

The screenshot shows a Sublime Text editor window with a dark theme. The title bar reads "E:\Go\Video_Courses\02Go Websocket\temp.go (gwadmin) - Sublime Text". The status bar at the bottom says "Fatal: func(v ...interface{}) Line 15, Column 23; Copied 17 characters". The code editor contains the following Go code:

```
temp.go
1 package main
2
3 import (
4     "io"
5     "log"
6     "net/http"
7 )
8
9 func main() {
10    // 设置路由
11    http.HandleFunc("/", sayHello)
12
13    err := http.ListenAndServe(":8080", nil)
14    if err != nil {
15        log.Fatal(err)
16    }
17 }
18
19 func sayHello(w http.ResponseWriter, r *http.Request) {
20     io.WriteString(w, "Hello, World!")
21 }
22
```

E:\Go\Video_Courses\01Go编程基础\go-fundamental-programming\temp.go (gowalker, goconfig, gopm) - Sublime Text

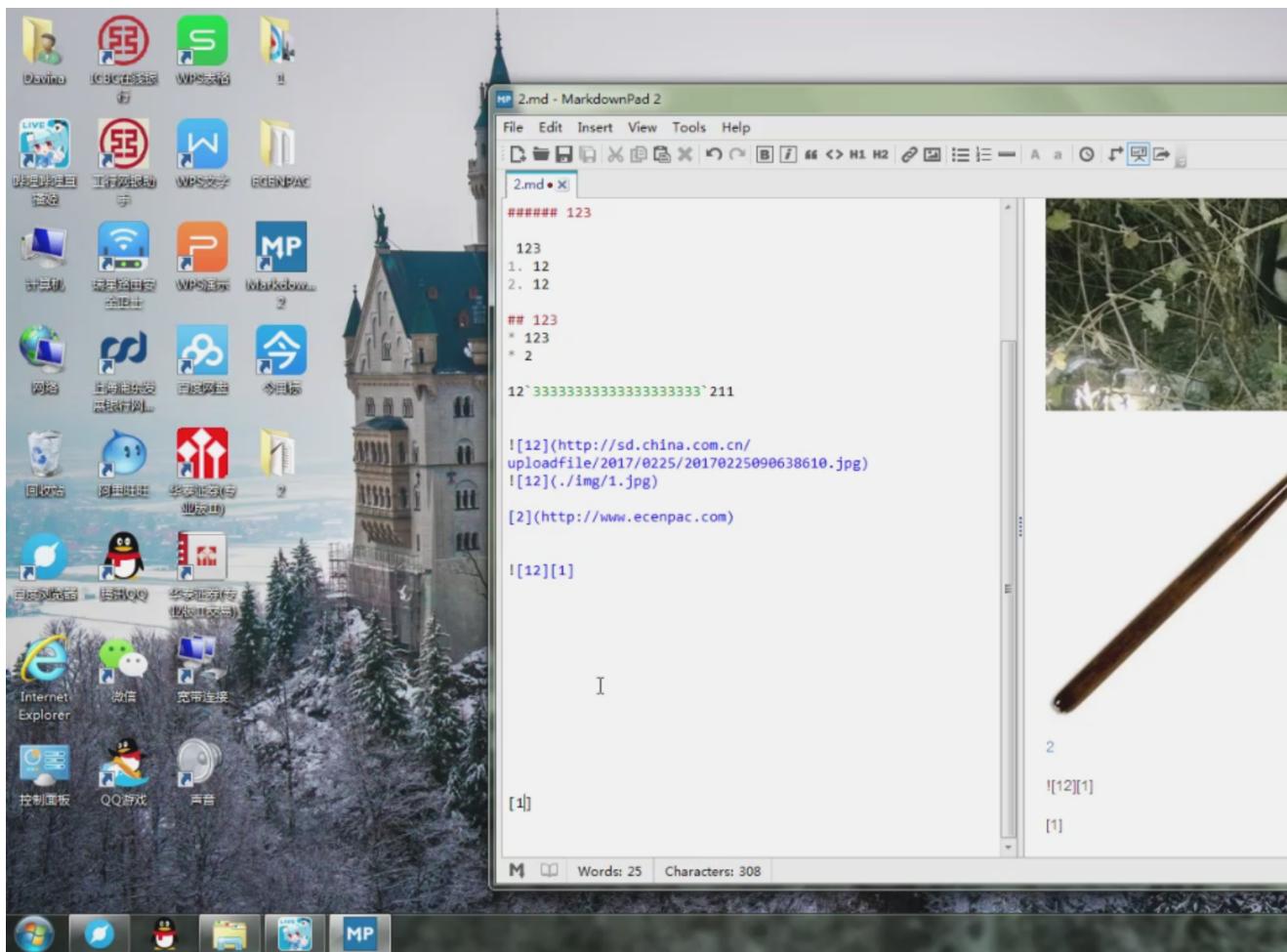
File Edit Selection Find View Goto Tools Project Preferences Help

Go编程

temp.go

```
1 package main
2
3 import (
4     "fmt"
5 )
6
7 func main() {
8     s := []string{"a", "b", "c"}
9     for _, v := range s {
10         go func() {
11             fmt.Println(v)
12         }()
13     }
14 }
15 }
```

Line 10, Column 17



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Go编程基础

```
temp.go x
1 package main
2
3 import (
4     "fmt"
5     "time"
6 )
7
8 func main() {
9     c := make(chan bool)
10    select {
11        case v := <-c:
12            fmt.Println(v)
13        case <-time.After(3 * time.Second):
14            fmt.Println("Timeout")
15    }
16 }
17

// time After func
//
// After waits for the duration to elapse and then sends the current time
// on the returned channel.
// It is equivalent to NewTimer(d).C.
func After(d Duration) <-chan Time { ... }

// time test.ExampleAfter func
//
func ExampleAfter() { ... }
```

Line 17, Column 1: Copied 356 characters

幻灯片 大纲

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54 Go编程基础

55 Go编程基础

56 相关资源

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幻灯片 第 53 张，共 56 张 | “主管人员” | 中文(中国) | 96%

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temp.go

```
1 package main
2
3 import (
4     "fmt"
5 )
6
7 func main() {
8     c1, c2 := make(chan int), make(chan string)
9     o := make(chan bool)
10    go func() {
11        for {
12            select {
13                case v, ok := <-c1:
14                    if !ok {
15                        o <- true
16                        break
17                    }
18                    fmt.Println("c1", v)
19                case v, ok := <-c2:
20                    if !ok {
21                        o <- true
22                        break
23                    }
24                    fmt.Println("c2", v)
25            }
26        }
27    }()
28
29    c1 <- 1
30    c2 <- "hi"
31    c1 <- 3
32    c2 <- "hello"
33
34    close(c1)
35
36    <-o
37 }
```

close: func(channel). Line 34, Column 14: Saved E:\Go\Video_Courses\01Go编程基础\go-fundamental-programming\temp.go (UTF-8)

E:\Go\Video_Courses\01Go编程基础\go-fundamental-programming\temp.go (gowalker, goconfig, gopm) - Sublime Text

File Edit Selection Find View Goto Tools Project Preferences Help

Go编程基础

```
temp.go x
1 package main
2
3 import (
4     "fmt"
5     "runtime"
6     "sync"
7 )
8
9 func main() {
10    runtime.GOMAXPROCS(runtime.NumCPU)
11    wg := sync.WaitGroup{}
12    wg.Add(10)
13    for i := 0; i < 10; i++ {
14        go Go(&wg, i)
15    }
16
17    wg.Wait()
18 }
19
20 func Go(wg *sync.WaitGroup, index int) {
21    a := 1
22    for i := 0; i < 10000000; i++ {
23        a += i
24    }
25    fmt.Println(index, a)
26
27    wg.Done()
28 }
```

Git Bash

```
$ 49999995000001
2 49999995000001
8 49999995000001
3 49999995000001
7 49999995000001
6 49999995000001
9 49999995000001
Unknown@UNKNOWN-PC /e/Go/Video_Courses/01Go编程基础/go-fundamental-program
master)
$ go run temp.go
2 49999995000001
1 49999995000001
3 49999995000001
4 49999995000001
5 49999995000001
6 49999995000001
7 49999995000001
8 49999995000001
9 49999995000001
Unknown@UNKNOWN-PC /e/Go/Video_Courses/01Go编程基础/go-fundamental-program
master)
$ go run temp.go
2 49999995000001
1 49999995000001
3 49999995000001
4 49999995000001
5 49999995000001
6 49999995000001
7 49999995000001
8 49999995000001
9 49999995000001
Unknown@UNKNOWN-PC /e/Go/Video_Courses/01Go编程基础/go-fundamental-program
master)
$ go run temp.go
```

Go编程基

```
temp.go x
1 package main
2
3 import (
4     "fmt"
5     "runtime"
6 )
7
8 func main() {
9     runtime.GOMAXPROCS(runtime.NumCPU())
10    c := make(chan bool, 10)
11    for i := 0; i < 10; i++ {
12        go Go(c, i)
13    }
14
15    for i := 0; i < 10; i++ {
16        <-c
17    }
18 }
19
20 func Go(c chan bool, index int) {
21     a := 1
22     for i := 0; i < 10000000; i++ {
23         a += i
24     }
25     fmt.Println(index, a)
26
27     c <- true
28 }
```

Go编程基

```
temp.go *
1 package main
2
3 import (
4     "fmt"
5     "runtime"
6 )
7
8 func main() {
9     runtime.GOMAXPROCS(rune)
10    c := make(chan bool)rune
11    for i := 0; i < 10;rune
12        go Go(c, i)
13    }
14    <-c
15 }
16
17 func Go(c chan bool, index int) {
18     a := 1
19     for i := 0; i < 10000000; i++ {
20         a += i
21     }
22     fmt.Println(index, a)
23
24     if index == 9 {
25         c <- true
26     }
27 }
```

GOMAXPROCS: func(int) int. Line 9, Column 26 - Field 1 of 2

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Go编程基

```
temp.go
1 package main
2
3 import (
4     "fmt"
5 )
6
7 func main() {
8     c := make(chan bool)
9     go func() {
10         fmt.Println("Go Go Go!!!")
11         c <- true
12         close(c)
13     }()
14     for v := range c {
15         fmt.Println(v)
16     }
17 }
18
```

Line 13, Column 8

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Go编程基

```
temp.go x
1 package main
2
3 import (
4     "fmt"
5 )
6
7 func main() {
8     c := make(chan bool)
9     go func() {
10         fmt.Println("Go Go Go!!!")
11         c <- true
12     }()
13     <-c
14 }
15
```

4 characters selected. Copied 4 characters

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Go编程基

```
temp.go x
1 package main
2
3 import (
4     "fmt"
5     "time"
6 )
7
8 func main() {
9     go Go()
10    time.Sleep(2 * time.Second)
11 }
12
13 func Go() {
14     fmt.Println("Go Go Go!!!")
15 }
16
```

Println: func(a ...interface{}) (n int, err error). Line 14, Column 5. Copied 7 characters

Go编程基础-课堂讲义.pptx - Microsoft PowerPoint

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53 Go编程基础

54 Go编程基础

55 Go编程基础

56 相关资源

并发 concurrency

- 很多人都是冲着 Go 大肆宣扬的高并发而忍不住跃跃欲试
源码的解析来看，goroutine 只是由官方实现的超级“线程”
不过话说回来，每个实例 4-5KB 的栈内存占用和由于实现机制
减少的创建和销毁开销，是制造 Go 号称的高并发的根本原因。
goroutine 的简单易用，也在语言层面上给予了开发者巨大的

并发不是并行：Concurrency Is Not Parallelism

- 并发主要由切换时间片来实现“同时”运行，在并行则是多核实现多线程的运行，但 Go 可以设置使用核数，以发挥多核的能力。

Goroutine 奉行通过通信来共享内存，而不是共享内存来通信

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Go 编程基础

The screenshot shows a Sublime Text editor with a file named `temp.go` open. The code demonstrates reflection in Go. It defines a `User` struct and two functions: `Hello` and `main`. The `Hello` function prints a greeting with a user's name. The `main` function creates a `User` instance, retrieves its `Hello` method using `reflect.ValueOf`, and calls it with the argument "joe".

```
temp.go
1 package main
2
3 import (
4     "fmt"
5     "reflect"
6 )
7
8 type User struct {
9     Id    int
10    Name string
11    Age   int
12 }
13
14 func (u User) Hello(name string) {
15     fmt.Println("Hello", name, ", my name is", u.Name)
16 }
17
18 func main() {
19     u := User{1, "OK", 12}
20     v := reflect.ValueOf(u)
21     mv := v.MethodByName("Hello")
22
23     args := []reflect.Value{reflect.ValueOf("joe")}
24     mv.Call(args)
25 }
```

To the right of the editor is a terminal window titled "Git Bash" showing the output of running the program. The output shows the panic message, the execution of the program, and the final output "Hello joe , my name is OK".

```
Git Bash
$ go run temp.go
panic: reflect: call of reflect.Value.Elem
goroutine 1 [running]:
reflect.Value.Elem(0x4869e0, 0x7b, 0x20, 0x
D:/go/src/pkg/reflect/value.go:776
main.main()
E:/Go/Video_Courses/01Go编程基础/go
0x5b

goroutine 2 [runnable]:
exit status 2
Unknown@UNKNOWN-PC /e/Go/Video_Courses/01Go
master)
$ go run temp.go
999
Unknown@UNKNOWN-PC /e/Go/Video_Courses/01Go
master)
$ go run temp.go
{1 BYEBYE 12}
Unknown@UNKNOWN-PC /e/Go/Video_Courses/01Go
master)
$ go run temp.go
{1 OK 12}
Unknown@UNKNOWN-PC /e/Go/Video_Courses/01Go
master)
$ go run temp.go
BAD
{1 OK 12}
Unknown@UNKNOWN-PC /e/Go/Video_Courses/01Go
master)
$ go run temp.go
{1 BYEBYE 12}
Unknown@UNKNOWN-PC /e/Go/Video_Courses/01Go
master)
$ go run temp.go
Hello joe , my name is OK
Unknown@UNKNOWN-PC /e/Go/Video_Courses/01Go
master)
$ go run temp.go
Hello joe , my name is OK
Unknown@UNKNOWN-PC /e/Go/Video_Courses/01Go
master)
$
```

```
temp.go  x
1 package main
2
3 import (
4     "fmt"
5     "reflect"
6 )
7
8 func main() {
9     x := 123
10    v := reflect.ValueOf(&x)
11    v.Elem().SetInt(999)  [
12
13    fmt.Println(x)
14 }
15
```

ValueOf: func(i interface{}) reflect.Value. Line 10, Column 27. Saved E:\Go\Video_Courses\01Go编程基础\go-fundamental-programming\temp.go (UTF-8)

The screenshot shows a development environment for Go programming. On the left, a Sublime Text window displays the file `temp.go` with the following code:

```
temp.go  x
1 package main
2
3 import (
4     "fmt"
5     "reflect"
6 )
7
8 type User struct {
9     Id    int
10    Name string
11    Age   int
12 }
13
14 type Manager struct {
15     User
16     title string
17 }
18
19 func main() {
20     m := Manager{User: User{1, "OK", 12}, title: "123"}
21     t := reflect.TypeOf(m)
22
23     fmt.Printf("%#v\n", t.FieldByIndex([]int{0, 1}))
24 }
25
```

A tooltip at the bottom of the code editor indicates: `FieldByIndex: func(index []int) reflect.StructField. Line 23, Column 50`.

On the right, a terminal window titled "Git Bash" shows the command-line history and output of running the program:

```
E:/Go/Video_Courses/01Go编程基础/temp.go
0x6f
goroutine 2 [Runnable]:
exit status 2
Unknown@UNKNOWN-PC /e/Go/Video_Courses/01G
master)
$ go run temp.go
# command-line-arguments
E:\Go\Video_Courses\01Go\00000\go-fundame
rted and not used: "fmt"
E:\Go\Video_Courses\01Go\00000\go-fundame
rted and not used: "reflect"
E:\Go\Video_Courses\01Go\00000\go-fundame
defined: Info
E:\Go\Video_Courses\01Go\00000\go-fundame
defined: u
Unknown@UNKNOWN-PC /e/Go/Video_Courses/01G
master)
$ go run temp.go
{{1 OK 12} 123}
Unknown@UNKNOWN-PC /e/Go/Video_Courses/01G
master)
$ go run temp.go
reflect.StructField{Name:"User", PkgPath:""
g:"", Offset:0x0, Index:[]int{0}, Anonymou
Unknown@UNKNOWN-PC /e/Go/Video_Courses/01G
master)
$ go run temp.go
reflect.StructField{Name:"title", PkgPath:""
g:"", Offset:0x20, Index:[]int{1}, Anonymou
Unknown@UNKNOWN-PC /e/Go/Video_Courses/01G
master)
$ go run temp.go
reflect.StructField{Name:"Id", PkgPath:""
g:"", Offset:0x0, Index:[]int{0}, Anonymous:
Unknown@UNKNOWN-PC /e/Go/Video_Courses/01G
master)
$ go run temp.go
reflect.StructField{Name:"Name", PkgPath:""
g:"", Offset:0x8, Index:[]int{1}, Anonymous:
Unknown@UNKNOWN-PC /e/Go/Video_Courses/01G
master)
$
```

```
E:\Go\Video_Courses\01Go编程基础\go-fundamental-programming\temp.go (gowalker, goconfig, gopm) - Sublime Text
File Edit Selection Find View Goto Tools Project Preferences Help

temp.go
1 package main
2
3 import (
4     "fmt"
5     "reflect"
6 )
7
8 type User struct {
9     Id    int
10    Name string
11    Age   int
12 }
13
14 type Manager struct {
15     User
16     title string
17 }
18
19 func main() {
20     m := Manager{User: User{1, "OK", 12}, title: "123"}
21     t := reflect.TypeOf(m)
22
23     fmt.Printf("%#v\n", t.Field(1))
24 }
25

Printf: printf(format string, a ...interface{}) in int, err error. Line 23, Column 36
```

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50 相关资源

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Go编程基

E:\Go\Video_Courses\01Go编程基础\go-fundamental-programming\temp.go (gowalker, goconfig, gopm, udcs-server, udcs-client, udcs-utils) - Sublime Text

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temp.go

```
1 package main
2
3 type Connector interface {
4     Connect()
5 }
6
7 type PhoneConnector struct {
8     name string
9 }
10
11 func (pc PhoneConnector) Name() string {
12     return pc.name
13 }
14
15 func (pc PhoneConnector) Connect() {
16     fmt.Println("Connected:", pc.name)
17 }
18
19 func main() {
20     a := PhoneConnector{"PhoneConnector"}
21     a.Connect()
22     Disconnect(a)
23 }
24
25 func Disconnect(usb interface{}) {
26     switch v := usb.(type) {
27     case PhoneConnector:
28         fmt.Println("Disconnected:", v.name)
29     default:
30         fmt.Println("Unknown device.")
31     }
32 }
```

6 lines, 131 characters selected

Go编程基

The screenshot shows a Sublime Text editor window with the file 'temp.go' open. The code defines a 'Connector' interface and a 'PhoneConnector' struct that implements it. It includes a main function that creates a PhoneConnector, connects it, and then disconnects it. A 'Disconnect' function is also defined to handle USB devices.

```
temp.go
1 package main
2
3 type Connector interface {
4     Connect()
5 }
6
7 type PhoneConnector struct {
8     name string
9 }
10
11 func (pc PhoneConnector) Name() string {
12     return pc.name
13 }
14 func (pc PhoneConnector) Connect() {
15     fmt.Println("Connected:", pc.name)
16 }
17
18 func main() {
19     a := PhoneConnector{"PhoneConnector"}
20     a.Connect()
21     Disconnect(a)
22 }
23
24 func Disconnect(usb interface{}) {
25     if pc, ok := usb.(PhoneConnector); ok {
26         fmt.Println("Disconnected:", pc.name)
27     } else {
28         fmt.Println("Unknown device.")
29     }
30 }
```

This screenshot shows the same 'temp.go' file in Sublime Text, but with the cursor positioned on the opening brace of the 'ok {' condition in the 'Disconnect' function's if statement.

```
temp.go
1 package main
2
3 type Connector interface {
4     Connect()
5 }
6
7 type PhoneConnector struct {
8     name string
9 }
10
11 func (pc PhoneConnector) Name() string {
12     return pc.name
13 }
14 func (pc PhoneConnector) Connect() {
15     fmt.Println("Connected:", pc.name)
16 }
17
18 func main() {
19     a := PhoneConnector{"PhoneConnector"}
20     a.Connect()
21     Disconnect(a)
22 }
23
24 func Disconnect(usb USB) {
25     if pc, ok := usb.(PhoneConnector); ok{
```

The screenshot shows a Sublime Text editor window with the following Go code:

```
temp.go
1 package main
2
3 import (
4     "fmt"
5 )
6
7 type USB interface {
8     Name() string
9     Connecter
10 }
11
12 type Connecter interface {
13     Connect()
14 }
15
16 type PhoneConnecter struct {
17     name string
18 }
19
20 func (pc PhoneConnecter) Name() string {
21     return pc.name
22 }
23 func (pc PhoneConnecter) Connect() {
24     fmt.Println("Connected:", pc.name)
25 }
26
27 func main() {
28     a := PhoneConnecter{"PhoneConnecter"}
29     a.Connect()
30     Disconnect(a)
31 }
32
33 func Disconnect(usb USB) {
34     if pc,ok:=usb.()
35         fmt.Println("Disconnected.")
36 }
37
```

The code defines an `USB` interface with a `Name()` method and a `Connecter` interface. It also defines a `PhoneConnecter` struct that implements the `PhoneConnecter` interface. The `main` function creates a `PhoneConnecter` instance, connects it, and then disconnects it. The `Disconnect` function takes an `USB` interface and prints a message if it's disconnected.

E:\Go\Video_Courses\01Go编程基础\go-fundamental-programming\temp.go (gowalker, goconfig, gopm, ucds-server, ucds-client, ucds-utils) - Sublime Text

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Go 编程基

```
temp.go x
1 package main
2
3 import (
4     "fmt"
5 )
6
7 type TZ int
8
9 func main() {
10     var a TZ
11     a.Print()
12     (*TZ).Print(&a)
13 }
14
15 func (a *TZ) Print() {
16     fmt.Println("TZ")
17 }
18
```

Print: func(), 2 lines, 26 characters selected: Copied 26 characters

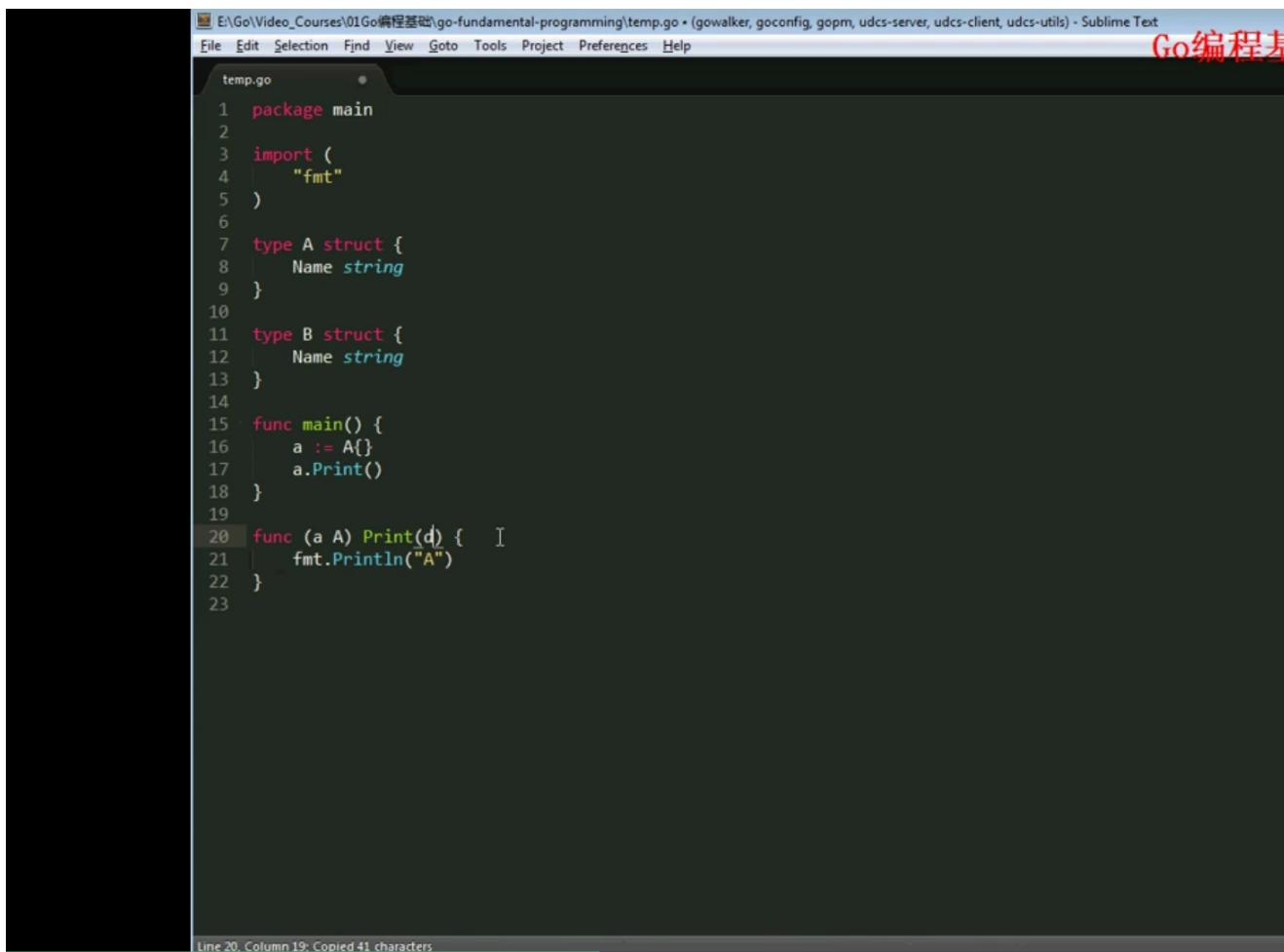
E:\Go\Video_Courses\01Go编程基础\go-fundamental-programming\temp.go (gowalker, goconfig, gopm, ucds-server, ucds-client, ucds-utils) - Sublime Text

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Go 编程基

```
temp.go x
1 package main
2
3 import (
4     "fmt"
5 )
6
7 type TZ int
8
9 func main() {
10     var a TZ
11     a.Print()
12 }
13
14 func (a *TZ) Print() {
15     fmt.Println("TZ")
16 }
17
```

3 lines, 43 characters selected: Copied 43 characters



The screenshot shows a Sublime Text editor window with the following details:

- Title Bar:** E:\Go\Video_Courses\01Go编程基础\go-fundamental-programming\temp.go + (gowalker, goconfig, gopm, udcs-server, udcs-client, udcs-utils) - Sublime Text
- Text Area:** The code is in a file named `temp.go`. The code defines two structs, `A` and `B`, and a `main` function. The `Print` method is partially implemented for struct `A`.

```
temp.go
1 package main
2
3 import (
4     "fmt"
5 )
6
7 type A struct {
8     Name string
9 }
10
11 type B struct {
12     Name string
13 }
14
15 func main() {
16     a := A{}
17     a.Print()
18 }
19
20 func (a A) Print(d) {
21     fmt.Println("A")
22 }
```
- Status Bar:** Line 20, Column 19: Copied 41 characters

E:\Go\Video_Courses\01.Go编程基础\go-fundamental-programming\temp.go (gowalker) - Sublime Text 2 (UNREGISTERED)

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Go编程基

FOLDERS

temp.go closure.go

```
1 package main
2
3 import (
4     "fmt"
5 )
6
7 func main() {
8     var fs = [4]func(){}
9
10    for i := 0; i < 4; i++ {
11        defer fmt.Println("defer i = ", i)
12        defer func() { fmt.Println("defer_closure i = ", i) }()
13        fs[i] = func() { fmt.Println("closure i = ", i) }
14    }
15
16    for _, f := range fs {
17        f()
18    }
19 }
```

Go编程基础-课堂讲义.pptx - Microsoft PowerPoint

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Go编程基

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Go编程基础

defer

- 的执行方式类似其它语言中的析构函数，在函数体执行结束按照调用顺序的**相反顺序**逐个执行
- 即使函数发生**严重错误**也会执行
- 支持匿名函数的调用
- 常用于资源清理、文件关闭、解锁以及记录时间等操作
- 通过与匿名函数配合可在return之后**修改**函数计算结果
- 如果函数体内某个变量作为defer时匿名函数的参数，则在时即已经获得了拷贝，否则则是引用某个变量的地址
- Go 没有异常机制，但有 panic/recover 模式来处理错误
- Panic 可以在任何地方引发，但recover**只有**在defer调用的

讲师：

单击此处添加备注

The screenshot shows a Go programming environment with a code editor and a terminal window.

Code Editor (Sublime Text 2):

```
temp.go
1 package main
2
3 import (
4     "fmt"
5 )
6
7 func main() {
8     a := []int{1, 2, 3, 4, 5}
9     s1 := a[2:5]
10    s2 := a[1:3]
11    fmt.Println(s1, s2)
12    s1[0] = 9
13    fmt.Println(s1, s2)
14 }
15
```

Terminal (Git Bash):

```
Line 10, Column 17
temp.go
Tab Size: 4
GoSublime
96%  
Go编程基础  
基础  
Git Bash  
0x121  
goroutine 2 [syscall]:  
created by runtime.main  
C:/Users/ADMINI~1/App  
me/proc.c:221  
exit status 2  
Unknown@UNKNOWN-PC /e/Go/Vid  
master)  
$ go run temp.go  
0xf84002c700[0 0 1 2 3] 0x  
os编程基础/go-fundamental-pro  
$ go run temp.go  
0xf84002c700  
[0 0 0 1 2 3] 0xf84002c700  
Unknown@UNKNOWN-PC /e/Go/Vid  
master)  
$ go run temp.go  
0xf84002c700  
[0 0 0 1 2 3] 0xf84002c700  
[0 0 0 1 2 3 1 2 3] 0xf840000  
Unknown@UNKNOWN-PC /e/Go/Vid  
master)  
$ go run temp.go  
[3 4 5] [2 3]  
Unknown@UNKNOWN-PC /e/Go/Vid  
master)  
$ go run temp.go  
[3 4 5] [2 3]  
[3 4 9] [2 3]  
Unknown@UNKNOWN-PC /e/Go/Vid  
master)  
$ go run temp.go  
[3 4 5] [2 3]  
[9 4 5] [2 9]  
Unknown@UNKNOWN-PC /e/Go/Vid  
master)  
$
```

The screenshot shows a Sublime Text 2 window with a file named `temp.go` containing the following Go code:

```

1 package main
2
3 import (
4     "fmt"
5 )
6
7 func main() {
8     s1 := make([]int, 3, 6)
9     fmt.Printf("%p\n", s1)
10    s1 = append(s1, 1, 2, 3)
11    fmt.Printf("%v %p\n", s1, s1)
12 }
13

```

To the right of the code editor is a terminal window titled "Git Bash" showing the execution of the code:

```

master) $ go run temp.go
de UNKNOWN@UNKNOWN-PC /e/Go/Vide
master) $ go run temp.go
fg UNKNOWN@UNKNOWN-PC /e/Go/Vide
master) $ go run temp.go
de UNKNOWN@UNKNOWN-PC /e/Go/Vide
master) $ go run temp.go
3 9
fg UNKNOWN@UNKNOWN-PC /e/Go/Vide
master) $ go run temp.go
3 9
panic: runtime error: slice b
goroutine 1 [running]:
main.main()
E:/Go/Video_Courses/0
0x121
goroutine 2 [syscall]:
created by runtime.main
C:/Users/ADMINI~1/App
me/proc.c:221
exit status 2
UNKNOWN@UNKNOWN-PC /e/Go/Vide
master) $ go run temp.go
0xf84002c700[0 0 1 2 3] 0xf
o编程基础/go-fundamental-prog
$ 

```

The screenshot shows a Microsoft PowerPoint slide titled "Go编程基础" (Go Programming Foundation). The slide content includes:

Go编程基础

- Reslice**
 - Reslice时索引以被slice的切片为准
 - 索引不可以超过被slice的切片的容量cap()值
 - 索引越界不会导致底层数组的重新分配而是引发错误
- Append**
 - 可以在slice尾部追加元素
 - 可以将一个slice追加在另一个slice尾部
 - 如果最终长度未超过追加到slice的容量则返回原始slice
 - 如果超过追加到的slice的容量则将重新分配数组并拷贝原始
- Copy**

On the left side of the slide, there is a thumbnail navigation bar showing slides 33 through 39. The slide number 37 is highlighted.

Go编程基础

Go编程基础

Slice与底层数组的对应关系

本图来源《Go Web编程》

讲师：

单击此处添加备注

幻灯片 第 36 张, 共 39 张 | "主管人员" | 中文(中国) | 印章 96%

The screenshot shows a Sublime Text 2 window with a dark theme. On the left is the code editor containing a file named 'temp.go' with the following content:

```
temp.go
1 package main
2
3 import (
4     "fmt"
5 )
6
7 func main() {
8     a := []byte{'a', 'b', 'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j', 'k'
9     sa := a[2:5]
10    sb := sa[3:5]
11    fmt.Println(string(sb))
12 }
13
```

The cursor is positioned at line 10, column 17. The status bar at the bottom indicates 'Line 10. Column 17'. To the right of the code editor is a terminal window titled 'Git Bash' showing the output of running the program multiple times with different arguments:

```
$ go run temp.go
[1 2 3 4 5 6 7 8 9 0]
[1 2 3 4 5]
Unknown@UNKNOWN-PC /e/Go/V
master)
$ go run temp.go
3 10
Unknown@UNKNOWN-PC /e/Go/V
master)
$ go run temp.go
3 3
Unknown@UNKNOWN-PC /e/Go/V
master)
$ go run temp.go
[0 0 0]
Unknown@UNKNOWN-PC /e/Go/V
master)
$ go run temp.go
[99 100 101]
Unknown@UNKNOWN-PC /e/Go/V
master)
$ go run temp.go
cde
Unknown@UNKNOWN-PC /e/Go/V
master)
$ go run temp.go
de
Unknown@UNKNOWN-PC /e/Go/V
master)
$ go run temp.go
fg
Unknown@UNKNOWN-PC /e/Go/V
master)
$ go run temp.go
de
Unknown@UNKNOWN-PC /e/Go/V
master)
$
```

Go编程基础

基础

讲师：

呈》

E:\Go\Video_Courses\01Go编程基础\go-fundamental-programming\temp.go - Sublime Text 2 (UNREGISTERED)

File Edit Selection Find Goto Tools Project Preferences Help

temp.go x

```
1 package main
2
3 import (
4     "fmt"
5 )
6
7 func main() {
8     a := []byte{'a', 'b', 'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j', 'k'}
9     sb := a[3:5]
10    fmt.Println(string(sb))
11 }
12
```

Line 9, Column 17: Saved E:\Go\Video_Courses\01Go编程基础\go-fundamental-programming\temp.go (UTF-8)

Tab Size 96

The diagram shows a horizontal array of 11 boxes, each containing a letter from 'a' to 'k'. A red bracket above the third box indicates the start of a slice. A blue bracket below the fifth box indicates the end of the slice. The slice is labeled 'sb' and contains the letters 'h', 'i', 'j', and 'k', which are highlighted in yellow.

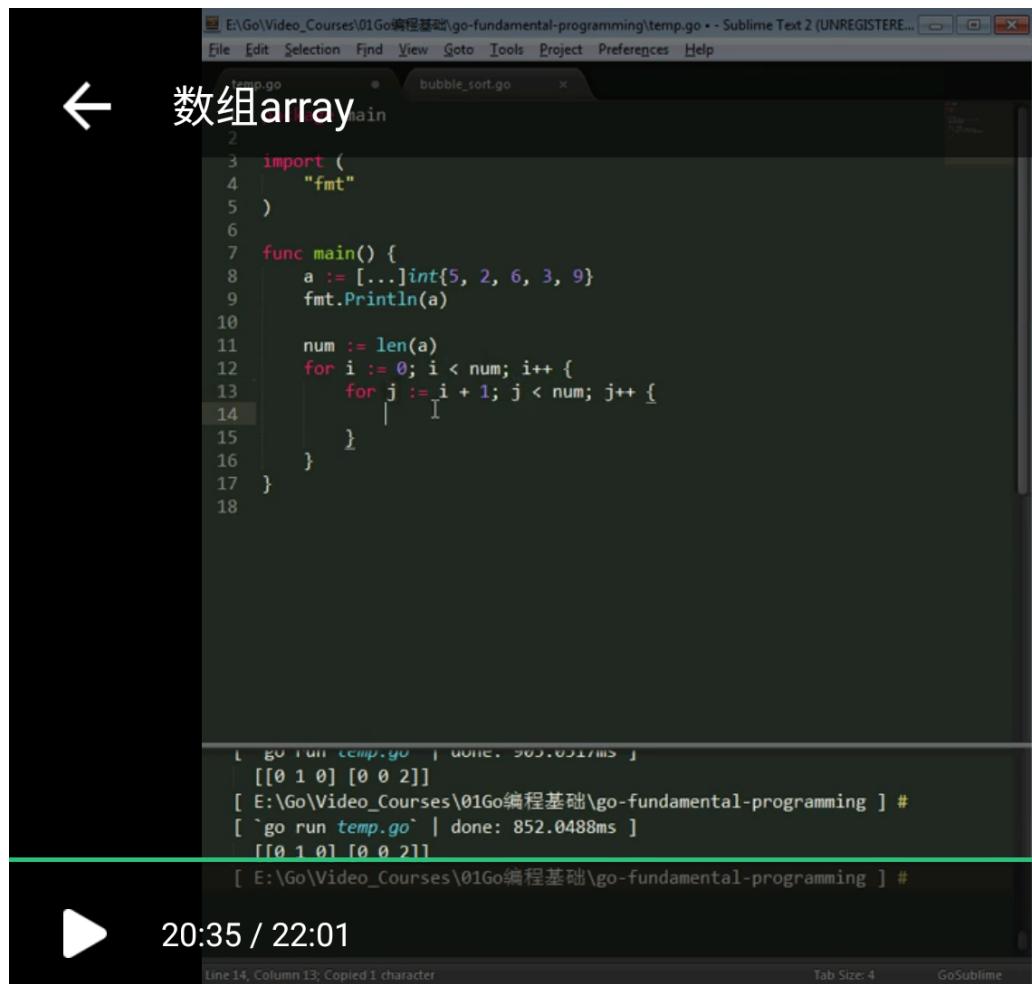
基础

[n]<type>, n>=0
有不同长度的数组为

,但不可以使用<或>
回一个指向数组的指

讲师

高清



The screenshot shows a Sublime Text 2 window with two tabs: 'temp.go' and 'bubble_sort.go'. The 'temp.go' tab is active and contains the following Go code:

```
1 package main
2 import (
3     "fmt"
4 )
5
6 func main() {
7     a := [...]int{5, 2, 6, 3, 9}
8     fmt.Println(a)
9
10    num := len(a)
11    for i := 0; i < num; i++ {
12        for j := i + 1; j < num; j++ {
13            if a[i] > a[j] {
14                a[i], a[j] = a[j], a[i]
15            }
16        }
17    }
18 }
```

The terminal below the editor shows the output of running the code:

```
[ temp.go ]$ go run temp.go | done: 905.051ms
[[0 1 0] [0 0 2]]
[ E:\Go\Video_Courses\01Go编程基础\go-fundamental-programming ] #
[ `go run temp.go` | done: 852.0488ms ]
[[0 1 0] [0 0 2]]
```

The status bar at the bottom indicates: Line 14, Column 13; Copied 1 character; Tab Size: 4; GoSublime.



20:35 / 22:01