GNBF5010-Assignment-5

Ping Chong Ho

Saturday, November 29, 2014

Iterative Fibonacci

A iterative fibonacci function which print out the nth fibonacci number:

```
fib2 <- function(n){
  start <- Sys.time()
  if(n==0||n==1){
    print(n)
    return(n)}
  if(n==2) return(1)
  f1 = f2 = 1
    print(f1)
  for(i in seq(1,n-1)){
    f=f1+f2
    print(f1)
    f2=f1
    f1=f
  }
  end <- Sys.time()
```

Plot 1 to 300 Fibonacci against time by iterative Fibonacci

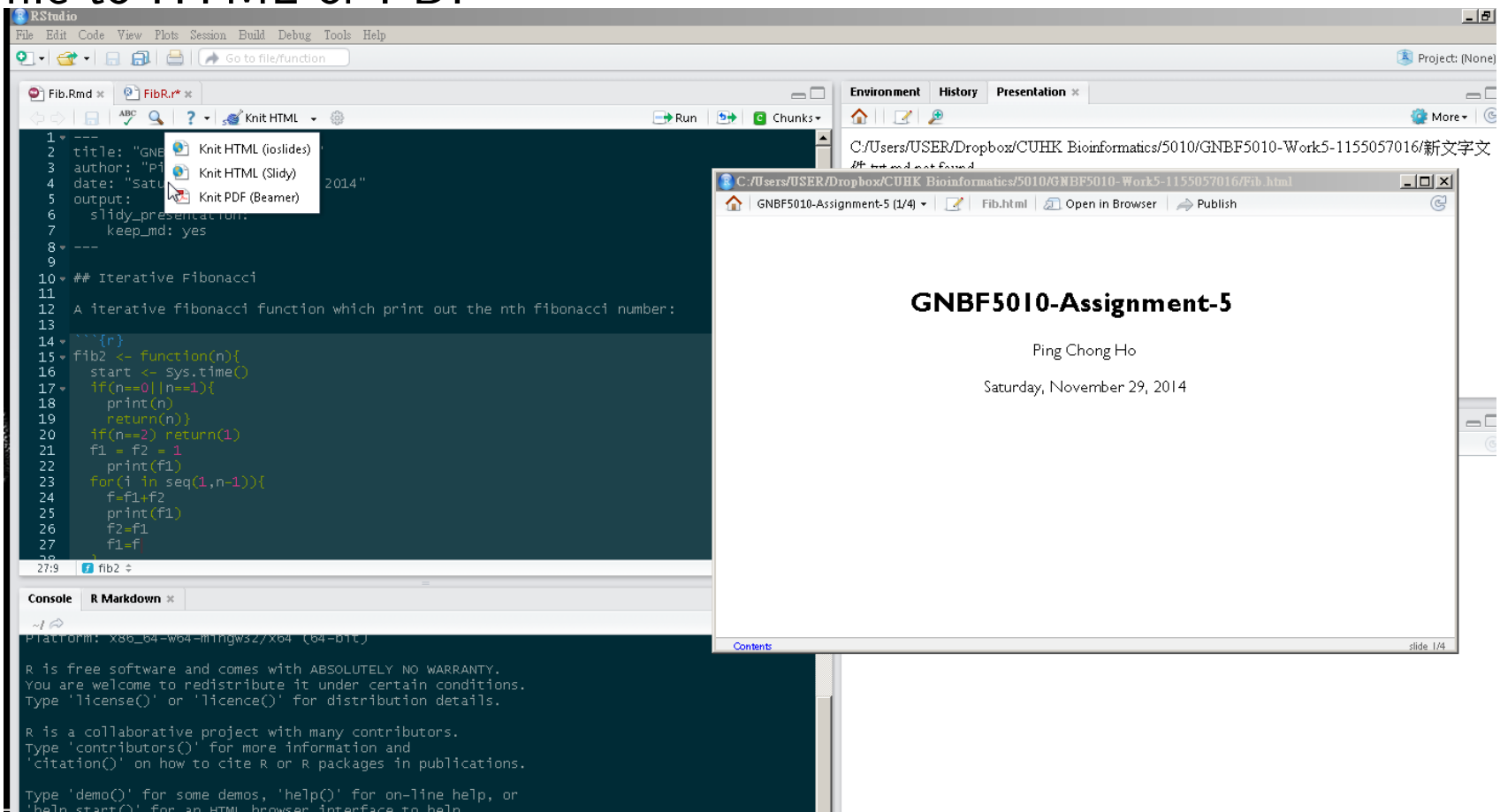
```
y <- 1:10
plot(sapply(y,fib2))
```

```
## [1] 1
## [1] 1
## [1] 1
## [1] 2
## Time difference of 0 secs
## [1] 1
## [1] 1
## [1] 2
## [1] 3
## Time difference of 0 secs
## [1] 1
## [1] 1
## [1] 2
## [1] 3
## [1] 5
```

How to create mark down file and export to HTML in RStudio

RStudio provide a easy setup on knitr with package and export markdown file in one step effort.

After install Knit package. A icon provide a quick creation of Rmd file to HTML or PDF



Conclusion

In R languages, we can program same Fibonacci algorithm as in C, Java or Python. But with the use of Knit. We can provide a reporducbile report with a just-in-time R scripit.