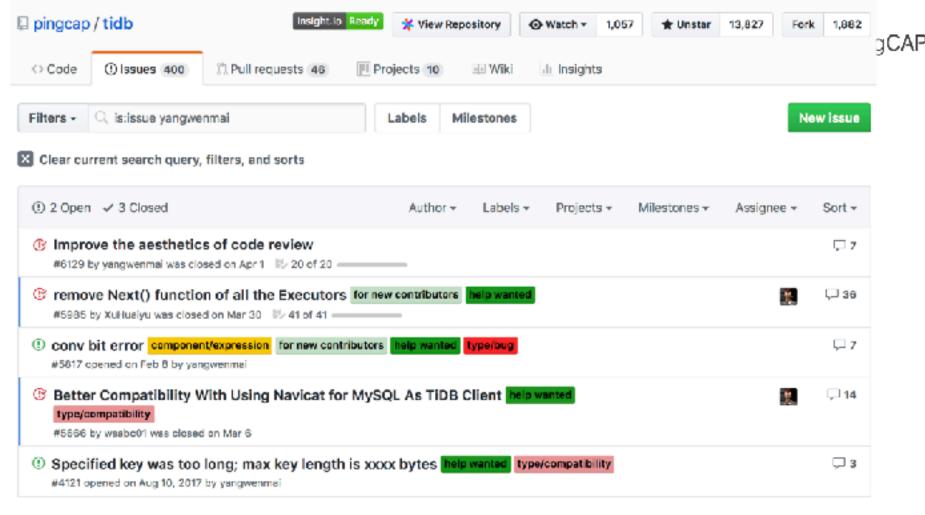
More...





by executor: remove Next function for prepared.go ✓ contribution estatus/LGT2 #8003 by yangwennai was merged on Mar 17 - Approved	□ 12
Executor: remove Next function for SimpleExec < contribution status/LGT2 status/all tests passed #8001 by yangwannai was merged on Mar 18 - Approved	Δø
**:improve code readability and unified aliases < contribution status/LGT2 status/all tests passed #5997 by yangwennai was merged on Mar 15 • Approved	Ç⊒ 13
Executor: remove Next function for UnionScanExec contribution status/LGT2 #5998 by yangwenmai was merged on Nar 14 • Approved	□ 12
executor: remove Next function for executor/write.go status/all tests passed #5995 by yangwenmal was merged on Mar 18 * Approved	□ 12
*:fix some ineffassign to improve GoReport Result ✓ contribution status/L011 #5901 by yangwennai was merged on Feb 25 • Approved	□ 5
*: don't import golang.org/x/net/context as goetx alias < ***********************************	□ 10
 *:fix some golint && ineffassign && misspell to improve GoReport Result *:status/LGT1 #5867 by yangwentral was marged on Feb 23 + Approved 	□ 28
ddl: check table charset option #5835 by yangwannai was marged on Fab 9 - Approved	Ç13
n expression, executor: rewrite builtin func reverse, × contribution #3558 by yangwennai was closed on Jul 11, 2017 + Review required	₽4
Fix REPLACE FUNC • contribution status/LGT1 #3082 by yangwennai was marged on Apr 19, 2017 + Approved	₽3
Fix UNIX_TIMESTAMP NULL #2852 by yangwentral was marged on Mar 17, 2017 ∗ Approved	₽ 6







咱们能不能把参与度升华一点呢?



萌新如何成为 TiDB Contributor?

这个来源于 PingCAP CEO 刘奇在微信群里面提的一个想法。

https://github.com/pingcap/tidb/issues/6129

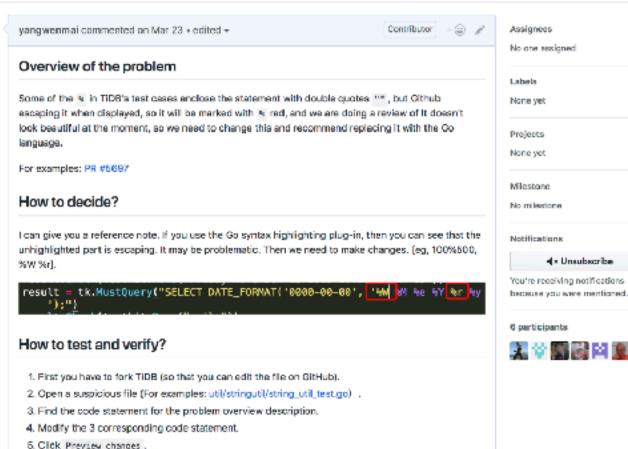
Improve the aesthetics of code review #6129

Closed yangwenmai opened this issue on Mar 23 · 7 comments

Check and verify that your changes are correct.











to add on

The above content is the original intention that we should change, but in fact we can do more.

Wrap all testkit's pending SQL statements with "1".

Therefore, we should modify the SQL statements of the following methods by the way when we modify them.

- Exec
- MustExec
- MustQuery



List ☑ executor/aggregate_test.go @yangwenmai #6130 executor/grant_test.go @kangxiaoning #6137 executor/show_test.go @chenyang8094 #6138 expression/bench_test.go @chenyang8094 #6138 expression/builtin_string_test.go @chenyang8094 #6138 expression/builtin_time_test.go @chenyang8094 #6138 expression/evaluator_test.go @kangxiaoning #6137. expression/expr_to_pb_test.go @kangxiaoning #6137 ② expression/integration_test.go @kangxiaoning #6137 expression/typeinfer_test.go @kangxiaoning #6137 parser/parser_test.go @kangxiaoning #6137 plan/physical_plan_test.go @kangxiaoning #6137 ☑ privilege/privileges/privileges_test.go @yangwenmai #6178. session/bootstrap_test.go @kangxiaoning #6137 session/session_test.go @kangxiaoning #6137 session/tidb_test.go @kangxiaoning #6137 types/format_test.go @kangxiaoning #6137. util/prefix_helper_test.go @kangxiaoning #6137. util/stringutil/string_util_test.go @yangwenmai #6177 util/ranger/ranger_test.go @hechen0 #6144 Reference

https://golang.org/ref/spec#String_literals.

yangwenmai referenced this issue on Mar 23

executor: Improve the aesthetics of code review #6130





What did I learn?

Learn CLA (Contributor License Agreement) (https://github.com/
phodal/articles/issues/3);

Practice GitHub open source collaboration

Unit test is very important

Github issue label

What is LGTM? (more: https://maiyang.me/2017/04/01/practice19-github-keywords/) [LGTM, PTAL, WIP, IMO, LGT1, LGT2, DNM...]



注意!!!

你在本地开分支做某个特性或者修复某个问题时,一定要在 issue 中标注出来,并且提一个 [WIP]xxx 的 PR



TiDB 是一个生态系统,它的周边工具链非常完备,是一个很好的实践工程。

- Github 开源实践
- Go
- Rust
- Grpc
- Docker
- Community
- TLA
- ...

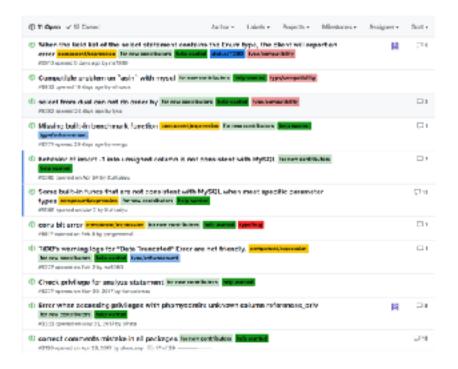


怎么样才能跟大咖们共事呢?

直接提 TiDB issue 和 PR,

大咖们等着来

Review 你的代码和你的设计方案呢!





分享文章

【2017-03-19】如何成为开源项目的 Contributor https://mp.weixin.qq.com/s?

<u>biz=MzAwNTc3OTE5Mg==&mid=2657442669&idx=1&sn=553e46d52e93b93f30eb669ff436bdb0&chksm=808680fab7f109ec089529f69501a31819f4e3b2fb02fbbafab53cfd9f1cfddddbd140485c79#rd</u>

【2017-06-20】如何在 Github Readme 里面添加徽章? https://mp.weixin.qq.com/s?

<u>biz=MzAwNTc3OTE5Mg==&mid=2657442748&idx=1&sn=a40d2e81da40bd0554aa429ae4086c5d&chksm=8086802bb7f1093d1751483cb3cedc374e7af71fa20ad445e54edadca0cdd0ca894eafe60eac#rd</u>

【2017-09-16】TiDB 集群的入门与实践 https://mp.weixin.gq.com/s?

 $\underline{biz=MzAwNTc3OTE5Mg==\&mid=2657442760\&idx=1\&sn=08bf6d7498bfadb4628ae1601ea22abb\&chksm=8086805fb7f10949cdeb6f35edb612357\\ \underline{568141e7aa4bd081ead638d53df38c7fb62e6edcafd\#rd}$

【2018-01-06】TiDB 和 MySQL 的索引实践 https://maiyang.me/2018/01/06/index-in-mysql-and-tidb/

【2018-03-09】透彻理解 git https://github.com/pingcap/tidb/blob/master/ CONTRIBUTING.md#workflow

【2018-03-14】小白是怎么对 TiDB 进行源码分析的? https://mp.weixin.qq.com/s?

<u>biz=MzAwNTc3OTE5Mg==&mid=2657442815&idx=1&sn=0e35c6558988517f01e58859c14e950b&chksm=80868068b7f1097e49f1a8ee3f0b9e1eaea4e89226fb728b6db9bb08b6982d86813896daaf3a#rd</u>



Thanks!

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