How To Defer?

Hello!

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Working with Go for >4 years

Dgraph

The most advanced graph database in the world

Dgraph

Scalable, Distributed, Low Latency Graph Database

📍 San Francisco, California 🔗 https://dgraph.io ✉ contact@dgraph.io Verified

Pinned repositories

📖 dgraph

Fast, Distributed Graph DB

🔵 Go   ★ 11.4k   ⑂ 789

📖 badger

Fast key-value DB in Go.

🔵 Go   ★ 6.7k   ⑂ 496

📖 ristretto

A high performance memory-bound Go cache

🔵 Go   ★ 1.3k   ⑂ 60

📖 dgo

Official Dgraph Go client

🔵 Go   ★ 136   ⑂ 28

📖 dgraph4j

Official Dgraph Java client

🟤 Java   ★ 82   ⑂ 36

📖 dgraph-js

Official Dgraph JavaScript client

🟡 JavaScript   ★ 177   ⑂ 18

Find a repository…   Type: **All** ▾   Language: **All** ▾   📖 **New**

Fast, Distributed Graph DB   https://dgraph.io

graph-database   database   distributed   throughput   latency   production   golang   graphdb   go   scale

🕒 **3,291** commits   ⑂ **99** branches   🏷 **80** releases   👥 **100** contributors   ⚖ View license

Branch: master ▾   New pull request   Create new file   Upload files   Find File   Clone or download ▾

martinmr Run go fmt ./... on master (#3465)   Latest commit 889a15f 8 hours ago

📁 .github	Add Michael to docs code reviews. (#3421)	9 days ago
📁 .travis	Remove dashboard specific code from Dgraph. Also build binary for rat…	a year ago
📁 algo	Skip afterUid after decoder seek (#3149)	a month ago
📁 chunker	Add support for JSON export (#3309)	25 days ago
📁 codec	Skip afterUid after decoder seek (#3149)	a month ago
📁 compose	Add metrics for raft applied index and max assigned ts. (#3339)	8 days ago
📁 conn	Move ToGlog type to package x. (#3437)	3 days ago
📁 contrib	Disable race flag by default for tests. (#3458)	2 days ago
📁 dgraph	Run go fmt ./... on master (#3465)	8 hours ago
📁 edgraph	Move ToGlog type to package x. (#3437)	3 days ago
📁 ee	Add test for the force full backup feature. (#3456)	17 hours ago
📁 gql	Remove _predicate_ from Dgraph. (#3262)	15 days ago
📁 lex	Added gofuzz crasher inputs and fix issues (#3222)	28 days ago
📁 licenses	Make OSS builds (#2790)	6 months ago

Fast key-value DB in Go.   https://open.dgraph.io/post/badger/

key-value   golang   library   go   ssd   database   document-database

🕐 810 commits   ⑂ 18 branches   🏷 19 releases   ✈ 1 environment   👥 76 contributors   ⚖ Apache-2.0

Branch: master ▾   New pull request   Create new file | Upload files | Find File | Clone or download ▾

@ jarifibrahim Add golangci.yml (#826) …   Latest commit 0ce1d2e 18 hours ago

📁 .github	Add CODEOWNERS file.	a month ago
📁 badger	Add new API Subscribe to listen on update for the specified prefix (#771)	5 days ago
📁 contrib	Remove Linux from Travis CI matrix and add TeamCity badge	a year ago
📁 images	Cleaned up some code (#706)	4 months ago
📁 integration/testgc	Fix remaining lint warnings. (#674)	5 months ago
📁 options	Add licenses and format godoc for options so they fit within the <80 …	2 years ago
📁 pb	Add StreamWriter for fast sorted stream writes (#802)	8 days ago
📁 ristretto	Add interface Cache to ristretto package	3 months ago
📁 skl	Fix TestOneKey on Windows. (#672)	5 months ago
📁 table	Revert "Do not LoadToRAM during Open (#811)"	10 days ago
📁 y	Throttle writers while Batch Write and DB Restore (#762)	21 days ago
📄 .gitignore	Make logging configurable (#605)	7 months ago
📄 .golangci.yml	Add golangci.yml (#826)	18 hours ago
📄 .travis.yml	Bump Travis versions (#614)	7 months ago

WE ARE HIRING!

Come and join our team

Dgraph is built by a small team of engineers, working out of San Francisco.
Passionate about building world's best graph database? Join our team.

Open and Transparent

Everyone deserves to know what's going on. So just ask away.

Medical Insurance

100% health insurance coverage for you & your dependents.

Set yourself up for success

Get that Thinkpad. Or, a Macbook. That curved monitor, standing desk, ergonomic keyboard. All on the house, of course!

Reading makes you a better person

Get a free Kindle Paperwhite. Reimburse up to $1000 per year on physical books, e-books, that Walking Dead series, any thing you want to read.

Join our community

1.
What is Defer?

Defer in Go

A defer statement defers the execution of a function until the surrounding function returns

KEEP CALM AND STACK UP

2.
What can I do with it?

Use Cases of Defer

- Simple print example
- While reading and writing to files
- Closing request in a web server
- Interacting with a database
- locking and unlocking mutex variables
- Status updates (atomics)
- Golang Waitgroup
- Recover from panic (panic vs os.Exit())
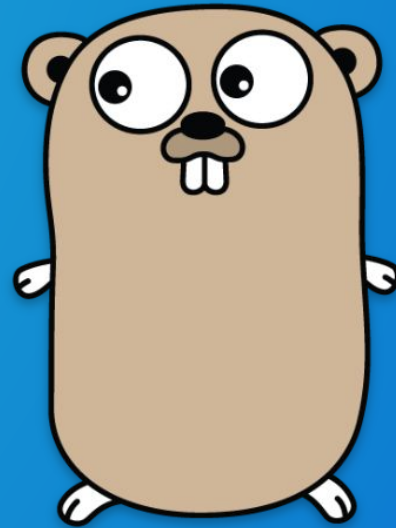
3.
Defer in Dgraph

IT'S QUIZ TIME!

What will this print?

```go
func release() func() {
    return func() {fmt.Print("closed") }
}


func main() { defer release() }
```

What does this func return?

```go
func(i int) (n int) {
    defer func(f func() int) {
        n = f()
    }(func() int {
        return i
    })
    return
}(4)
```

Will this print anything?

```go
func() {
  var run func() = nil
  defer run()
  fmt.Println("runs")
}
```

What will this print?

```go
func main() {
 {
  defer func() {
   fmt.Println("block: defer runs")
  }()
  fmt.Println("block: ends")
 }

 fmt.Println("main: ends")
}
```

4.
Implement Transactions

Transaction

request to update configuration for a service

confirmation of success

| Write conf to etcd | update conf for the service | **restart service** |

But, there is a problem!

```
9564875564   54654240404   87459823654   89564875564   5465424040
2654895465   23421404359   85123030213   02654895465   2342140435
3025165465   78553402213   13311000011   13025165465   7855340221
6540215497   49758672464   25468952654   76540215497   4975867246
7654860216   97968652031   78021328503   87654860216   9796865203
4897564202   25679561203   57920045685   54897564202   2567956120
5465465460   26456530979   48314904153   15465465460   2645653097
```

SYSTEM FAILURE

```
3245450154   34659782135   35656497652   13245450154   3465978213
4987984301   64023100002   31200124556   84987984301   6402310000
4568765435   13656462857   87976423120   24568765435   1365646285
1235435435   55645622256   31655976421   01235435435   5564562225
3021648576   79866566433   05234605242   43021648576   7986656643
3441100000   59823101346   59257561221   53441100000   5982310134
```

Thanks!

Any questions?

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