生物信息学系
Department of Bioinformatics

Lab 2 for loop and function

Xiaoqin Yang
yangxiaoqin@suda.edu.cn

The advantages of writing a function

- Functional programming can be advantageous when you are going to be performing lots of different operations on data that has a fixed, known amount of variation.

- The benefits of Functional programming is brevity, because code can be more concise and concurrency.

https://www.quora.com/What-are-the-advantages-of-functional-programming-over-object-oriented-programming-What-are-some-languages-that-are-mainly-functional

https://stackoverflow.com/questions/128057/what-are-the-benefits-of-functional-programming

The structure of a function

```
myfunction <- function(arg1, arg2, ... ){
        Statements
        return(object)
}
```

A simple example

```
>   plusone <- function(a, b) {
+ c <- a + b
+ return(c)
+ }
>
>
> plusone(1,7)
[1] 8
>
```

- We need a function like this:

  h(x,n)=1+x+x^2+……+x^n

- Please write this function in R script.

- Named the the folder with your “student id” + “_” + “your name” (e.g. 007_jamesbound) .