

An Ultimate GopherLabs Hands-on Labs



Who Am I?

Sangam Biradar



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EngineTops.com

- Docker Community Leader , Bangalore
 - Author :- lightweight Kubernetes with k3s with packt Publication
 - Gopherlabs – 200+ tutorials
 - Okteto – Kubernetes For Developer , Bangalore
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The image shows the front cover of a book titled "Learn Lightweight Kubernetes with K3s". The cover features a blue and orange design with the title in large white letters. Below the title, it says "A practical guide to build and deploy cloud-native apps with Kubernetes". At the bottom, it credits "Walter Dolce and Sangam Biradar" and includes the "Packt" logo.



If you are using code from other packages, you list the packages that you want to **import**. This allows you to use code in your program that other people have written. **Packages** are also sometimes referred to as **libraries**.

Every go file begins with a package name. The name of the package must be the same as the folder name **except** for package main. Package main is the **entry point** for your program.

```
○ ○ ○  
package main  
import "fmt"  
  
func main() {  
    fmt.Println("Hello world!")  
}
```

The “fmt” package is being imported.

A **parameter** is the variable which is part of the func's signature (func declaration). An **argument** is an expression used when calling the func.

source: modified from stackoverflow



This function is declared with no (choose one):

- parameters
- arguments

```
package main

import "fmt"

func main() {
    fmt.Println("Hello world!")
}
```

https://play.golang.org/p/-N_yGtploWI

A screenshot of a Google search results page. The search query is "literal in programming". The results show a snippet from Wikipedia defining a literal as a value written exactly as it's meant to be interpreted. Below the snippet is a link to a Stack Overflow question about the meaning of "literal".

Google literal in programming

Web Videos Images News Shopping More Search tools

About 8,310,000 results (0.29 seconds)

In **programming**, a value written exactly as it's meant to be interpreted. In contrast, a variable is a name that can represent different values during the execution of the program. And a constant is a name that represents the same value throughout a program. But a **literal** is not a name -- it is the value itself. Jan 27, 2009

c# - What does the word "literal" mean? - Stack Overflow
stackoverflow.com/questions/485119/what-does-the-word-literal-mean

"Hello world" is an example of a **literal** (choose one):

- parameter
- argument

If you are using code from other packages, you list the packages that you want to **import**. This allows you to use code in your program that other people have written. Packages are also sometimes referred to as **libraries**.

Code from the “fmt” package is being used. `Println` is a **function** declared in the “fmt” package. For a **function** to be accessible to other packages, it must be **Capitalized**. This is analogous to “**public**” in other languages.

The **func main()** is the entry point for your program; the first code that will run. The **package main** can also have other functions besides **func main()**.

An **expression** specifies the computation of a value by applying operators and functions to operands. [source: effective go](#)

```
○ ○ ○
package main
import "fmt"
func main() {
    fmt.Println("Hello world!")
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```

The “fmt” package is being imported.

https://play.golang.org/p/-N_yGtploWI





- go build and go run

- go build main.go
- go run main.go

A statement is a complete line of code that performs some action, while an expression is any section of the code that evaluates to a value. Expressions can be combined “horizontally” into larger expressions using operators, while statements can only be combined “vertically” by writing one after another, or with block constructs.

<http://www.quora.com/Whats-the-difference-between-a-statement-and-an-expression-in-Python>



The screenshot shows a web browser window with the URL www.golang-book.com/books/web/01-01 in the address bar. The browser interface includes standard navigation buttons (back, forward, refresh, home), a search bar, and a toolbar with various icons for apps and bookmarks. A text block is displayed in the main content area:

So Go programs are built out of packages, which are made up of files, which include functions each of which has a series of statements and statements are made up of expressions, which are, in turn, made up of operands, operators and function calls.

The screenshot shows a web browser window with the same URL as the first one. The text block in the main content area is:

In a sense you can think of a Go program like a book, where each package is a chapter of that book, each function is a paragraph, each statement is a sentence and each expression is word or phrase.



- What is the purpose of **package main** in a go program?
- What function must **package main** contain?
- Can **package main** contain a function called **func blueSky()** ?
- What makes a func accessible outside a package?

• Review Questions

- Parameters vs Arguments - What is the difference between the two?
- Expressions vs Statements- What is the difference between the two?
- Variable, Constant, Literal –
 - Define the three concepts above.
 - Give an example of a literal from the “hello world” example.

• Review Questions



- Build “hello go” in your editor
- Use **go run** from the command line to make your “hello go” program execute
- Go build does what when run on a folder containing package main?
- Go build does what when run on a folder containing a library package?



- Go install does what when run on a folder containing package main?
- Go install does what when run on a folder containing a library package?

• References

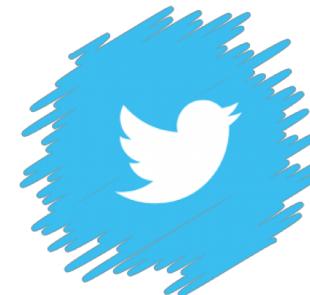
- <https://gopherlabs.collabnix.com>
- <https://godoc.org/>
- <https://golang.org/doc/>
- <https://collabnix.github.io/gopherlabs/Beginners/hello-world.html>

Thanks!

Any questions?



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