TiDB Contributor 学习之路

maiyang | JEX

About me

- 杨文
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- 前小恩爱技术总监
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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 | 添加内建函数 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?__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 https://github.com/pingcap/tidb/pull/2852

【2017-03-22】 fix DATE_FORMAT FUNC https://github.com/pingcap/tidb/pull/2908

【2017-04-19】 fix REPLACE FUNC https://github.com/pingcap/tidb/pull/3082

…

【2018-02-09】 ddl: check table charset option https://github.com/pingcap/tidb/pull/5835

【2018-02-23】 *:fix some golint && ineffassign && misspell to improve GoReport Result https://github.com/pingcap/tidb/pull/5867

…

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

Edit

PingCAP

Merged coocood merged 8 commits into pingcap:master from unknown repository on Mar 22, 2017

Conversation 2 | Commits 8 | Checks 0 | Files changed 2

+13 −0

yangwenmai commented on Mar 22, 2017   Contributor

when a column is datetime type, set Allow NULL, use DATE_FORMAT FUNC.

command: ERROR 2006 (HY000): MySQL server has gone away.

console: 2017/03/22 01:28:54 conn.go:336: [error] lastCmd SELECT DATE_FORMAT(null,'%Y-%M-%D'), interface conversion: interface {} is nil, not types.Time.

Now, I fix it.

maiyang and others added some commits on Mar 16, 2017

fix UNIX_TIMESTAMP NULL		● 1bdff1b
optimizer && add an unit test		● 73a5d72
Merge branch 'master' into master		● 416abf3
Merge branch 'master' into master		✔ 666c92d
Merge branch 'master' into master		✔ 7f8787e
Merge pull request #1 from pingcap/master	...	eb2d409
fix DATE_FORMAT NULL		d149abc
add issue id		✔ 8d38b4c

hanfei1991 added the contribution label on Mar 22, 2017

coocood commented on Mar 22, 2017   Member

Reviewers
tiancaiamao ✔

Assignees
No one assigned

Labels
contribution
status/LGT1

Projects
None yet

Milestone
No milestone

Notifications
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7 participants

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

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

⌨ Conversation 3 ·○· Commits 11 ☑ Checks 0 ☐ Files changed 2 +5 −0 ▪▪▪▪▪

yangwenmai commented on Apr 19, 2017 · edited ▾ Contributor +☺ ✎

when the `from_str` is '', use REPLACE FUNC.

```
+----------------------------------------+
| REPLACE('www.mysql.com', '', 'tidb')   |
+----------------------------------------+
| tidbwtidbwtidbwtidb.tidbmtidbytidbstidbqtidbltidb.tidbctidbotidbntidb |
+----------------------------------------+
1 row in set (0.01 sec)
```

But the correct result should be:

```
+----------------------------------------+
| REPLACE('www.mysql.com', '', 'tidb')   |
+----------------------------------------+
| www.mysql.com |
+----------------------------------------+
1 row in set (0.01 sec)
```

Reviewers

🖼 hanfei1991 ✓

Assignees

No one assigned

Labels

contribution

status/LGT1

Projects

None yet

Milestone

No milestone

Notifications

Fix REPLACE error

SELECT REPLACE('www.mysql.com', '', 'tidb') FROM t1;

修复它只需要以下四行代码：

```go
if oldStr == "" {
  d.SetString(str)
  return d, nil
}
```

ddl: check table charset option #5835

⑃ Merged   coocood merged 10 commits into `pingcap:master` from `unknown repository` on Feb 9

💬 Conversation 13	⭘ Commits 10	☑ Checks 0	⊡ Files changed 3

+14 −6 ■■■■■

---

yangwenmma commented on Feb 8 | Contributor | + 😊 ✎

I fixed #5743

↳ ⤜ fix #5743   ✖ cb9ca3f

sre-bot commented on Feb 8   + 😊

Hi contributor, thanks for your PR.

This patch needs to be approved by someone of admins. They should reply with "/ok-to-test" to accept this PR for running test automatically.

↳ ⤜ Merge branch 'master' into master | Verified | ✖ af5a54a

coocood commented on Feb 8 | Member | + 😊

@yangwenmai
The check should be done before the DDL Job is created, please take a look at the `CreateTable` method in `ddl_api.go`

coocood commented on Feb 8 | Member | + 😊

And this fix makes an old test case failed, we should update the test case.

✎ 🔴 winoros changed the title from **fix #5743** to **ddl: check table charset option** on Feb 9

Reviewers

⬛ jackysp   💬

🔵 coocood   ✓

Assignees

No one assigned

Labels

None yet

Projects

None yet

Milestone

No milestone

Notifications

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4 participants

Table charset option need a valid check #5743

jackysp opened this issue on Jan 29 · 0 comments

New issue

PingCAP

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jackysp commented on Jan 29 · Member · + ☺

Please answer these questions before submitting your issue. Thanks!

1. What did you do?
   If possible, provide a recipe for reproducing the error.

```
CREATE TABLE test4 (
id bigint(20) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=abcded;
show create table test4;
```

2. What did you expect to see?

Raise an error, because no charset called "abcded".

3. What did you see instead?

No error occur, and it shows the following

```
+-------+--------------+
| Table | Create Table |
+-------+--------------+
| test4 | CREATE TABLE `test4` (
  `id` bigint(20) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=abcded COLLATE=utf8_bin |
+-------+--------------+
```

4. What version of TiDB are you using (tidb-server -V or run select tidb_version(); on TiDB)?

```
Release Version: v1.1.0-alpha.1-26-g0496d4f
Git Commit Hash: 0496d4fe999ab0b1c222c5i28ffdfcf59b6cd87
Git Commit Branch: master
UTC Build Time: 2018-01-29 07:48:41
GoVersion:  go version go1.9.2 darwin/amd64
```

Assignees

No one assigned

Labels

None yet

Projects

None yet

Milestone

No milestone

Notifications

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1 participant

```
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 {
806    +   if !charset.ValidCharsetAndCollation(cs, co) {
807    +       return errUnsupportedCharset.GenByArgs(cs, co)
808    +   }
809    +   return nil
810    +}
811    +
```

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

A+   Excellent!   Found **119** issues across **635** files

Results

gofmt 100%
go_vet 100%
gocyclo 97%
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 Printf calls whose arguments do not align with the format string.

No problems detected. Good job!

PingCAP

*:fix some golint && ineffassign && misspell to improve GoReport Result #5867

Edit

Merged   zz-jason merged 31 commits into `pingcap:master` from `unknown repository` on Feb 23

Conversation 28   Commits 31   Checks 0   Files changed 58

+280 −280 ■■■■

yangwenmai commented on Feb 11   Contributor

No description provided.

yangwenmai and others added some commits on Feb 8

Reviewers

tiancaiamao

XuHuaiyu

zz-jason ✓

zz-jason commented on Feb 22 • edited ▾   Member +😊

@yangwenmai after pr #5390, package "costext" is moved to "sessionctx", plz take a look and resolve conflicts.

Sorry for the inconvenient.

🏷 👤 **zz-jason** added `conflicting` `contributon` labels on Feb 22

👤 PR #5890, package context is moved to sessionctx   ✔ b446fca

yangwenmai commented on Feb 23   Contributor +😊 ✏ ✕

@zz-jason PTAL

👁 **zz-jason** reviewed on Feb 23   **View changes**

    tidb.go   ⚙ Show outdated

    👤 https://golang.org/pkg/context/ →"Do not pass a nil Context, even i...   cc5ebdb
    —

👤 **tiancaiamao** commented on Feb 23   Contributor +😊

Hi, @yangwenmai
What's the check rule for GoReport?

1. If it just check the variable name `ctx`, we can change the name `ctx sessionctx.Context` to `sctx sessionctx.Context` and avoid too much changes.

2. If it check type `:tx context.Context` or `ctx golang.org/x/context.Context`, we can do very small charges.

Replace 'golang.org/x/net/context" with standard "context" is another thing, we can leave it to another PR.

👤 Merge branch 'master' of https://github.com/pingcap/tidb   f3286e?

More…

PingCAP

executor: remove Next function for prepared.go ✓ `contribution` `status/LGT2` 💬 12
#6003 by yangwenmai was merged on Mar 17 • Approved

executor: remove Next function for SimpleExec ✓ `contribution` `status/LGT2` `status/all tests passed` 💬 8
#6001 by yangwenmai was merged on Mar 16 • Approved

*:improve code readability and unified aliases ✓ `contribution` `status/LGT2` `status/all tests passed` 💬 13
#5997 by yangwenmai was merged on Mar 16 • Approved

executor: remove Next function for UnionScanExec ✓ `contribution` `status/LGT2` 💬 12
#5998 by yangwenmai was merged on Mar 14 • Approved

executor: remove Next function for executor/write.go ✓ `contribution` `status/LGT2` 💬 12
`status/all tests passed`
#5995 by yangwenmai was merged on Mar 16 • Approved

*:fix some ineffassign to improve GoReport Result ✓ `contribution` `status/LGT1` 💬 6
#5901 by yangwenmai was merged on Feb 25 • Approved

*: don't import golang.org/x/net/context as goctx alias ✓ `status/LGT2` 💬 10
#5895 by tiancaiamao was merged on Feb 24 • Approved

*:fix some golint && ineffassign && misspell to improve GoReport Result ✓ `contribution` 💬 28
`status/LGT1`
#5867 by yangwenmai was merged on Feb 23 • Approved

ddl: check table charset option ✓ 💬 13
#5835 by yangwenmai was merged on Feb 9 • Approved

expression, executor: rewrite builtin func reverse. ✗ `contribution` 💬 4
#3558 by yangwenmai was closed on Jul 11, 2017 • Review required

fix REPLACE FUNC ● `contribution` `status/LGT1` 💬 3
#3082 by yangwenmai was merged on Apr 19, 2017 • Approved

fix UNIX_TIMESTAMP NULL ● 💬 6
#2852 by yangwenmai was merged on Mar 17, 2017 • Approved

💡 ProTip! no:milestone will show everything without a milestone.

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

PingCAP

---

yangwenmai commented on Mar 23 · edited ▾   Contributor · ☺ ✎

Overview of the problem

Some of the `%` in TiDB's test cases enclose the statement with double quotes `""`, but Github escaping it when displayed, so it will be marked with `%` red, and we are doing a review of it doesn't look beautiful at the moment, so we need to change this and recommend replacing it with the Go language.

For examples: PR #6697

How to decide?

I can give you a reference note. If you use the Go syntax highlighting plug-in, then you can see that the unhighlighted part is escaping. It may be problematic. Then we need to make changes. [eg, 100%600, %W %r].

```
result = tk.MustQuery("SELECT DATE_FORMAT('0000-00-00', '%W %M %e %Y %r %y
    ');;")
```

How to test and verify?

1. First you have to fork TiDB (so that you can edit the file on GitHub).
2. Open a suspicious file (For examples: util/stringutil/string_util_test.go) .
3. Find the code statement for the problem overview description.
4. Modify the 3 corresponding code statement.
5. Click `Preview changes` .
6. Check and verify that your changes are correct.

Assignees
No one assigned

Labels
None yet

Projects
None yet

Milestone
No milestone

Notifications
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6 participants

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 `` ` ``.

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
- ☑ 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 #6176
- ☑ 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

👍 5

🔖 👤 yangwenmai referenced this issue on Mar 23

executor: Improve the aesthetics of code review #6130   🟣 Merged

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?__biz=MzAwNTc3OTE5Mg==&mid=2657442669&idx=1&sn=553e46d52e93b93f30eb669ff436bdb0&chksm=808680fab7f109ec089529f69501a31819f4e3b2fb02fbbafab53cfd9f1cfddddbd140485c79#rd

【2017-06-20】如何在 Github Readme 里面添加徽章？ https://mp.weixin.qq.com/s?__biz=MzAwNTc3OTE5Mg==&mid=2657442748&idx=1&sn=a40d2e81da40bd0554aa429ae4086c5d&chksm=8086802bb7f1093d1751483cb3cedc374e7af71fa20ad445e54edadca0cdd0ca894eafe60eac#rd

【2017-09-16】TiDB 集群的入门与实践 https://mp.weixin.qq.com/s?__biz=MzAwNTc3OTE5Mg==&mid=2657442760&idx=1&sn=08bf6d7498bfadb4628ae1601ea22abb&chksm=8086805fb7f10949cdeb6f35edb612357568141e7aa4bd081ead638d53df38c7fb62e6edcafd#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://maiyang.me/2018/03/09/learning-git/ 参考：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?__biz=MzAwNTc3OTE5Mg==&mid=2657442815&idx=1&sn=0e35c6558988517f01e58859c14e950b&chksm=80868068b7f1097e49f1a8ee3f0b9e1eaea4e89226fb728b6db9bb08b6982d86813896daaf3a#rd

Thanks!

Contact me:
www.jex.com
Wechat: mai_yang