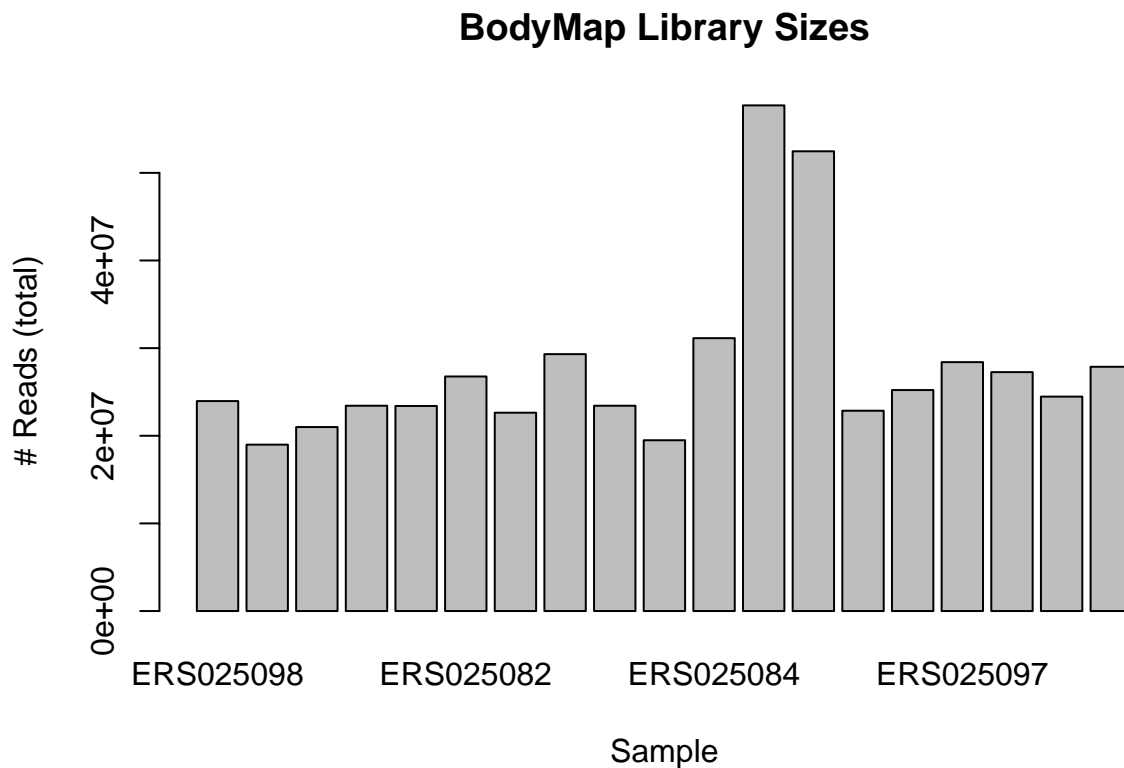# Demo 04: Rmarkdown

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Overview

- Another really useful library for R is rmarkdown.
- It is built on top of another library (knitr) and provides an elegant and simple way to generate HTML, PDF, etc. documents which incoporate both **text** and **code**.
- Great for making sure your analyses are reproducible!

Example Figure

```r
# generate plot of library sizes
barplot(colSums(exprs(bodymap.eset)), main="BodyMap Library Sizes",
        xlab="Sample", ylab="# Reads (total)")
```


Example Table

```r
library(knitr)
dat <- as.data.frame(colSums(exprs(bodymap.eset)))
colnames(dat) <- 'Number of Reads'
kable(dat)
```

	Number of Reads
ERS025098	23957600
ERS025092	18987359
ERS025085	20995462
ERS025088	23426900
ERS025089	23397325
ERS025082	26762377
ERS025081	22630393
ERS025096	29314904
ERS025099	23426381
ERS025086	19489508
ERS025084	31135063
ERS025087	57697453
ERS025093	52460922
ERS025083	22857384
ERS025095	25215879
ERS025097	28400943
ERS025094	27261469
ERS025090	24465463
ERS025091	27871222

Vesion Information

```
sessionInfo()
```

```
## R version 3.3.1 (2016-06-21)
## Platform: x86_64-pc-linux-gnu (64-bit)
## Running under: Arch Linux
##
## locale:
##  [1] LC_CTYPE=en_US.UTF-8       LC_NUMERIC=C
##  [3] LC_TIME=en_US.UTF-8        LC_COLLATE=en_US.UTF-8
##  [5] LC_MONETARY=en_US.UTF-8    LC_MESSAGES=en_US.UTF-8
##  [7] LC_PAPER=en_US.UTF-8       LC_NAME=C
##  [9] LC_ADDRESS=C               LC_TELEPHONE=C
## [11] LC_MEASUREMENT=en_US.UTF-8 LC_IDENTIFICATION=C
##
## attached base packages:
## [1] parallel  stats     graphics  grDevices utils     datasets  methods
## [8] base
##
## other attached packages:
## [1] knitr_1.14        Biobase_2.32.0      BiocGenerics_0.18.0
## [4] rmarkdown_1.0     nvimcom_0.9-23      setwidth_1.0-4
## [7] colorout_1.1-0
##
## loaded via a namespace (and not attached):
## [1] Rcpp_0.12.7    digest_0.6.10  formatR_1.4    magrittr_1.5
## [5] evaluate_0.9   highr_0.6      stringi_1.1.1  tools_3.3.1
## [9] stringr_1.1.0  yaml_2.1.13    htmltools_0.3.5
```