Go Training

Session 1

Go Introduction

- Go/Golang : Free and Open Source
- Created at and maintained by Google
- Launched in the year 2009
- System programming language

Go Programming Syntax

- Semicolon are implicit at the end of a line
- Commenting styles
- Combined declaration /initialization operator

```
x := 5
```

hello.go

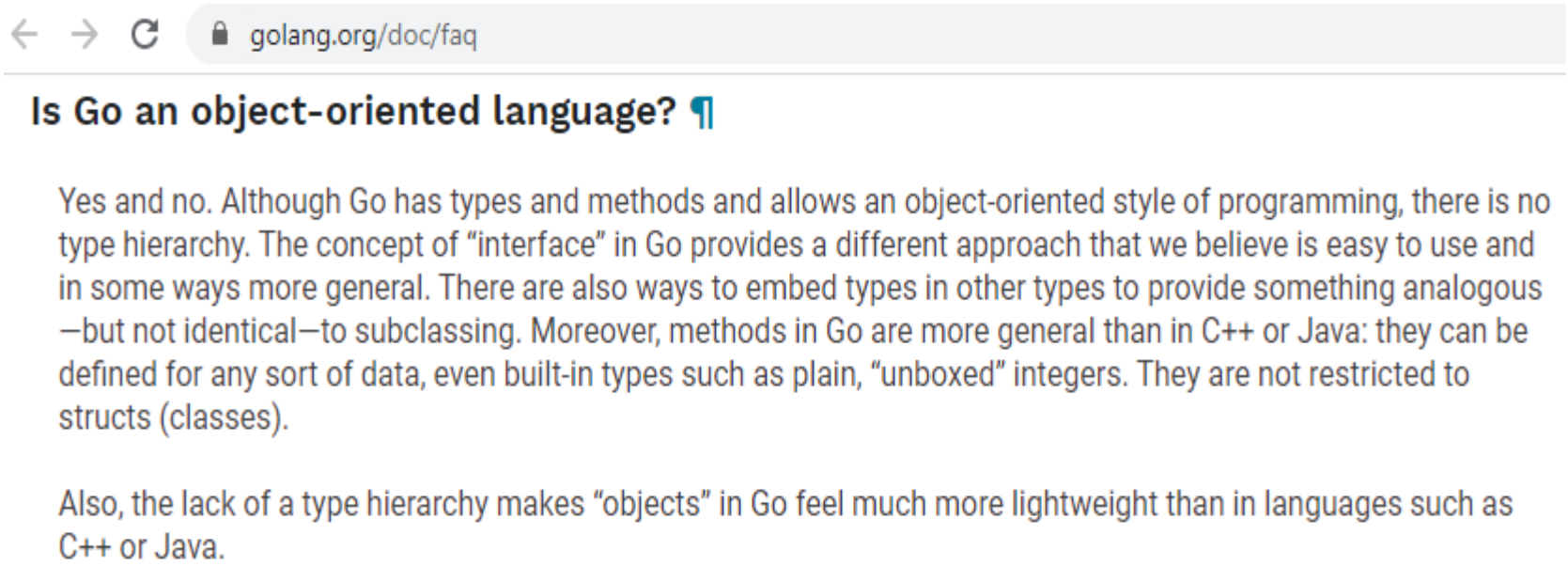
```go
package main

import "fmt"

func main() {

    // prints Hello World
    fmt.Println("Hello World")
}

```

What GO offers and what it does not

- Statically typed, compiled language : like C++/Java
- First Class Function; Package system
- Allows type Inference
- Supports inbuilt concurrency
- Garbage collection : automatic memory management
- Strings are Immutable and are UTF-8 encoded
- Return multiple value from functions
- Great Standard library
- Defer statement

What GO offers and what it does not

- NOT allows implicit numeric conversion
- Does not have CLASSES
- Does not have EXCEPTIONS
- NO function overloading
- GO doesn’t strictly support OOP
  - However it is a lightweight object oriented language



GO vs Other languages

- Simpler syntax compared to other compiled languages
- C/C++
  - Good at Speed, scale and reliability
  - NOT that good at simplicity
- Java
  - Good at scale and reliability
  - Moderately simple
  - Moderately efficient/fast
- Python
  - Scalable, very simple
  - NOT so efficient and reliable
- Golang
  - Gives you a feel of writing a scripting language
    - Without compromising the essence of low-level programming language

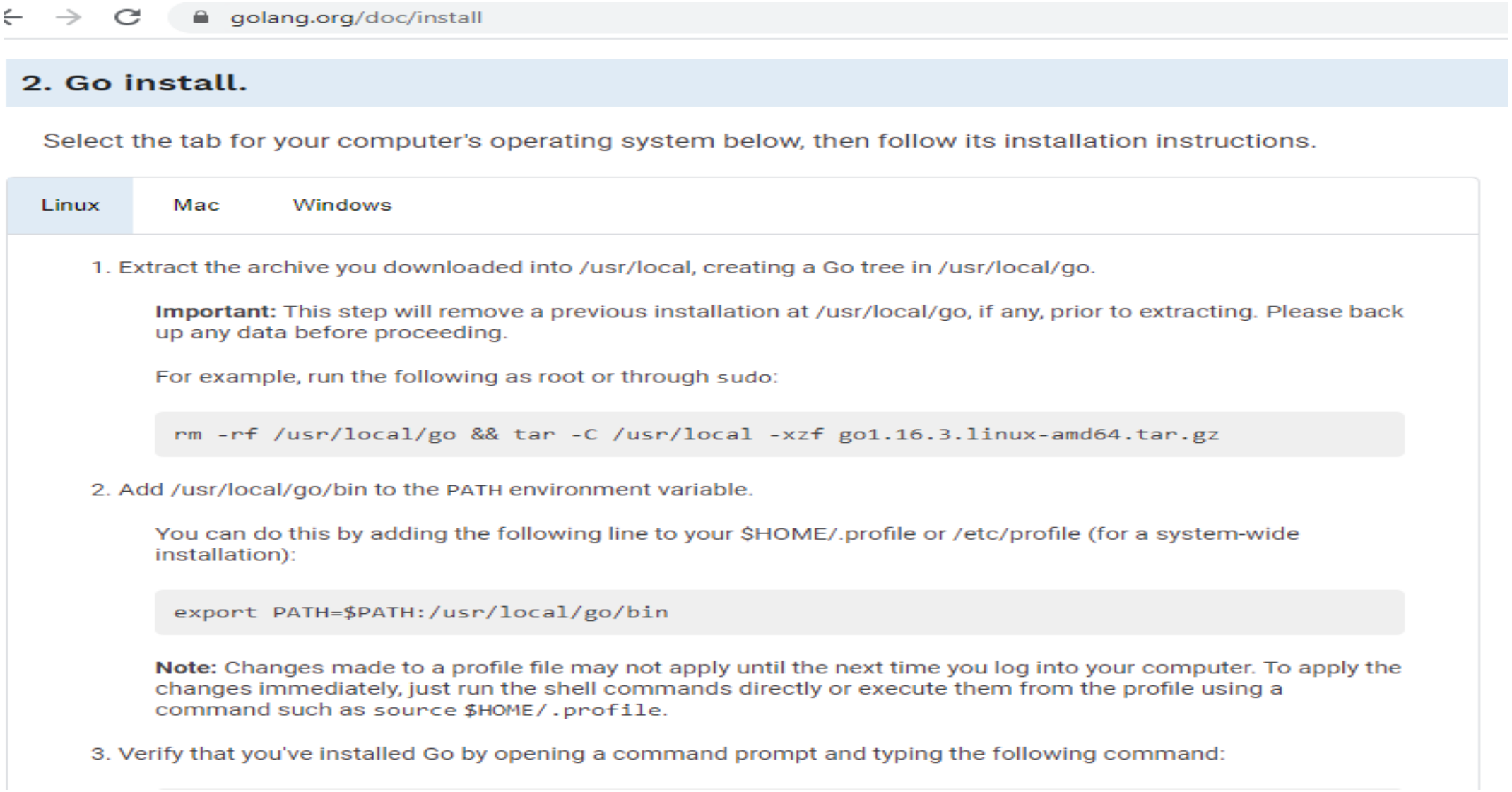
Hello World Program

Compiling and running

- go run hello.go
- go build hello.go
  - ./hello
- Go build –o newName hello.go
  - ./newName

Install GO

- Golang.org/doc/install



Thank You