

Challenge Time

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Last week. . .

We had a look at some concepts partially or wholly unique to Go.

- ▶ Defer
- ▶ Multiple return values
- ▶ Interfaces
- ▶ Goroutines
- ▶ Channels

This week

We're going to go through a set of challenges to practice what we've learned.

We'll spend 10 minutes on each challenge, and then solve it together.

Setup

Each challenge will ask you to write a function. The setup for each one should look something like this...

```
package main
```

```
func solution() {  
    // your code here...  
}
```

```
func main() {  
    solution()  
}
```

Challenge 1: Counting Sheep

Consider a slice of sheep where some sheep may be missing from their place. Write a function `countSheep` that counts the number of sheep present in the slice (true means present) and returns the count.

e.g.

```
var sheep = []bool{
    true,  true,  false, true,
    false, true,  false, true,
    false, true,  true,  true,
    true,  true,  true,  false,
}

func main() {
    fmt.Println(countSheep(sheep)) // 11
}
```

Challenge 2: Name to Initials

Write a function `getInitials` which takes a single string, which is a person's first and last name, and returns a string of the person's initials.

e.g. *"John Smith"* => **"J.S"*

```
func main() {  
    fmt.Println(getInitials("John Smith")) // "J.S"  
    fmt.Println(getInitials("Bob Ross")) // "B.R"  
    fmt.Println(getInitials("Luke Skywalker")) // "L.S"  
}
```

Challenge 3: Paper, Scissors, Rock

Write a function `psr` which takes two strings, giving the move of two different players, and return a string with who won.

e.g.

```
func main() {  
    fmt.Println(psr("paper", "scissors")) // "Player 2 wins"  
    fmt.Println(psr("rock", "scissors")) // "Player 1 wins"  
    fmt.Println(psr("paper", "rock")) // "Player 2 wins"  
}
```

Challenge 4: Reverse a string

Write a function `rev` which takes a string, and returns a version of the string with all characters in reverse order.

e.g.

```
func main() {  
    fmt.Println(rev("use the force")) // "ecrof eht esu"  
    fmt.Println(rev("hello world")) // "dlrow olleh"  
}
```


Challenge 5: Check for Anagrams

Write a function `isAnagram` which takes two strings, and returns `true` if all the letters in the first words can be found in the second word.

e.g.

```
func main() {  
    fmt.Println(isAnagram("casper", "parsec")) // true  
    fmt.Println(isAnagram("dog", "cat")) // false  
}
```

lesson 5, fin

If you had any trouble, now is the time to ask for help!

Questions?