Go **from** Beginner

for (assumed) Beginners

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Fin! Thanks :)

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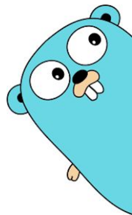
Disclaimer: As I would talk more about the go language and skip explaining basic computer science, some terms may only be familiar with those with programming background



Interesting Basics

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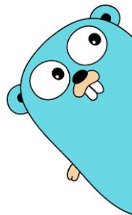
  - (usually) Same folder same package



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- Array `[3]int{1, 2, 3}` / Slice `[]int{1, 2, 3}`

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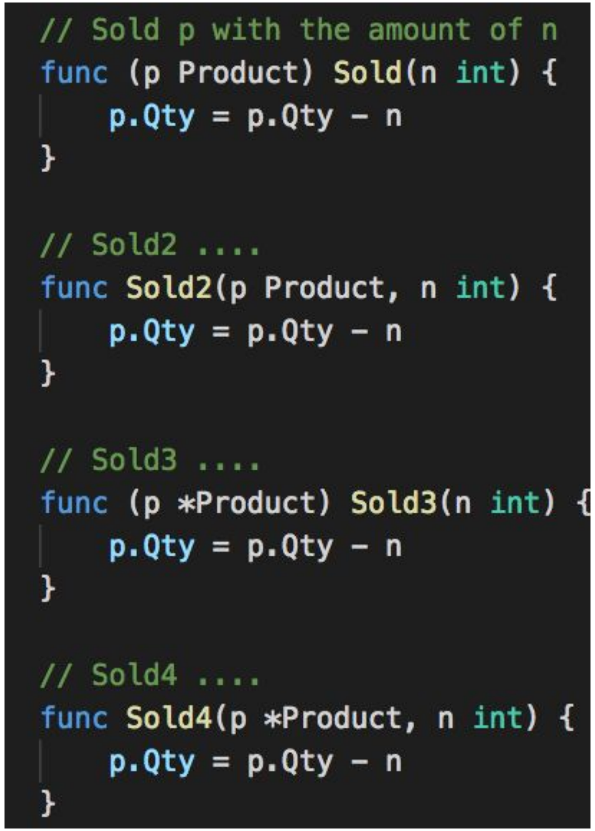

```go
// Sold p with the amount of n
func (p Product) Sold(n int) {
    p.Qty = p.Qty - n
}

// Sold2 ....
func Sold2(p Product, n int) {
    p.Qty = p.Qty - n
}

// Sold3 ....
func (p *Product) Sold3(n int) {
    p.Qty = p.Qty - n
}

// Sold4 ....
func Sold4(p *Product, n int) {
    p.Qty = p.Qty - n
}
```

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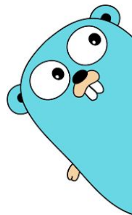
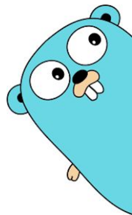
- Assert ≈ cast `interface{}` to a data type / struct (demo)
  - Because can not do *interface.value*



Not so Basic

- Goroutines (demo) (quiz)
  - Light weight thread for concurrency
  - return immediately, don’t await until the function is finished
- Channels
  - Pipe for goroutine communication
  - Send & Receive block next process
  - Useful if the next process need return value for thread functions before continue



A little More Knowledge

- Error Handling
  - Always check for error
- Test
  - File *_test.go
  - import “testing”
  - `go test`
- Go Mod: https://blog.golang.org/using-go-modules
  - Collection of packages with go.mod as root
  - Define module path and its dependency requirement (automatically)

Nice Tips

- Install plug-in on your editor to auto-format your go files

+

- Type strict
- Concurrency/Threading
- Many best practices & communities
- Go’s standard lib is enough
- Build in unit-test
- Standardized culture

-

- Type strict
- Parsing JSON becomes difficult, especially if the JSON is too dynamic

Useful References

- General Cheat Sheets: https://github.com/a8m/golang-cheat-sheet
- Data Types Cheat Sheets: https://github.com/emirpasic/gods
- Goroutine & Channel: https://golangbot.com/goroutines/ | https://golangbot.com/channels/
- Packages lib: https://github.com/avelino/awesome-go
- Medium
- StackOverflow
- Google

Fin! Thanks :)

It’s real, Qs?

Footnotes

Named return value

```
func split(a, b int) (x, y int) {
    x = a + b
    y = a - b
    return
}
```

Back to Basics

Defer example

```
f := createFile("/tmp/defer.txt")
    defer closeFile(f)
    writeFile(f)
```

Back to Basics