
Go
Everything You Wanted to Know About Go
and
Didn't Know to Ask

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Abstract

Working at GCI Network Services, OSS I needed a location for Go documentation.
Hence this document.

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List of Figures

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List of Definitions and Abbreviations

- **MOA** - Municipality of Anchorage

Introduction

Introduction to the L^AT_EX Template with Examples.

Packages

Types

Type such as arrays, structs, slices, and maps.¹

¹“More types: structs, slices, and maps. Learn how to define types based on existing ones: this lesson covers structs, arrays, slices, and maps.”
<https://tour.golang.org/list>

Functions

Variables

GOPATH

“The `GOPATH` environment variable is used to specify directories outside of `$GOROOT` that contain the source for Go projects and their binaries.”²

Flow Control

Flow control of code using conditionals like `for`, `if`, `else`, `switch`, and `defer`.³

Iteration

While, `for`, `do until`, and `such`.
[FIXME: Need data here]

²`GOPATH`, `golang/go`, <https://github.com/golang/go/wiki/GOPATH>

³“Flow control statements: `for`, `if`, `else`, `switch` and `defer`. Learn how to control the flow of your code with conditionals, loops, switches and defers.”
<https://tour.golang.org/list>

Database Access

“Two fast and reliable drivers are available for MySQL :

- MyMySQL
<http://github.com/ziutek/mymysql>
- Go-MySQL-Driver
<https://github.com/Go-SQL-Driver/MySQL>

I’ve used both of them in production, programs are running for months with connection numbers in the millions without failure.”⁴

MyMySQL

[FIXME: Need data here]

⁴What’s the recommended way to connect to MySQL from Go?
<http://stackoverflow.com/questions/11353679/whats-the-recommended-way-to-connect-to-mysql-from-go>

Go-MySQL-Driver

“A MySQL-Driver for Go’s [database/sql](#) package”⁵

Installation

Simple install the package to your [\\$GOPATH](#) with the [go tool](#) from shell:⁶

```
$ go get github.com/go-sql-driver/mysql
```

Make sure Git is installed on your machine and in your system’s PATH.”

Usage

“Go MySQL Driver is an implementation of Go’s [database/sql/driver](#) interface. You only need to import the driver and can use the full [database/sql](#) API then.

Use `mysql` as `driverName` and a valid [DSN](#) as `dataSourceName`.”⁷

```
import "database/sql"
import _ "github.com/go-sql-driver/mysql"

db, err := sql.Open("mysql", "user:password@/dbname")
```

⁵Go-MySQL-Driver, <https://github.com/Go-SQL-Driver/MySQL/>

⁶Ibid.

⁷Usage, Go-MySQL-Driver,
<https://github.com/Go-SQL-Driver/MySQL/#usage>

DSN (Data Source Name)

“The Data Source Name has a common format,... (optional parts marked by squared brackets):⁸

[username[: password]@][protocol[(address)]]/dbname[?param1 = value1&...¶mN = valueN]

A DSN in its fullest form:

username : password@protocol(address)/dbname?param = value

Except for the databasename, all values are optional. So the minimal DSN is:

/dbname

If you do not want to preselect a database, leave dbname empty:

/

This has the same effect as an empty DSN string:

Alternatively, `Config.FormatDSN` can be used to create a DSN string by filling a struct.”

⁸DSN (Data Source Name),
<https://github.com/Go-SQL-Driver/MySQL/#dsn-data-source-name>

Comments

“Comments serve as program documentation. There are two forms:

1. Line comments start with the character sequence `//` and stop at the end of the line.
2. General comments start with the character sequence `/*` and stop with the first subsequent character sequence `*/`.

A comment cannot start inside a rune or string literal, or inside a comment. A general comment containing no newlines acts like a space. Any other comment acts like a newline.”⁹

Examples

⁹Comments, Lexical elements, The Go Programming Language Specification, Version of January 5, 2016, <https://golang.org/ref/spec#Comments>

Appendix

Links

About the go command

The Go Programming Language

https://golang.org/doc/articles/go_command.html

A Tour of Go

The tour covers the most important features of the language, mainly: Basics (Packages, variables, functions, flow control statements: for, if, else, switch, defer, more types: structs, slices, and maps), Methods and interfaces, and Concurrency.

<https://tour.golang.org/welcome/1>

Go example projects

This repository contains a collection of Go programs and libraries that demonstrate the language, standard libraries, and tools.

<https://github.com/golang/example>

Go-MySQL-Driver

Go MySQL Driver is a lightweight and fast MySQL driver.

<https://github.com/Go-SQL-Driver/MySQL>

How to Write Go Code

<https://golang.org/doc/code.html>

List of integrated circuit packaging types

From Wikipedia, the free encyclopedia

https://en.wikipedia.org/wiki/List_of_integrated_circuit_packaging_types

MyMySQL

MySQL driver

<http://github.com/ziutek/mymysql>

Package Testing

`"import testing"`

The Go Programming Language

<https://golang.org/pkg/testing/>

Package types

`import "go/types"`

Package types declares the data types and implements the algorithms for type-checking of Go packages. Use `Config.Check` to invoke the type checker for a package. Alternatively, create a new type checked with `NewChecker` and invoke it incrementally by calling `Checker.Files`.

<https://golang.org/pkg/go/types/>

The Go Programming Language
<https://golang.org/pkg/go/types/>

The Go Programming Language Specification
Version of January 5, 2016
The Go Programming Language
<https://golang.org/ref/spec#Selectors>

ziecekey/goini

A simple, flexible, efficient and powerful INI parser for Golang.

import github.com/ziecekey/goini

<https://github.com/ziecekey/goini>