Introduction

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From the Get Go

- Go / Golang is an open-sourced programming language designed by Google employees Robert Griesemer, Rob Pike, and Ken Thompson

- Go aims to "eliminate the slowness and clumsiness of software development at Google, and thereby to make the process more productive and scalable"

- Go has modern features like *garbage collection* and takes advantage of multi-core computer capabilities with *built-in concurrency support*.

Compiling / Running

- `go build main.go` Compiles the program *main.go* similar to compiling a C program

- `./main` Is then used to execute the built programming - forgoing its `.go` extension

- `go run main.go` Can be used to immediately compile and run a program, and does **not** create an executable file

Packages

- Every Go program starts with a *package declaration*.

- `package main` tells the compiler the prgram is an executable, not a library

- The `import` keyword brings in code from other packages

- `import "fmt"` imports the format (pronounced "fumpt") that contains IO functions like `Println`

- To import multiple packages wrap the packages in `()` parentheses. Aliases can be given before a package name to make referencing easier

```
import (
    "fmt"
    t "time"
)
```

Basic Structure

- The `func` keyword denotes the start of a function declaration.

- `func` is followed by the name of the function.

- After name is a pair of parentheses `()` and a set of curly braces `{}`

- Comments are similar to Java `//` for single line `/* */` for multi line

Go Resources

- `go doc` pulls up documentation.

- `go doc time` search specific packages with a space

- `go doc time.Now` search specific functions with a period

```go
package main

import "fmt"

//This is a basic Go Program that prints "Hello World"

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

Quiz Scorecard

100%

👏 Great job!

✕	0	✓	10

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