LESSON 1

Go

Welcome to Go

```
main.go
package main
import "fmt"
func main() {
  fmt.Println("Hi")
}
```

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GO PROGRAMMING

LESSON 1

Welcome to Go

Why Go, installing it, go run, packages and your first program

Why Go?



- Simple — 25 keywords
- Fast — compiled, one binary
- Concurrent — goroutines, channels

01

Installing Go

terminal

```
$ go version
go version go1.23.2 linux/amd64
$ mkdir hello && cd hello
$ go mod init example.com/hello
go: creating new go.mod: module example.com/hello
```

- Download Go from go dot dev, or use brew or your package manager. go version checks the …
- The go command does everything: run, build, test, format and manage dependencies. There is …

02

Hello, World

main.go

```go
package main

import "fmt"

func main() {
    fmt.Println("Salaam, World!")
}

// $ go run .
// Salaam, World!
```

- Every Go file starts with a package line. The main package with a main function is where a …
- import fmt brings in the formatting package, and fmt dot Println prints a line. Run it with …

03

go build: One Binary

terminal

```
$ go build -o hello .
$ ./hello
Salaam, World!
$ GOOS=linux GOARCH=amd64 go build -o hello-linux .
$ GOOS=windows go build -o hello.exe .
```

- go build compiles your program into one executable file with no dependencies. Copy it to a …
- Set GOOS and GOARCH to build for another system, for example a Linux server from your …

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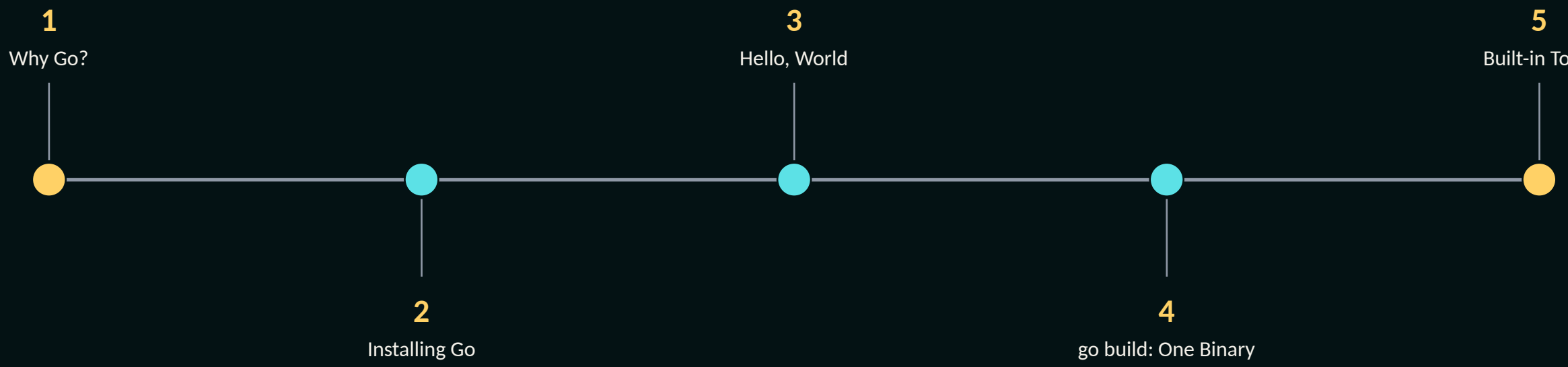
Built-in Tools

Command	Does
`go run .`	compile and run
`go build`	make a binary
`go fmt ./...`	format all code
`go vet ./...`	find suspicious code
`go test ./...`	run tests

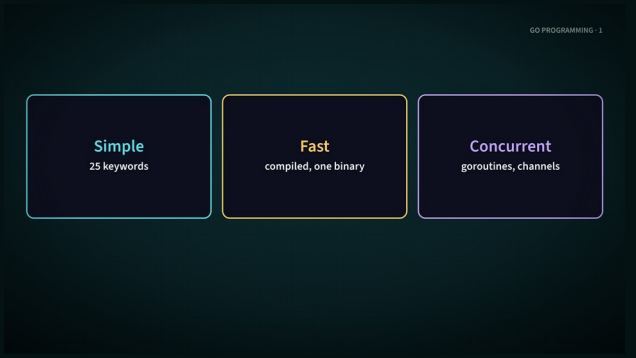
- gofmt formats every Go file the same way, so there are no style arguments. go vet finds …
- Install the Go extension in VS Code and it runs these tools for you every time you save.

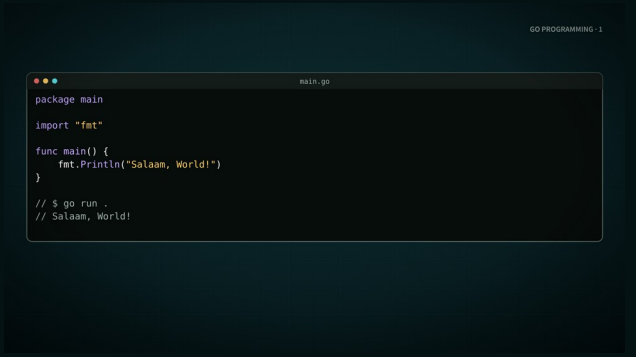
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Lesson Map


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Sources and Further Reading





Thank you for watching

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