Packages and Imports

This lesson explains how to import different libraries and packages in GO

WE'LL COVER THE FOLLOWING

Packages

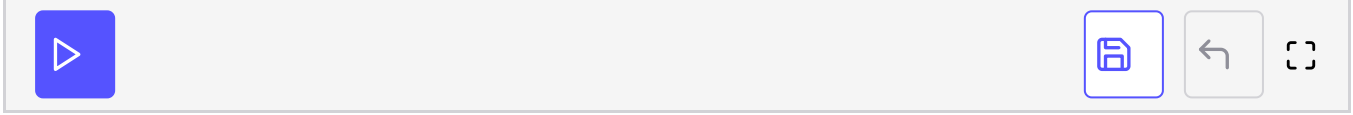
Every Go program is made up of packages. Programs start running in package `main`.

Environment Variables

Key:	Value:
GOPATH	/go

```
package main
import "fmt"

func main() {
        fmt.Printf("Hello, World!\n")
}
```



If you are writing an executable code (versus a library), then you need to define a `main` package and a `main()` function which will be the entry point to your software.

By convention, the package name is the same as the last element of the import path. For instance, the “math/rand” package comprises files that begin with the statement package rand.

Import statement examples

Environment Variables

Key:	Value:
GOPATH	/go

```
import "fmt"
import "math/rand"
```

Or grouped:

Environment Variables

Key:	Value:
GOPATH	/go

```
import (
    "fmt"
    "math/rand"
)
```

Check out the two links below for more information about *packages* and *imports* in GO.

- Go Tour: Packages
- Go Tour: Imports

Below are two examples showing how to use each of these imports.

Environment Variables

Key:	Value:
GOPATH	/go

```
package main

import (
        "fmt"
        "math/rand"
)

func main() {
        fmt.Println("My favorite number is", rand.Intn(10))
}
```

Down below is another example to help further understand how imported packages can be used.

Environment Variables

Key:	Value:
GOPATH	/go

```
package main

import (
        "fmt"
        "math"
)

func main() {
        fmt.Printf("Now you have %g problems.", math.Sqrt(7))
}
```

Usually, nonstandard lib packages are namespaced using a *web url*. For instance, there is some Rails logic ported to GO, including the cryptography code used in *Rails 4*. The source code is hosted on **GitHub** containing a few packages, in the following repository: http://github.com/mattetti/goRailsYourself

To import the crypto package, you would need to use the following import statement:

Environment Variables

Key:	Value:
GOPATH	/go

```
import "github.com/mattetti/goRailsYourself/crypto"
```

The next lesson further explains this in more detail. Read on to find out more!