Introduction to Go Programming

The Go Programming Language

Made by Google.

Installing Go

1. Download the Go distribution for your OS from
   https://go.dev/dl/
2. Install Go using the instructions for your OS at
   https://go.dev/doc/install

If installation was successful, you should see this at the command line (is the command prompt. The command to type appears after the prompt, and the output of the command is printed on the next line.):

```
 go version
go version go1.17.3 darwin/amd64
```

GOPATH

After installing Go, the `go` executable will be in your path. But the `go` command (more later) can also

- ▶ instal executable utilities, and
- ▶ store local copies of third party module dependencies to speed up builds.

These packages are stored in the file path named in the `GOPATH` environment variable. If `GOPATH` is not set, default is `$HOME/go`. Good idea to set it explicitly by placing

```
export GOPATH=$HOME/go
export PATH=$PATH:$GOPATH/bin
```

in your `$HOME/.profile` for bash, or `$HOME/.zshenv` for zsh. Alter the values above if you want to customize the `GOPATH` location.

Hello, World!

Since the Kernighan and Ritchie classic, *The C Programming Language*[1], it's tradition to start with a program that simply print's `Hello, world` to the console.

Create a file named `hello.go` with the following contents:

```go
package main

import "fmt"

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

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[1]https:
//www.informit.com/store/c-programming-language-9780131103627

The go Command

go run go build