ZEOTAP

Implement Transactions Using Defer (Go)

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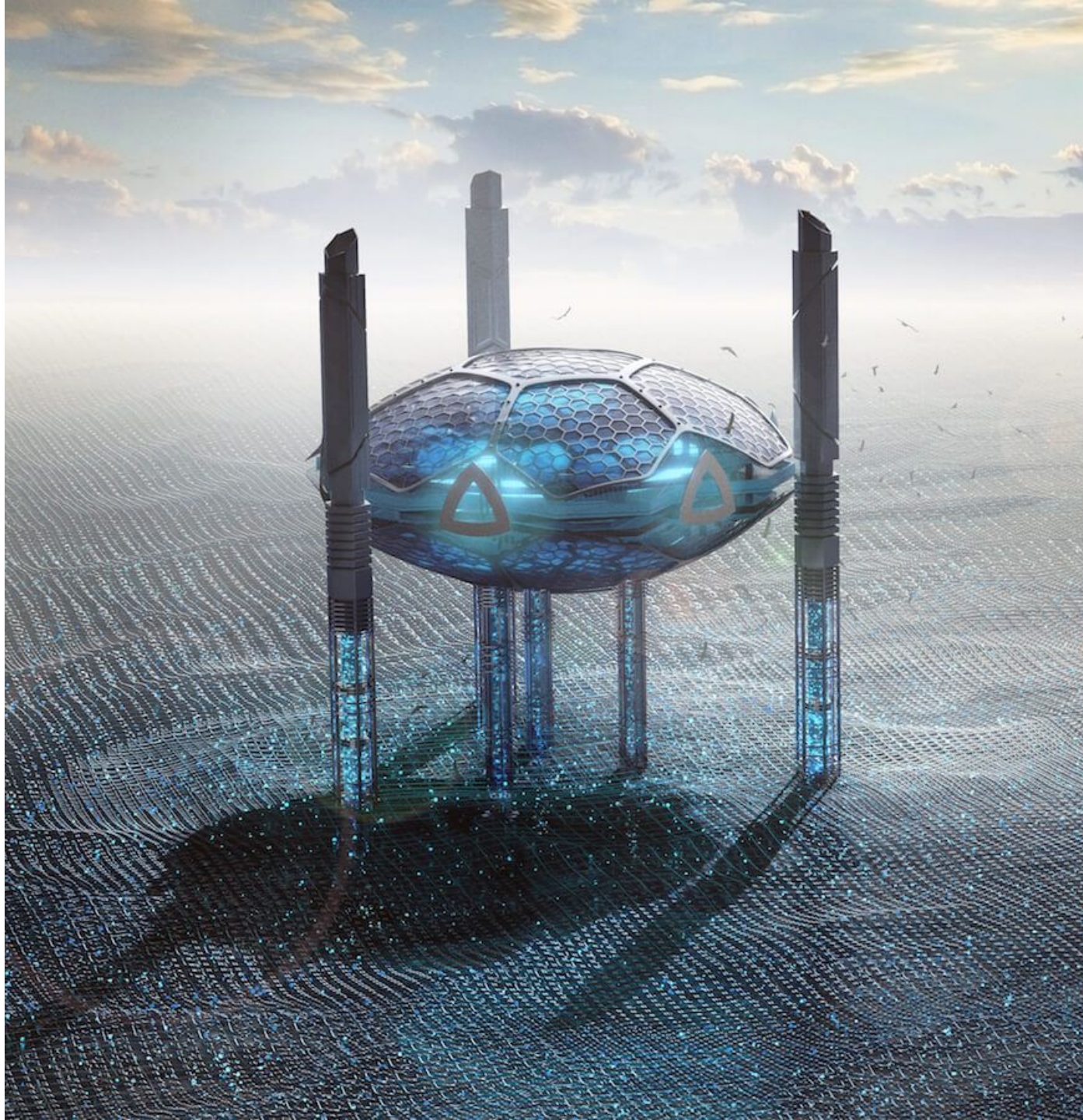
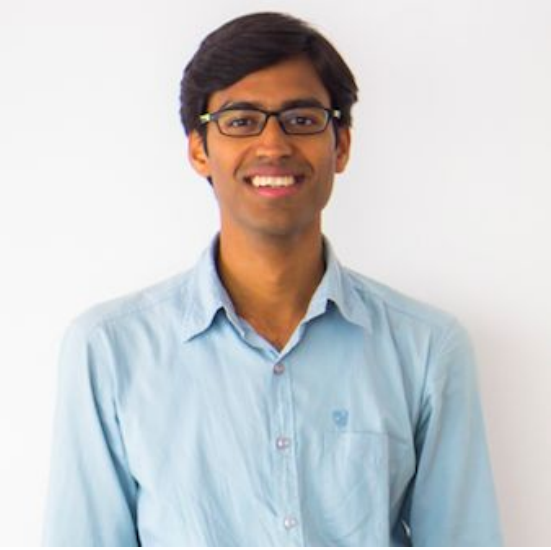


01 // My Background



Software Engineer

zeotap

Apr 2017 – Present • 1 yr 1 mo

Bengaluru, Karnataka, India

Data Engineer

Lumiata

Nov 2016 – Jan 2017 • 3 mos

Mumbai Area, India

Scale the existing Spark cluster to thousands of nodes while adding features such as efficient job scheduling, quick setup for development and production environment, self healing, seamless upgrades.

Member of Technical Staff Intern

ZeroStack

Jun 2016 – Sep 2016 • 4 mos

Mountain View, California

Added support for external storage in Zerostack as well as helped in designing architecture to add support for linux containers on top of Zerostack

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02 // What is Defer?

Defer in Golang

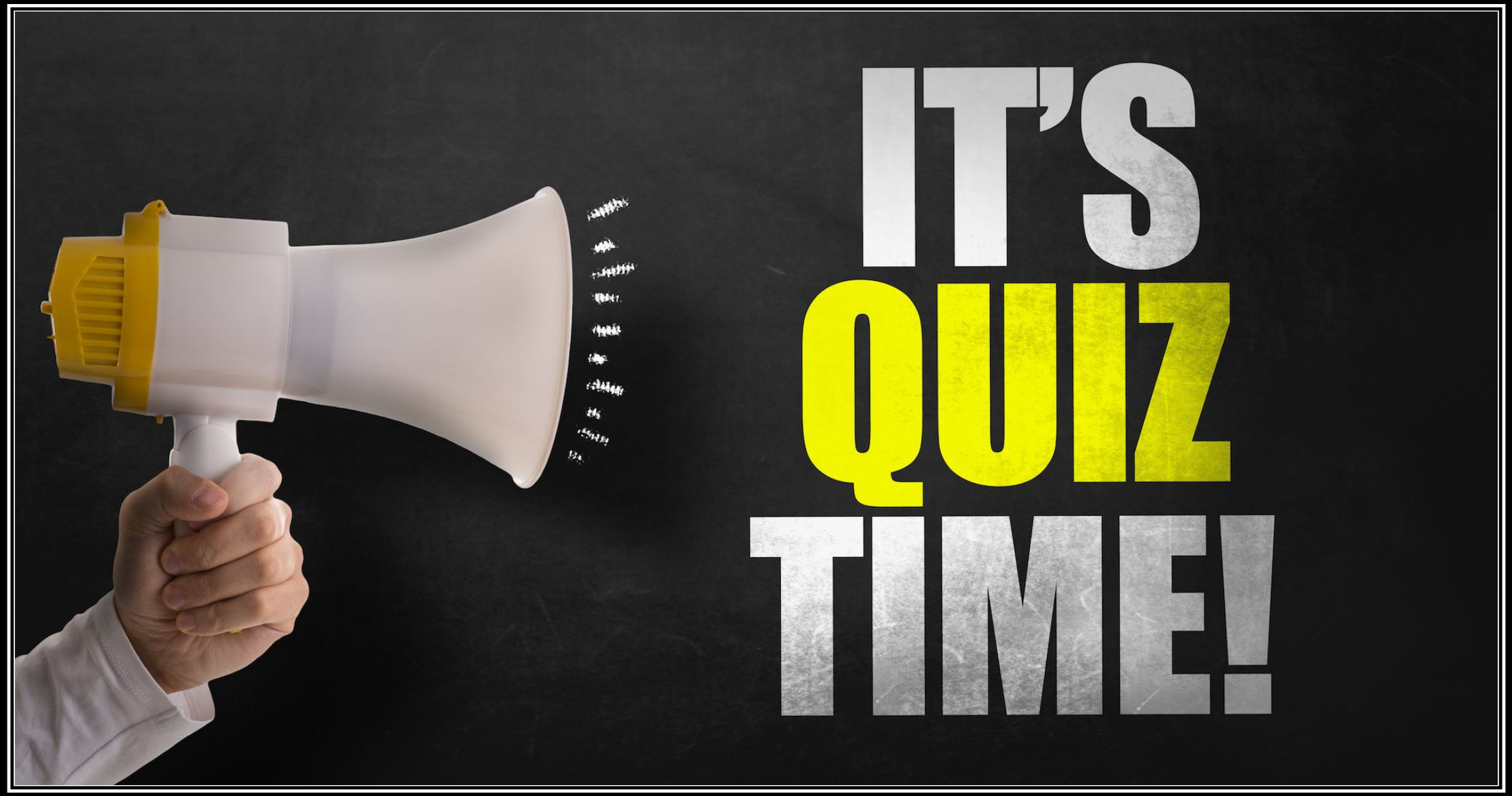
A defer statement defers the execution of a function until the surrounding function returns

03 // What can I do with it?

Use Case: Closing Resources (1)

- While reading and writing to files
- Closing request in a web server
- Interacting with a database
- locking and unlocking mutex variables
- Golang Waitgroup
- Other specific use cases

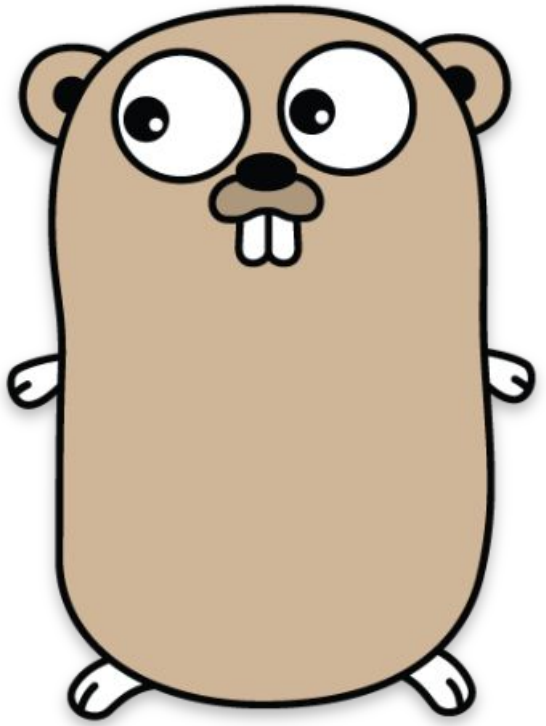
Use Case: Recover from panic (2)


IT'S
QUIZ
TIME!

What will this print?

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

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



https://twitter.com/inancgumus/status/938416572741378049

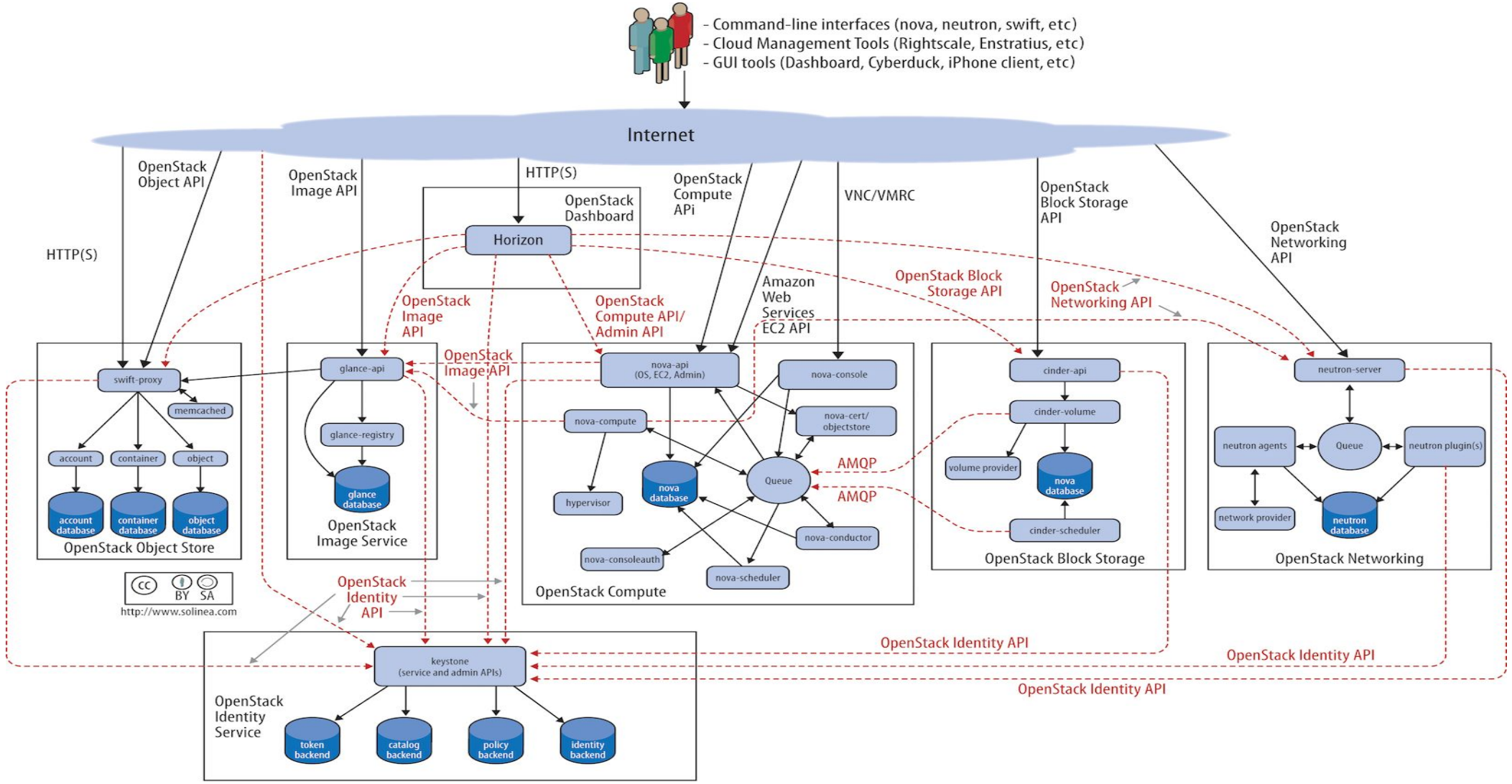
What this func returns?

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

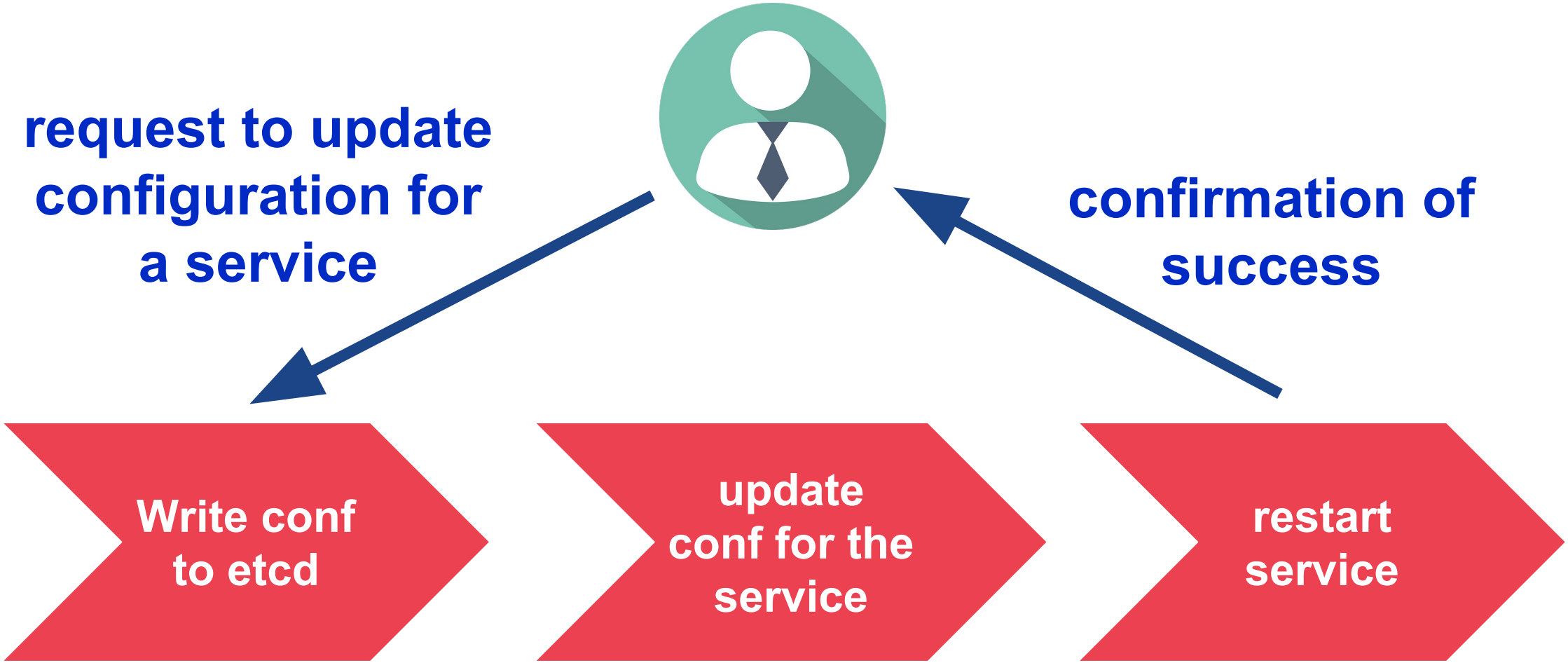
Reference: https://twitter.com/inancgumus/status/938416572741378049

04 // Implement Transactions

Quick Intro to OpenStack



Example Transaction



Demo Time

But, there is a problem!

SYSTEM FAILURE

Resources

All the code is available at
https://github.com/mangalaman93/defer

THANK YOU