

# Module 2: Functions and Organization

## Topic 2.1: Variadic and Deferred

# Variable Argument Number

- Functions can take a variable number of arguments
- Use ellipsis **...** to specify
- Treated as a slice inside function

```
func getMax(vals ...int) int {  
    maxV := -1  
    for _, v := range vals {  
        if v > maxV {  
            maxV = v  
        }  
    }  
    return maxV  
}
```

# Variadic Slice Argument

- Can pass a slice to a variadic function
- Need the `...` suffix

```
func main() {  
    fmt.Println(getMax(1, 3, 6, 4))  
  
    vslice := []int{1, 3, 6, 4}  
  
    fmt.Println(getMax(vslice...))  
}
```

# Deferred Function Calls

- Call can be **deferred** until the surrounding function completes
- Typically used for cleanup activities

```
func main() {  
    defer fmt.Println("Bye!")  
  
    fmt.Println("Hello!")  
}
```

# Deferred Call Arguments

- Arguments of a deferred call are evaluated immediately

```
func main() {  
    i := 1  
    defer fmt.Println(i+1)  
    i++  
    fmt.Println("Hello!")  
}
```