

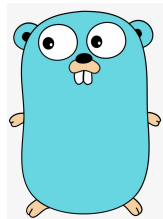
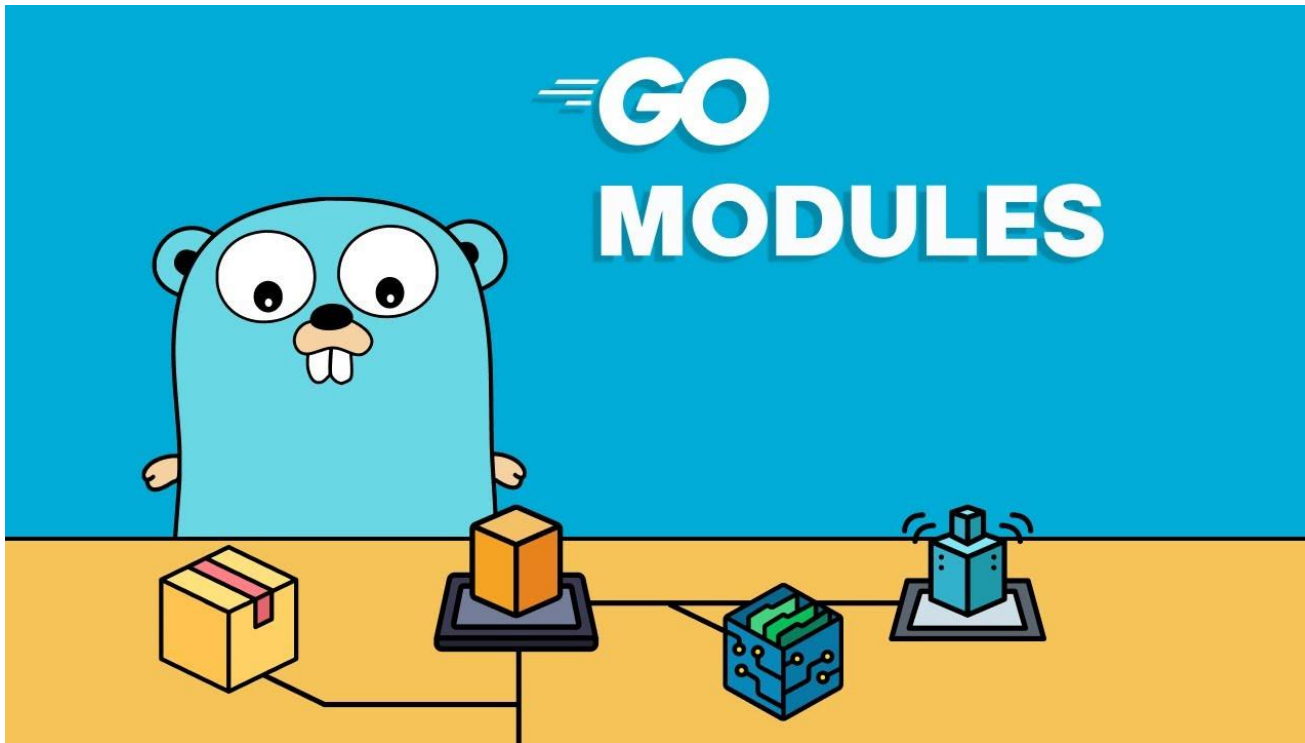
Welcome To



DISRUPT YOUR INDUSTRY

Go Modules

Modules are how Go manages dependencies



Go Modules

Pre-Go Modules Era

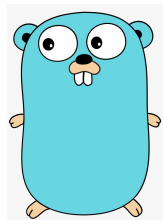
- Need our source code to be present inside the **GOPATH** directory.
- A Go program cannot import a dependency unless it is present inside `$GOPATH`.
- There is no way to install a package pointed to a specific Git version.



Go Modules

Modules Era

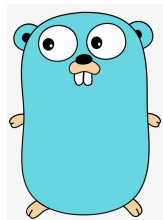
- We should be able to work from any directory.
- We should be able to install the precise version of a dependency package to avoid breaking changes.
- We should be able to import multiple versions of the same dependency package.
- We need a file that can list the dependencies of our project.



Go Modules

What are Go modules

- A module is a collection of packages that are released, versioned, and distributed together.
- Modules may be downloaded directly from version control repositories or from module proxy servers.
- A module is identified by a **module path**



Module Paths

A module path is the canonical name for a module

A module's path is the prefix for package paths within the module.

A module path should describe both what the module does and where to find it.

Go modules commands

`go mod init [module-path]`

The `go mod init` command initializes module and writes a new `go.mod` file in the current directory

Module Files : go.mod

Module path

Go version

Directive

require directive

A require directive declares a minimum required version of a given module dependency

replace directive

A replace directive replaces the contents of a specific version of a module, or all versions of a module, with contents found elsewhere

Go modules commands

go mod tidy

go mod tidy ensures that the go.mod file matches the source code in the module

Module Files : go.sum

- Contains cryptographic hashes of the module's direct and indirect dependencies
- The go command can use this in many situations to detect misbehavior by proxies or origin servers.

THANK YOU