Packages in Go

PACKAGE SYNTAX

```
package pkg
// code
```

PACKAGE STRUCTURE

package network

tcp.go

udp.go

network.go

package main

main.go

start.go

init.go

PACKAGE TYPES

main (executable)

```
go run *.go
```

```
go build -o exec
```

func main

non main (non executable)

```
import "github.com/gophertuts/go-basics/pkg"
```

PACKAGE NAMING & STRUCTURE

📁 app/network

`package network` ✅

📁 app/net

`package network` ❌

📁 app/net_err

`package net_err` ❌

📁 app/netErr

`package netErr` ❌

📁 app/utils

`package utils` ❌

📁 app/pkg
  📁 app/sub_pkg ❌
    📁 app/sub_pkg
      📁 app/sub_pkg

📁 app/network
network.go
tcp.go ✅
udp.go

📁 app/pkg

`package main`

`package pkgA` ❌

`package pkgB`

PACKAGE IMPORTS

```
package pkg
import "github.com/gophertuts/go-basics/net"
```
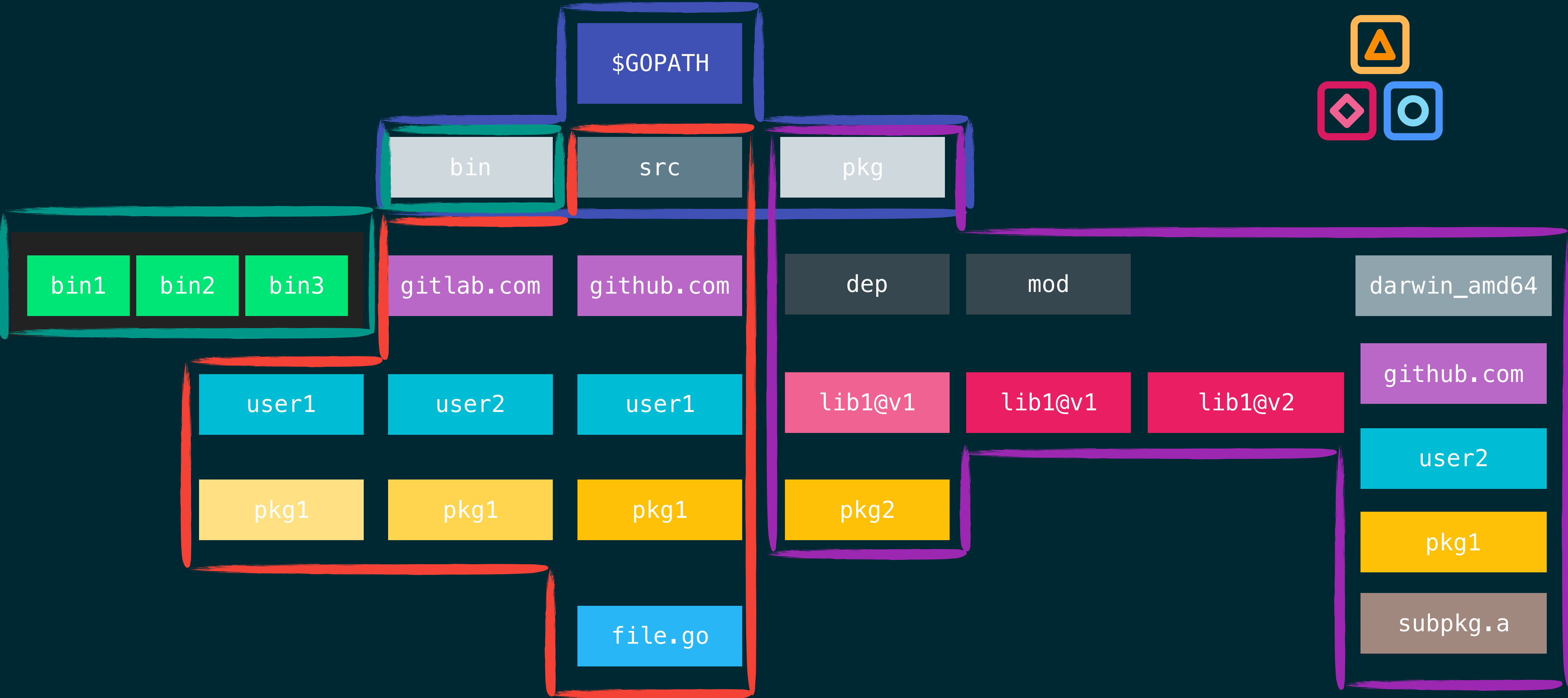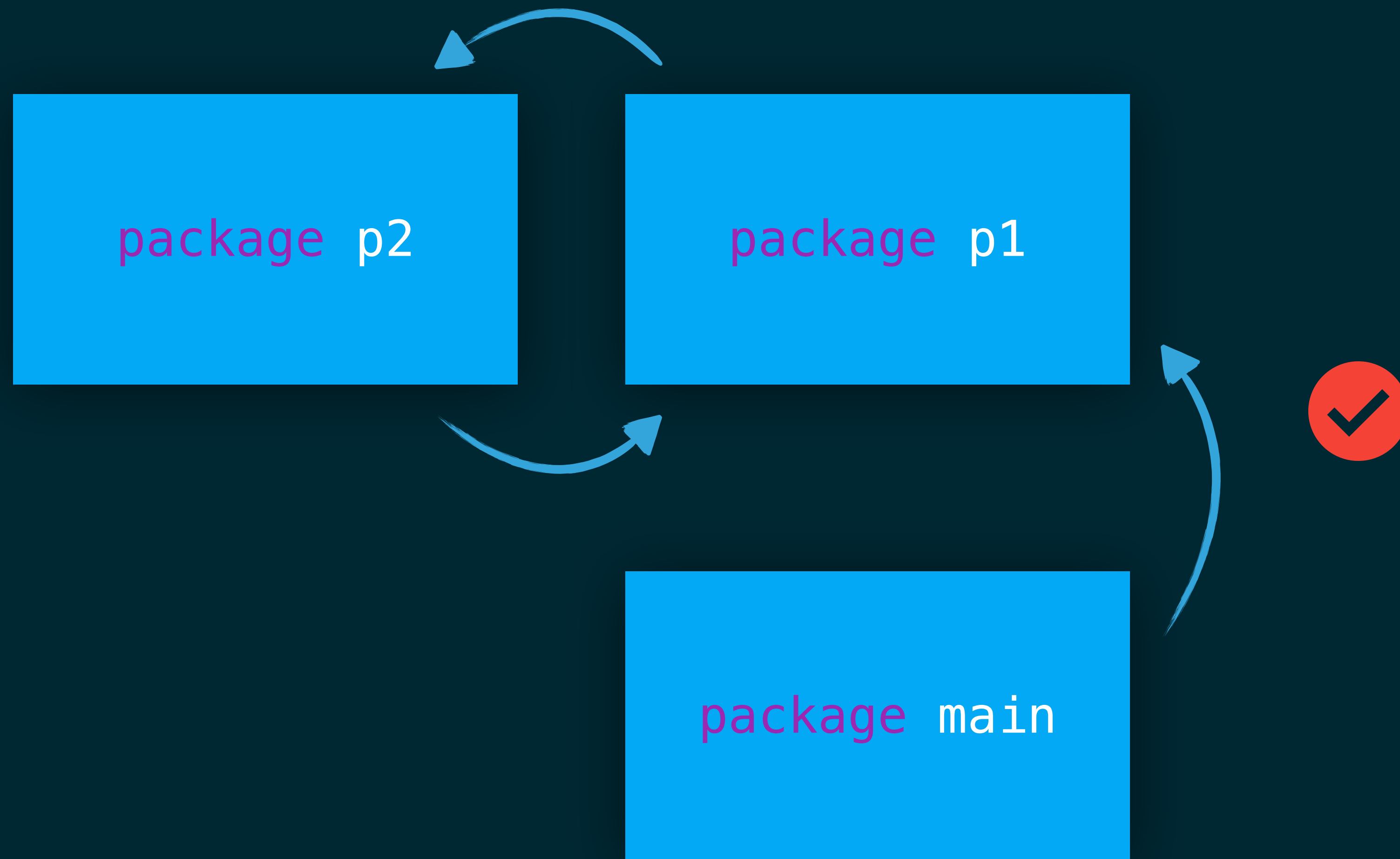
HOST

USER/ORGANIZATION

PROJECT/REPO

PACKAGE

$GOPATH

$GOPATH

bin | src | pkg

bin1 | bin2 | bin3

gitlab.com | github.com | dep | mod | darwin_amd64

github.com

user1 | user2 | user1 | lib1@v1 | lib1@v1 | lib1@v2

user2

pkg1 | pkg1 | pkg1 | pkg2 | pkg1

subpkg.a

file.go

CROSS REFERENCE

package p2

package p1

package main

FILE GLOBALS & LOCALS

Locals

| package name |
| imports |

Globals

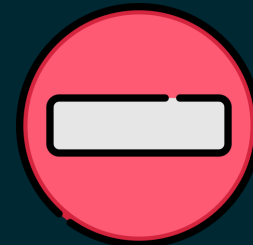| constants |
| variables |
| functions |

TEST FILES

p1_test.go

package p1

p2_test.go

package p2

PACKAGE VISIBILITY (SCOPE)
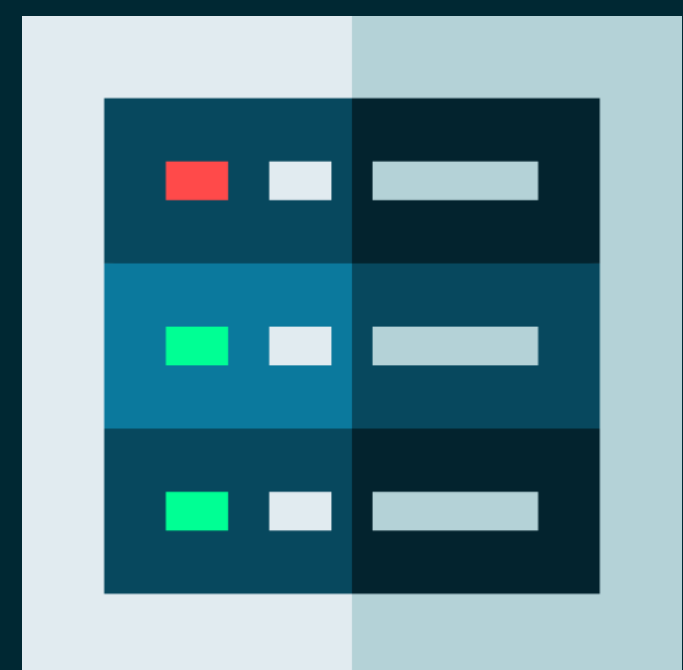
Exported
_____

Visible & accessible in all files
of the same package & outside the package

unExported
_____

Visible & accessible inside all files of the
same package, and inaccessible outside of it

GO GET

github.com   steevehook   repo

go get ./... $GOPATH/src

SPECIAL DIRECTORIES

📁 vendor

📁 internal

📁 pkg

📁 cmd

📁 .dir   📁 _dir

📁 testdata